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"ALEKSANDËR XHUVANI"
Faculty of Business and Law



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**Sustainable Growth, Digital
Innovation and Market Dynamics:
Bridging Business and Law**

PROCEEDINGS BOOK



Faculty of Business and Law, Elbasan, Albania



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UNIVERSITY OF ELBASAN “ALEKSANDËR XHUVANI”

FACULTY OF BUSINESS AND LAW



**PROCEEDINGS BOOK OF
THE 13TH INTERNATIONAL CONFERENCE**

**“SUSTAINABLE GROWTH,
DIGITAL INNOVATION AND
MARKET DYNAMICS: BRIDGING
BUSINESS AND LAW”**

**EDITED BY:
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Elbasan, April 25, 2026

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Foreword

On April 25, 2026, the Faculty of Business and Law at the University of Elbasan “Aleksandër Xhuvani” organized the 13th International Scientific Conference “Sustainable Growth, Digital Innovation and Market Dynamics: Bridging Business and Law”. After a careful and scrupulous process of reviewing each paper from our distinguished reviewers, the editorial board of the Conference compiled and prepared the Proceedings Book, the materialized output of this endeavor. This volume brings together a wide range of scholarly contributions that reflect the multidimensional challenges and opportunities facing contemporary economies, legal systems, institutions, businesses, and societies in an era marked by rapid technological transformation, environmental responsibility, market uncertainty, and the need for sustainable development.

The theme of this conference was chosen with the conviction that sustainable growth can no longer be understood only as an economic objective, nor digital innovation merely as a technological process. Today, development requires an integrated perspective that connects economic performance with social responsibility, legal certainty, environmental governance, technological progress, and institutional resilience. In this context, the bridge between business and law becomes essential. Business creates value, innovation, employment, and competitiveness, while law provides the regulatory, ethical, and institutional framework through which this development can become inclusive, fair, accountable, and sustainable.

The 13th International Conference continued the academic tradition of the Faculty of Business and Law in creating a platform for dialogue among researchers, academics, professionals, policymakers, and young scholars from Albania and abroad. The conference aimed to encourage interdisciplinary exchange and to support the development of new ideas, empirical findings, theoretical reflections, and policy-oriented recommendations. The participation of scholars from different universities, institutions, and countries gave the conference an international dimension and strengthened its role as a meeting point for academic cooperation and scientific debate.

The proceedings included in this volume reflect the diversity and richness of the conference program. The contributions are organized around several major thematic areas that correspond to some of the most important debates of our time. The first area concerns sustainability, green economy and environmental governance with a specific focus on such topics as climate change, sustainable food production, circular transformation, environmental law, green financing, sustainable tourism and regional development. These studies highlight the importance of environmental responsibility and the need for coordinated action by public institutions, private actors, civil society and academia.

A second major area of the conference focuses on digital transformation, artificial intelligence, and fintech. The papers presented in this field examine the role of artificial intelligence in business, urban development, financial analysis, legal practice, consumer protection, digital cadaster, e-commerce, cryptocurrencies, data protection, and the changing relationship between traditional banking and fintech innovation. These contributions illustrate that digital transformation is not only about using new tools, but a more profound process that touches business models, institutional capacities, legal frameworks, professional ethics and human skills.

The third area, European integration, law, and governance, brings together research dealing with legal approximation, public procurement, financial control, alternative dispute resolution, consumer protection, prison standards, trafficking victims, returned emigrants, minority rights, gender equality, artificial intelligence and criminal law, competition policy, and international sports arbitration. These papers are particularly relevant in the context of Albania’s European integration process, where legal harmonization must be accompanied by effective implementation, institutional strengthening, and substantive convergence with European standards.

Another important group of contributions focuses on economic development, finance, and business dynamics. The studies look at issues such as financial reporting education, sustainable business growth, income convergence in the Western Balkans, inflation and economic growth, environmental management accounting, the financing of small and medium-sized enterprises, digital banking, alternative payment methods, sensory branding, human resource management in the context of Industry 4.0 and tourism development. All of them give useful insights into how economies, enterprises, financial institutions and markets are responding to structural changes and emerging challenges.

The conference also placed significant emphasis on education, society, health, and social development. The papers in this area explore social inclusion, youth resilience, dental tourism, curriculum alignment with labor-market needs, demographic transition, access to education for refugees and asylum seekers, brain–computer interfaces in marketing research, occupational health and safety, the Bologna Process, antibiotic consumption, and the historical development of medicine. These contributions underline the fact that sustainable development must be understood not only through economic indicators, but also through human capital, social inclusion, public health, education, and institutional responsibility.

A special dimension of the conference was the dedicated session on “Sustainable development of mineral raw materials and their importance for digital innovation and green economy,” organized in cooperation with the Regional Innovation Center of EIT RawMaterials Albania. This session enriched the conference by connecting academic discussion with the strategic importance of raw materials, digital innovation, green technologies, skills development, and cooperation between government, academia, business, and civil society. The roundtable discussions emphasized the need for structured data, digital platforms, modern technologies, updated curricula, student engagement, and stronger links between education, research, industry, and public policy.

The papers included in this proceedings book demonstrate the value of interdisciplinary research. They show that the most pressing problems of our time are insoluble within the confines of a single discipline. Sustainable growth requires economic analysis but also legal interpretation. Digital innovation demands technological expertise but also ethical reflection and regulatory certainty. Market dynamics require business strategy, but also social responsibility and institutional trust. Environmental protection requires scientific evidence, but also legal enforcement, financial instruments, and responsible governance. For this reason, the interaction between business, law, technology, society, and public policy is at the heart of this volume.

This proceedings book is also a testimony to the commitment of the Faculty of Business and Law to promote research, international cooperation, and academic excellence. As an institution that combines the fields of business and law, our Faculty has a special responsibility to encourage scientific work that responds to real societal needs and contributes to the development of the country and the wider region. Through this conference, the Faculty of Business and Law seeks to support not only the dissemination of research results, but also the creation of academic networks, the involvement of young researchers, and the strengthening of cooperation with national and international partners.

We would like to express our sincere gratitude to all authors who contributed their research to this volume. We thank all these people for their work, dedication and intellectual engagement that made this proceedings book possible. We would also like to thank the keynote speakers, panel chairs, co-chairs, reviewers, moderators, organizing committee members, administrative staff and all of the participants who contributed to the successful organization of the conference. Their commitment has ensured a productive academic environment and a meaningful exchange of ideas.

Special thanks are addressed to the leadership of the University of Elbasan “Aleksandër Xhuvani” for their continuous support, and to the partner institutions and the invited guests, whose participation added to the academic and institutional value of the event. The presence of international scholars and institutional representatives broadened the perspective of the conference and encouraged further collaboration in research, innovation and academic development.

We hope that this proceedings book will be a useful resource for researchers, students, professionals, policymakers and all those interested in the interconnected fields of sustainable development, digital innovation, market dynamics, legal transformation and social progress. The contributions included here do not provide final answers to all challenges, but they offer important reflections, evidence and perspectives that can inspire further research and practical action.

Assoc. Prof. Dr. Shpëtim Çerri

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Table of Contents

AI FOR SUSTAINABLE URBAN DEVELOPMENT: A DATA-DRIVEN ANALYSIS OF URBAN MOBILITY, AIR QUALITY, AND PUBLIC TRANSPORT	1
Irva DAFA, Malvin JUSUFI, Teodora PLAKA	
DEMOGRAPHIC TRANSITION, HUMAN CAPITAL AND REGIONAL SUSTAINABILITY: EVIDENCE FROM THE ELBASAN DISTRICT	12
Eglantina ZYKA, Sokol SHURDHI	
GREEN ECONOMY TRANSITION PROCESS IMPACT ON THE ENVIRONMENT IN ALBANIA	21
Xhensila SINANAJ, Mikela SINANAJ	
PRISON OVERPOPULATION AND THE POSITIVE OBLIGATIONS OF THE ALBANIAN STATE ACCORDING TO EUROPEAN STANDARDS	29
Ermira TAFANI, Regis TOPURJA, Bleona TAHIRI	
BRIDGING THE DATA-CREDIT CHASM: A COMPARATIVE INSTITUTIONAL ANALYSIS OF FINTECH DATA UNDERUTILIZATION IN GHANA SME LENDING	40
Anaba PEACE	
MYTH VS. EVIDENCE: DO PUBLIC ECONOMICS FACULTIES IN ALBANIA ALIGN BETTER WITH 2030 LABOUR-MARKET SKILLS? BENCHMARKING CURRICULA WITH A CURRICULUM MARKET ALIGNMENT INDEX (CMAI)	48
Eugen MUSTA, Manjola NAÇO	
LEGISLATION ON TRAFFICKING VICTIMS IN ALBANIA FROM THE PERSPECTIVES OF SOCIAL WORK AND ECONOMICS: STRENGTHS, LIMITATIONS, AND IMPLEMENTATION CHALLENGES	61
Alisa BIÇOKU, Jonida BIÇOKU	
THE ROLE OF CIVIL SOCIETY AND NGOS IN PROMOTING MINORITY RIGHTS AND GENDER EQUALITY: ADVOCACY, LEGAL SUPPORT, COMMUNITY PROGRAMS, AND GENDER RESPONSIVE BUDGETING	66
Diamanta VITO, Megi MARKU	
DIGITAL TRANSFORMATION AND COMPETITIVENESS IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT OF ECONOMIC STRUCTURES	78
Richard G. KAROVSKI	
PUBLIC INFRASTRUCTURE AND LOCAL LEGAL GOVERNANCE	92
Aida SARAÇI, Megi FETAH, Anxhelina ZHIDRO	
EXAMINATION OF THE DIGITAL TRANSFORMATION PERFORMANCE OF THE VISEGRAD COUNTRIES USING INTEGRATED LOPCOW-APLOCO METHODS	101
Mehmet Akif KARA, Kurtuluş Yılmaz GENÇ	
EDUCATION, WOMEN'S LABOUR AND INDUSTRY 5.0: POLICY CHALLENGES FOR SUSTAINABLE GROWTH IN TÜRKIYE	108
Fatmanur ÖZEN	

THE IMPACT OF SALES AND CLIENT MANAGEMENT SYSTEMS ON FIRM PERFORMANCE: EVIDENCE FROM FIRMS IN THE WESTERN BALKANS	122
Pranvera SELGJEKAI	
MAPPING THE RESEARCH LANDSCAPE OF THE WATER–AGRICULTURE–TOURISM NEXUS IN EUROPE: A BIBLIOMETRIC ANALYSIS	128
Okello Don OUMA, Abraham Ng’ondo OTHIENO, Hellen OGUTU, Diána Koponicsné GYÖRKE, Tibor FARKAS	
THE DEVELOPMENT OF E-COMMERCE AND THE CHALLENGES OF CONSUMER RIGHTS PROTECTION IN THE ALBANIAN CONTEXT	139
Arsiola DYRMISHI, Matilda BALLIU	
MANAGERIAL COMPETENCIES TOWARDS SUSTAINABLE AND CIRCULAR TRANSFORMATION: A STRUCTURED REVIEW AND INTEGRATIVE FRAMEWORK	166
Teuta HAZIZI	
THE FORMATION OF EDUCATIONAL POLICY AND THE PROCESS OF HISTORICAL DEVELOPMENT OF THE EUROPEAN UNION	190
Elarta FETAHU	
BOLOGNA PROCESS AND ITS IMPLEMENTATION IN ALBANIA	200
Elarta FETAHU	
CURRENT DEVELOPMENTS IN THE ALBANIAN AND EUROPEAN UNION LEGAL FRAMEWORK REGARDING RETURNED EMIGRANTS	209
Silvana DODE, Denisa NAQELLARI, Marsida HAXHIU	
IMPRISONED AND PRE-DETAINEES MINORS IN ALBANIA AND THEIR RIGHT TO HEALTH CARE: LEGAL FRAMEWORK AND PRACTICAL CHALLENGES	223
Denisa NAQELLARI, Silvana DODE	
HUMAN RESOURCE MOTIVATION AND SUSTAINABLE BUSINESS GROWTH IN THE CONTEXT OF DIGITAL INNOVATION AND MARKET DYNAMICS	233
Lindita CENAJ, Eliona GREMI	
CATCHING UP IN THE WESTERN BALKANS: CONDITIONAL INCOME CONVERGENCE AND STRUCTURAL DETERMINANTS	239
Kladiola GJINI, Elona DUSHKU	
BETWEEN FRUGAL INNOVATION AND SUSTAINABILITY A BIBLIOMETRIC REVIEW	252
Nertila BUSHO, Mirësi ÇELA	
ANTIBIOTIC UTILIZATION AND PRESCRIPTION PRACTICES: A RETROSPECTIVE ANALYSIS OF ANTIBIOTIC CONSUMPTION IN 2022	262
Jonida BINJAKU, Kladiola GJINI	
DIGITAL CADASTER, NEW PERSPECTIVES AND CHALLENGES IN ALBANIA	271
Saida BEJTJA, Dritan BEJTJA	
REGIONAL DEVELOPMENT AND ECONOMIC CONVERGENCE IN THE GREEN TRANSITION: A SYSTEMATIC LITERATURE REVIEW OF INTEGRATED AGRO-PROCESSING, TOURISM, AND WATER SYSTEMS IN DEVELOPING COUNTRIES	276

Abraham Ng’ondo OTHIENO, Don Ouma OKELLO, Hellen OGUTU, Arnold CSONKA

EDUCATION, SOCIAL INCLUSION, AND YOUTH RESILIENCE IN EU ACCESSION CONTEXTS: COMPARATIVE EVIDENCE FROM THE WESTERN BALKANS	289
Erinda BLLACA, Armela XHAHO	
NONLINEAR EFFECTS OF INFLATION ON ECONOMIC GROWTH: A DYNAMIC PANEL THRESHOLD ANALYSIS	318
Luljeta SADIKU, Nimete BERISHA, Murat SADIKU	
DIGITAL BANKING AND FINTECH_ GLOBAL TRENDS AND PERSPECTIVES FOR ALBANIA	328
Eliona GREMI, Andi DUQI	
OCCUPATIONAL HEALTH AND SAFETY IN THE EU AND ALBANIA: LEGAL HARMONIZATION, IMPLEMENTATION, AND INTEGRATION PROSPECTS	337
Klajd HETA, Irena DIMUSHI	
THE EUROPEAN ENTREPRENEURIAL ECOSYSTEM: DOMAIN INTEGRATION, POLICY FRAMEWORKS AND INNOVATION DYNAMICS	347
Teuta HAZIZI, Diamanta VITO	
FINANCIAL REPORTING EDUCATION IN ALBANIA: A JEAN MONNET APPROACH	369
Eliona GREMI, Valbona BALLKOCI, Marsida MORINA	
E-COMMERCE AND THE ECONOMY OF ONLINE TRADE IN ALBANIA	378
Jonida BEKTESHI, Marsida ASHIKU	
THE HISTORICAL DEVELOPMENT OF ALBANIAN MEDICINE: A DEMOGRAPHIC AND STATISTICAL PERSPECTIVE	386
Diljana DUSHKU, Elena SIMONOFSKI	
FIGHT AGAINST FINANCIAL- ECONOMIC CRIME, ORGANIZED CRIME	390
Rezana Balla	
ARTIFICIAL INTELLIGENCE AND THE CHALLENGES OF CRIMINAL LAW IN DIGITAL BUSINESS	400
Gentian KOÇI, Linert LIREZA	
CHALLENGES IN ENVIRONMENTAL MANAGEMENT ACCOUNTING IMPLEMENTATION IN ALBANIA. INSIGHTS FROM A MEDICINAL HERB PROCESSING COMPANY	409
Marsel SULANJAKU, Meri MUÇELLI, Anila ÇEKREZI	
FINTECH INTEGRATION AND COOPERATION WITH TRADITIONAL BANKS CASE OF STUDY, ALBANIA	415
Encola TEQJA, Klea HUNÇI, Laura TEQJA	
THE USE OF INFORMATION TECHNOLOGY IN COMMERCE (E-COMMERCE)” CASE OF STUDY: ALBANIA	422
Laura TEQJA, Encola TEQJA, Klea HUNÇI	
THE INVESTMENT CLIMATE AND ACCESS TO FINANCING FOR SMALL AND MEDIUM-SIZED ENTERPRISES IN BULGARIA	440
Radostina YULEVA-CHUCHULAINA, Davide DURMISHI	
ACCESS TO EDUCATION AND SOCIAL INTEGRATION FOR REFUGEES AND ASYLUM SEEKERS IN ALBANIA: INTERNATIONAL AND EU ACQUIS FRAMEWORK	455
Elarta FETAHU	

INSIDE THE EXPERIENCE: AI, EMOTIONS, AND MEANING IN BUNKART VISITORS’ NARRATIVES	468
Shpëtim ÇERRI	
FROM LEGAL APPROXIMATION TO SUBSTANTIVE CONVERGENCE: COMPETITION POLICY IN ALBANIA’S EUROPEAN INTEGRATION PROCESS	482
Arbër GJETA, Tea THAÇI, Gloria LLESHANAKU, Fabian ZHILLA	
BANKING WITHOUT BANKS: THE ILLUSION OF AUTONOMY AND THE NECESSITY OF AUTHENTIC DELEGATION IN THE DIGITAL ERA	491
Ali TURHANI, Gjergji SHQAU, Marsela ÇENGELI	
THE USE OF ALTERNATIVE (DIGITAL) PAYMENT METHODS EFFECT ON MONEY DEMAND IN ALBANIA	502
Kristina PRISHKA, Jonida BIÇOKU	
DIGITAL TRANSFORMATION AND FISCALIZATION: EVIDENCE FROM FINANCIAL REPORTING PRACTICES IN ALBANIA	509
Valbona BALLKOÇI, Albina STËRMUGU, Suela HAJDARI	
CRYPTOCURRENCIES AND THEIR ACCOUNTING TREATMENT: CHALLENGES AND PERSPECTIVES	521
Albina STËRMUGU	
INTEGRATING SENSORY BRANDING AND MARKETING 3.0: EXPLORING THEIR JOINT INFLUENCE ON CUSTOMER LOYALTY THROUGH A CONCEPTUAL FRAMEWORK	534
Enslemvera ZAKE, Florinda ZEGULLAJ	
RECONCEPTUALIZING HUMAN RESOURCE MANAGEMENT FOR INDUSTRY 4.0: A STRATEGIC PERSPECTIVE ON DIGITAL TRANSFORMATION AND COMPETITIVE ADVANTAGE	541
Meri DUDUCI, Ali TURHANI, Gjergji SHQAU	
TOURISM WITH DIGNITY CONTRIBUTION (TKD): AN ALTERNATIVE TO POVERTY TOURISM	552
Mimoza KOTOLLAU	
THE USE OF ARTIFICIAL INTELLIGENCE (AI) BY LEGAL PROFESSIONALS: AN ETHICAL AND PRACTICAL APPROACH	560
Ansi KOTOLLAU, Megi FETAH	
INTERNATIONAL FUNDING INSTRUMENTS AND TOURISM-LED REGIONAL DEVELOPMENT: AN ANALYSIS OF CROSS-BORDER AND LOCAL DEVELOPMENT MODELS IN ALBANIA	570
Ardiana KASA	
DEMOGRAPHIC CHANGES AND THEIR IMPACT ON THE LABOR MARKET IN THE REPUBLIC OF ALBANIA AND THE EUROPEAN UNION, AS WELL AS THE ROLE OF EU DIRECTIVES AND THE INTERNAL LEGAL FRAMEWORK	579
Aida LLOZANA, Vesa LIÇO, Adriana KOTHERJA	
ALTERNATIVE DISPUTE RESOLUTION IN THE DIGITAL ERA: A NEW FRONTIER FOR CONSUMER PROTECTION	586
Angelo FRANCINI	
ALGORITHMIC AGE TARGETING IN ALBANIA: UNFAIR MARKETING PRACTICES AND THE GAP WITH EU CONSUMER LAW	593
Oriola (VRIONI) DOMI, Dorina BICA	

COMMUNICATIONS AND APPROACHES TO ATTRACT SUITABLE JOB CANDIDATES	604
Stoyan KIROV	
EU PAY TRANSPARENCY DIRECTIVE 2023/970 CHALLENGES AND COMPLEXITIES FOR IMPLEMENTATION IN BULGARIA	612
Vesela APOSTOLOVA	
DIGITAL TRANSFORMATION OF THE BANKING SECTOR: CHALLENGES AND PROSPECTS	617
Mariya PASKALEVA, Ani STOYKOVA	
TOURISM SEASONALITY AND ITS EFFECTS ON LOCAL ECONOMIC DEVELOPMENT IN ALBANIA	633
Davide DURMISHI, Enslemvera ZAKE	
TRANSPARENT FINANCIAL MANAGEMENT: LINKING TRUST, ACCOUNTABILITY, AND BETTER DECISIONS	644
Enslemvera ZAKE	
ADOPTION IN MARKETING STRATEGIES: NAVIGATING THE PRESENT AND SHAPING THE FUTURE BUSINESS LANDSCAPE ARTIFICIAL INTELLIGENCE (AI)	655
Besmir ALTERZIU	
THE IMPACT OF ARTIFICIAL INTELLIGENCE ON DIGITAL MARKETING IN THE EUROPEAN UNION AND ALBANIA. CONSUMER BEHAVIOUR, ECONOMIC EFFICIENCY, NEUROMARKETING AND REGULATORY CHALLENGES	673
Dorina BICA	
TOURISM AS A DRIVER OF ECONOMIC DEVELOPMENT IN ALBANIA: STATE POLICY, SUSTAINABILITY AND STRATEGIC CHALLENGES	685
Altin ALTERZIU	
IMPACT OF DIGITALIZATION IN MARKETING ON CONSUMER BEHAVIOR	693
Besmir LIKA	
THE INFLUENCE OF DIGITAL MARKETING ON CONSUMER ATTITUDES IN THE DECISION-MAKING PROCESS	698
Joana BALLA	
DIGITAL TRANSFORMATION IN BANKING: EVIDENCE AND STRATEGIC IMPLICATIONS FROM BULGARIA	703
Olga PETKOVA-MIHAYLOVA	
BALANCING INNOVATION AND REGULATION: THE EU AI ACT’S RISK-BASED APPROACH	716
Ines SALIU, Alda GASPARI	
INTERNATIONAL SPORTS ARBITRATION: THE EVOLUTION OF THE COURT OF ARBITRATION FOR SPORT AND THE FORMATION OF LEX SPORTIVA	722
Ines SALIU, Alda GASPARI	

AI FOR SUSTAINABLE URBAN DEVELOPMENT: A DATA-DRIVEN ANALYSIS OF URBAN MOBILITY, AIR QUALITY, AND PUBLIC TRANSPORT

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Abstract

This paper explores the contribution of artificial intelligence (AI) to sustainable urban development through a data-driven analysis encompassing urban mobility, air quality, population dynamics, and public transportation systems. The rapid pace of urbanization has intensified pressures on transport infrastructure and environmental quality, underscoring the necessity of integrated, analytically informed approaches. Despite the growing abundance of urban data, the effective incorporation of these datasets into decision-making processes remains constrained. The study utilizes a comprehensive, multi-source dataset that includes traffic indicators, air quality measurements, population density statistics, and characteristics of public transport systems. It employs a combined methodological framework integrating descriptive, comparative, and statistical analyses alongside machine learning techniques for predictive modelling. The results indicate that the relationship between traffic volume and air quality is weak and non-linear, with pollution levels shaped more by temporal and cumulative factors than by immediate traffic fluctuations. Population density emerges as a critical determinant of urban demand, whereas public transportation, while influential, proves insufficient in fully alleviating congestion within densely populated areas. Advanced modeling approaches—particularly time-aware methods such as XGBoost—substantially enhance predictive accuracy, thereby underscoring the significance of temporal dependencies in urban environmental assessments. Overall, the study demonstrates that the fusion of multi-source urban data with AI methodologies yields deeper insights into the complexities of urban systems and enables more reliable forecasting. These findings highlight the pivotal role of data-driven, temporally sensitive strategies in optimizing urban planning, improving transport efficiency, and fostering sustainable urban development.

Keywords: Artificial Intelligence, Data-Driven Analysis, Urban Mobility, Air Quality, Sustainable Development

Introduction

The accelerating phenomenon of urbanization continues to transform cities across the globe, intensifying demands on transportation networks, environmental sustainability, and urban infrastructure (OECD, 2024; World Bank, 2023). Parallel to the expansion of urban populations, challenges such as traffic congestion, air pollution, and inefficiencies in mobility systems have become increasingly pronounced, posing substantial obstacles to the advancement of sustainable urban development (UN-Habitat, 2022). These issues not only diminish the quality of life within urban environments but also constrain cities’ potential to attain enduring economic and environmental sustainability. Within this context, artificial intelligence (AI) has emerged as a pivotal mechanism for enhancing urban governance through data-driven analytics, predictive modeling, and intelligent decision-support systems (Lloret et al., 2025; Martins et al., 2024; Zhang et al., 2026).

Existing scholarly research has underscored the potential of AI to advance smart city initiatives, particularly in domains such as traffic forecasting, environmental monitoring, and transport system optimization (Ahmed et al., 2024; Chen & Kumar, 2024). Machine learning methodologies have been extensively employed to analyze traffic flows, predict congestion patterns, and monitor air quality in real time (Silva & Oliveira, 2024; García et al., 2023). Recent studies further highlight the importance of advanced AI models and real-time data integration in enhancing urban system performance and achieving sustainable outcomes (Kumar et al., 2026). Nonetheless, despite these developments, the integration of diverse urban data sources—encompassing traffic indicators, environmental metrics, demographic distributions, and public transport parameters—remains constrained (Fernandes et al., 2024).

Addressing this research gap, the present study explores the application of artificial intelligence in examining urban mobility and environmental conditions through a multi-source data framework. The analysis utilizes integrated datasets from Tirana, incorporating traffic indicators (travel time, congestion levels, and traffic ratios), air quality measurements (AQI), population density indices, and public transport variables such as service frequency and estimated demand. Through the synthesis of these heterogeneous datasets, the study seeks to generate a comprehensive understanding of the interrelationships among mobility, environmental quality, and urban demand. The methodological framework combines descriptive, comparative, and statistical analyses with advanced machine learning techniques, including regression modeling, Random Forest algorithms, and time-aware predictive models. This integrative approach facilitates the identification of both linear and non-linear associations, as well as temporal dependencies, that shape the dynamics of urban systems.

This study makes several notable contributions to the existing body of literature. First, it introduces an integrated, data-driven framework that synthesizes multiple urban datasets to facilitate the analysis of mobility patterns and environmental conditions. Second, it presents empirical evidence indicating the existence of weak and non-linear relationships between traffic intensity and air quality. Third, it underscores the significance of temporal dynamics in enhancing predictive accuracy. Finally, the findings emphasize the substantial influence of population density on shaping urban demand, while demonstrating that public transport systems alone are insufficient to fully alleviate congestion in densely populated areas. In this

context, the integration of artificial intelligence with multi-source urban data represents a promising approach for addressing the increasing complexity of modern cities.

Methodology

This investigation employs a data-driven analytical framework to explore the interrelationships among urban mobility, air quality, demographic distribution, and public transportation infrastructure. The methodological design integrates and analyzes diverse urban datasets, thereby facilitating a comprehensive assessment of urban dynamics and sustainability challenges.

The study utilizes four principal datasets. The first pertains to traffic data, which capture various mobility indicators—including travel distance, duration under normal and congested conditions, traffic ratios, and congestion severity across urban routes. The second dataset consists of air quality measurements, represented by the Air Quality Index (AQI) recorded at multiple time intervals, thus enabling the examination of temporal variations in environmental conditions. The third dataset comprises population information to depict demographic distribution and density across distinct urban zones. Lastly, the fourth dataset concerns public transportation, encompassing details such as bus routes, service frequency, and estimated daily passenger volumes.

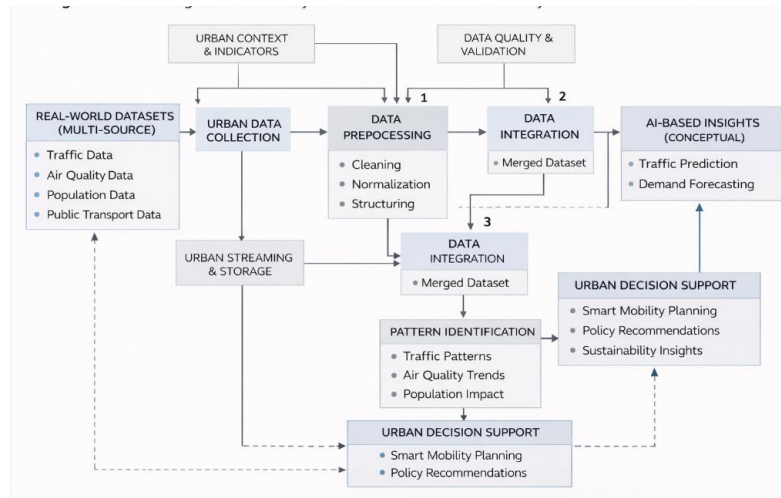
Table 1. Comparison of Urban Data Sources and Analytical Variables

Characteristics	Traffic Data	Air Quality Data	Population Data	Public Transport Data
Type of data	Mobility indicators	Environmental indicators	Demographic indicators	Transport system indicators
Main variables	Distance, travel time, congestion level	AQI, pollution level	Population size, density	Routes, frequency, demand
Data structure	Structured (numerical)	Structured (time-series)	Aggregated data	Structured (categorical + numerical)
Temporal aspect	Real-time / periodic	Time-series	Static / yearly	Daily / scheduled
Spatial coverage	Urban routes	Urban zones	Administrative areas	Transport corridors
Analytical use	Traffic analysis and congestion detection	Environmental impact assessment	Density and demand estimation	Transport efficiency evaluation
Role in analysis	Identifies mobility patterns	Evaluates environmental conditions	Explains demand pressure	Supports mobility optimization

Source: Own Research

A comparative summary of these datasets and their respective analytical functions is provided in Table 1. The methodological framework comprises three principal phases: data preprocessing, data integration, and analytical evaluation. During the preprocessing phase, the datasets undergo cleaning, structuring, and standardization to maintain consistency across all variables. In the integration phase, the datasets are consolidated into a cohesive analytical framework, thereby facilitating cross-variable analysis and comparative assessment.

Figure 1. Data Integration and Analysis Framework for Urban Mobility and Environmental Assessment



Source: Own Research

During the analytical phase, both descriptive and comparative methods are employed to identify patterns and relationships among traffic congestion, air quality, population density, and public transport usage.

All statistical analyses and modeling procedures are executed using the R programming environment. The analytical workflow encompasses descriptive statistics, correlation analysis, and advanced modeling techniques. Linear regression models are utilized to assess baseline relationships, while machine learning algorithms—specifically Random Forest and Gradient Boosting (XGBoost)—are implemented to capture complex patterns and enhance predictive accuracy. In addition, time-series analysis is integrated through the inclusion of lagged variables, enabling the study to account for temporal dependencies and delayed effects in air quality dynamics. Non-linear modeling approaches, such as polynomial regression and Generalized Additive Models (GAM), are applied to uncover intricate relationships that cannot be represented through linear models.

Model performance is assessed using established metrics, including the coefficient of determination (R^2), Root Mean Square Error (RMSE), and accuracy. Furthermore, clustering and anomaly detection techniques are employed to reveal spatial patterns and irregularities across urban routes, thereby offering deeper insights into urban dynamics.

Collectively, this methodological framework presents a comprehensive and rigorous approach to analyzing complex urban systems. Additionally, the integration of statistical and machine learning approaches allows for a more comprehensive evaluation of both linear and non-linear relationships within the data. This combined methodology enhances the robustness of the analysis and ensures that complex urban dynamics are captured more effectively than through single-method approaches. By integrating multi-source data with advanced analytical and artificial intelligence techniques, the study advances the understanding of urban mobility and environmental interactions, while facilitating data-driven strategies for sustainable urban development.

Results and Discussion

The empirical evaluation of urban traffic and air quality reveals several noteworthy patterns pertaining to temporal dynamics, spatial variability, and model-based interactions. Overall, the results demonstrate that the relationship between traffic intensity and air quality is weak, complex, and distinctly non-linear.

From a temporal standpoint, traffic intensity exhibits a well-defined diurnal pattern. The lowest levels of vehicular movement occur during the night (01:00–05:00), reflecting minimal urban activity, whereas peak congestion is observed in the late morning, particularly between 10:00 and 11:00. Despite these fluctuations, air quality, as reflected by the Air Quality Index (AQI), remains comparatively stable throughout the day. This pattern suggests that air pollution is influenced by cumulative processes rather than immediate traffic fluctuations.

Spatial analysis indicates substantial heterogeneity across urban routes. This is further supported by mixed-effects and panel models, which indicate that location-specific factors dominate the relationship with air quality. Rruga e Elbasanit records the highest traffic intensity, whereas Medreseja experiences the least congestion. Nonetheless, the highest AQI values are found in Don Bosko, suggesting that elevated traffic volumes do not necessarily correspond to higher pollution levels. Similarly, observed differences in AQI across population density categories are limited. This suggests that population density alone is not a dominant determinant of air quality. This highlights the importance of spatial heterogeneity in urban systems.

Statistical examination further reinforces the complexity of these interactions. Correlation analyses reveal exceedingly weak linear associations between traffic volume, population density, and AQI ($r \approx 0$), while regression results demonstrate limited explanatory capacity ($R^2 \approx 0.014$). Despite statistical significance, the model explains only a small portion of AQI variability, indicating limited explanatory power. These outcomes suggest that linear models are inadequate for capturing the dynamics of air quality, despite their statistical significance. The near-zero correlation coefficients further confirm the absence of strong linear relationships between the key variables. The absence of multicollinearity confirms the integrity and robustness of the analytical framework. This ensures the stability and reliability of the estimated models.

Table 2. Summary of Empirical Findings

Analysis Type	Key Result	Interpretation
Correlation	$r \approx 0$ (very weak)	No strong linear relationship
Linear Regression	$R^2 \approx 0.014$ (low)	Limited explanatory power
Density Analysis	Small differences across groups	Weak impact of density
Route Analysis	High variation across locations	Spatial heterogeneity
Time Analysis	Traffic varies, AQI stable	Delayed/cumulative effects
Polynomial Model	Significant quadratic term	Non-linear relationship
GAM Model	Significant smooth effects	Complex dynamics
Random Forest	Population most important variable	Demographic influence stronger
Model Validation	RMSE ≈ 8.11	Acceptable predictive performance

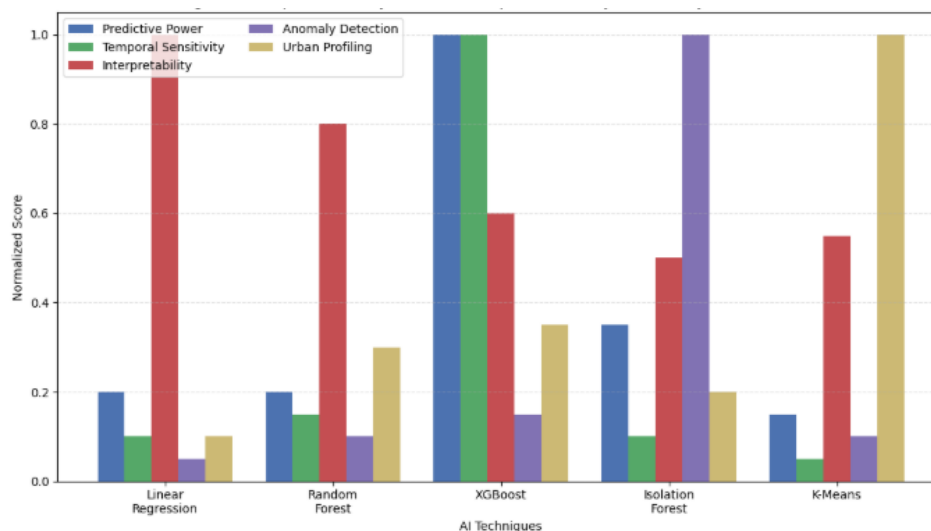
Source: Own Research

Advanced modeling techniques yield deeper insights into the underlying dynamics of the system. Polynomial regression and Generalized Additive Models (GAM) confirm the existence

of non-linear relationships between traffic and air quality, while mixed-effects models reveal route-specific differences. This further reinforces the inherently non-linear nature of the relationship between traffic and air quality. Moreover, the Random Forest analysis identifies population as the most influential factor affecting the Air Quality Index (AQI), followed by public transport usage, with traffic playing a comparatively less significant role. Feature importance analysis further indicates that population is the dominant predictor, while traffic-related variables contribute relatively less to AQI variation. Model validation results ($RMSE \approx 8.11$) demonstrate acceptable predictive accuracy despite the presence of weak linear relationships. In summary, these findings underscore the complex and multifaceted nature of urban environmental systems, wherein air quality is shaped by numerous interacting variables rather than traffic alone. Consequently, effective urban policies should adopt a comprehensive, spatially sensitive framework. However, baseline machine learning models such as Linear Regression and Random Forest exhibit low explanatory power ($R^2 \approx 0.03$), reinforcing the limitations of static feature-based approaches.

Furthermore, the results highlight the importance of incorporating both spatial and temporal dimensions in urban analysis, as static models fail to capture the evolving nature of air quality dynamics. The integration of multiple modeling approaches provides a more robust understanding of the system, enabling the identification of hidden patterns that are not observable through traditional methods alone. Moreover, the results demonstrate that effective urban policy-making requires a holistic understanding of the interactions between mobility, environmental conditions, and demographic factors. The integration of these dimensions enables more targeted and adaptive strategies for managing congestion and improving environmental outcomes. These findings also suggest that traditional single-factor analyses are insufficient for addressing the complexity of modern urban systems. Instead, integrated analytical approaches are required to capture the interactions between mobility, environmental conditions, and demographic dynamics. The results further highlight the importance of combining statistical and machine learning techniques to improve both interpretability and predictive performance. This approach enables a more comprehensive and reliable framework for supporting urban policy and decision-making.

Figure 2. Comparative Analysis of AI Techniques Across Key Urban Analytics Dimensions



Source: Own Research

Figure 2 presents a comparative assessment of various artificial intelligence techniques across multiple dimensions, including predictive accuracy, temporal sensitivity, interpretability, anomaly detection, and urban profiling. The findings indicate that XGBoost achieves the highest level of predictive accuracy, whereas Isolation Forest and clustering methods play significant roles in identifying anomalies and detecting urban patterns. This comparison highlights that advanced models outperform traditional approaches in capturing complex urban dynamics. Additionally, the results demonstrate that incorporating multiple AI techniques provides a more balanced and comprehensive understanding of urban systems.

The application of artificial intelligence methodologies facilitates a more sophisticated analysis of urban dynamics. Preliminary models, including Linear Regression and Random Forest, exhibit minimal predictive capability ($R^2 \approx 0.03$), indicating that static variables alone cannot adequately account for AQI variability. In contrast, the implementation of a time-aware XGBoost model incorporating lag features substantially enhances predictive performance ($R^2 = 0.6554$). This outcome emphasizes the critical role of temporal dependencies and confirms that air quality is influenced by both delayed and cumulative effects.

This indicates that AQI is influenced by its past values, reflecting a clear temporal persistence effect in urban pollution dynamics. Additionally, these findings demonstrate that dynamic, time-aware models are essential for accurately capturing the complexity of urban environmental systems.

Table 3. Model Performance Comparison for AQI Prediction

Model	MAE	RMSE	R^2
Linear Regression	6.08	8.11	0.03
Random Forest	6.09	8.12	0.03
XGBoost (lag)	5.10	7.19	0.65

Source: Own Research

The congestion classification model achieves a high accuracy rate of 94%, primarily influenced by variables related to traffic conditions. This result suggests that congestion patterns are strongly driven by observable traffic conditions. Furthermore, the anomaly detection process identifies more than 10,000 instances in which the Air Quality Index (AQI) diverges from predicted traffic-based patterns, indicating the potential impact of external environmental factors. These anomalies indicate the presence of external factors influencing air quality beyond traffic-related variables. The clustering analysis reveals three distinct profiles of urban mobility; however, AQI values remain comparatively stable across these clusters, underscoring the intricate nature of pollution dynamics. This finding confirms that air quality remains relatively stable across different urban profiles. In several cases, relatively low traffic levels are associated with moderate or high AQI values, further supporting the influence of external environmental factors.

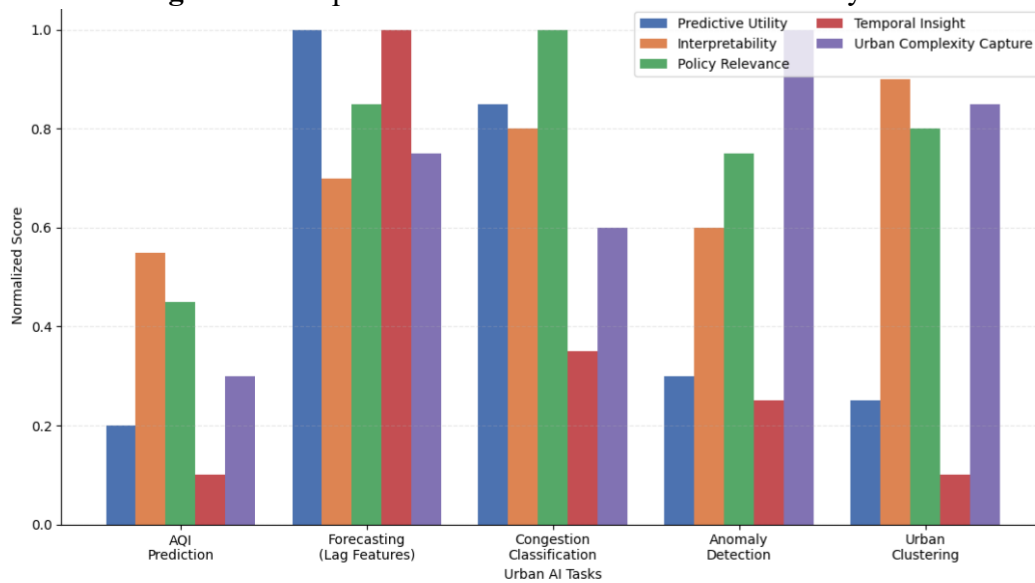
These results highlight the limitation of relying solely on traffic indicators for environmental assessment. They also reinforce the need to incorporate additional contextual and environmental variables in order to achieve more accurate and comprehensive urban analysis.

Figure 3 further highlights the role of different AI tasks, showing that time-aware forecasting provides the highest predictive value, while anomaly detection and clustering offer important insights for policy-making and urban management. Additionally, forecasting models capture

temporal dependencies in air quality dynamics, whereas anomaly detection reveals deviations from expected patterns, indicating the presence of external influencing factors. Clustering techniques further support the identification of distinct urban profiles, contributing to a more comprehensive understanding of spatial and structural variations in urban systems. Additionally, these results emphasize the complementary role of different AI tasks in capturing temporal, structural, and anomalous patterns within complex urban systems.

Moreover, this comparative analysis demonstrates that combining multiple AI approaches leads to a more holistic interpretation of urban dynamics. Such integration enhances both predictive performance and interpretability, supporting more effective and data-driven urban decision-making.

Figure 3. Comparative Role of AI Tasks in Urban Analytics



Source: Own Research

Table 4. Comparative Analysis of Urban Data Sources and Analytical Role

Dataset	Key Variables	Data Type	Temporal Dimension	Spatial Coverage	Analytical Purpose	Role in Study
Traffic Data	Distance, travel time, congestion ratio, traffic status	Numerical (structured)	Real-time / periodic	Urban routes in Tirana	Traffic flow analysis and congestion detection	Identifies mobility patterns and congestion hotspots
Air Quality Data	AQI, air quality category, pollution level	Time-series (numerical + categorical)	Time-series (hourly updates)	Urban routes	Environmental monitoring and pollution assessment	Evaluates environmental impact of traffic and urban activity
Population Data	Population size, density level	Aggregated (numerical + categorical)	Static (yearly)	Administrative zones	Demand estimation and urban pressure analysis	Explains variation in traffic and pollution across areas

Public Transport Data	Bus routes, frequency, daily users	Mixed (categorical + numerical)	Daily / scheduled	Transport corridors	Transport efficiency and demand analysis	Assesses role of public transport in reducing congestion

Source: Own Research

Table 4 provides a comparative overview of the primary urban datasets used in this study, highlighting their structure and role. Traffic data capture mobility patterns, air quality data assess environmental conditions, population data explain spatial variation, and public transport data evaluate system efficiency. Their integration enables cross-dimensional analysis, providing deeper insights into interactions between mobility, environment, and urban demand, and enhancing analytical robustness. Additionally, this integrated approach supports a more comprehensive evaluation of complex urban systems by linking multiple data dimensions.

The combined analysis further confirms that linear relationships between key variables remain weak, as indicated by low correlation and regression results, while machine learning models provide improved predictive capability. In particular, the incorporation of temporal features significantly enhances model performance, demonstrating that air quality dynamics are strongly influenced by delayed and cumulative effects. These findings highlight the importance of integrating both statistical and AI-based approaches to better capture the complexity of urban systems.

Furthermore, the results indicate that spatial and demographic factors play a significant role in shaping urban dynamics, often outweighing the direct impact of traffic variables. The presence of anomalies and stable AQI patterns across clusters further supports the influence of external environmental conditions. Overall, these findings emphasize the need for multi-dimensional and adaptive analytical frameworks in urban research. Additionally, these insights highlight the importance of integrating spatial and temporal data to improve the accuracy and relevance of urban policy interventions.

Table 5. Comparative Assessment of Urban Factors in Sustainable City Analysis

Factor	Impact on Traffic	Impact on Air Quality	Scalability	Data Availability	Analytical Value	Notes / Interpretation
Traffic Intensity	Very High – directly increases congestion levels	Moderate – contributes to emissions but not always dominant	High – can be monitored in real-time	High – continuous data collection	Very High – key variable in urban mobility analysis	Strongest indicator of congestion patterns
Air Quality (AQI)	Low – not a direct driver of traffic	Very High – reflects environmental conditions	High – scalable via sensors	Medium – depends on monitoring infrastructure	High – critical for sustainability assessment	Influenced by multiple factors beyond traffic
Population Density	High – increases demand for mobility	Moderate – indirectly affects pollution levels	Very High – stable and widely available	High – census and administrative data	High – explains spatial variation	Key driver of urban pressure and demand
Public Transport Usage	Moderate – helps reduce traffic but not fully	Low – indirect environmental effect	High – scalable across urban networks	High – operational data available	Medium to High – supports mobility optimization	Does not fully offset congestion in high-demand areas

Traffic Ratio (Congestion Index)	Very High – measures real congestion level	Low – indirect link to AQI	High – derived from traffic data	High – calculated from existing metrics	Very High – essential for modeling and forecasting	Best indicator for predictive models

Source: Own Research

Table 5 presents a comparative assessment of principal urban variables and their respective influences on traffic dynamics, air quality, and overall sustainability. The findings demonstrate that traffic intensity and congestion measures constitute the most significant determinants of mobility patterns, while air quality serves as an indicator of broader environmental conditions. Population density is identified as a pivotal factor shaping demand, whereas the availability of public transportation enhances mobility yet fails to fully alleviate congestion in highly populated areas.

Overall, the results underscore the intricate nature of urban systems, which are defined by non-linear and temporally dependent interactions among traffic patterns, air quality, and demographic factors. The findings indicate that conventional linear models are inadequate, whereas temporally informed and machine learning-based approaches substantially enhance predictive accuracy. Collectively, these outcomes highlight the critical role of data-driven methodologies in facilitating more effective and sustainable urban planning.

Furthermore, the results emphasize the importance of integrating multiple data sources to capture the full complexity of urban dynamics. This integrated perspective supports more informed and adaptive decision-making processes in the context of sustainable and resilient city development.

Conclusions

This study presents an extensive, data-driven examination of urban mobility, air quality, population dynamics, and public transportation systems, emphasizing the intricate and non-linear interrelations among these domains. The results indicate that vehicular traffic alone cannot adequately account for variations in air quality, as population density, spatial heterogeneity, and temporal dependencies exert a more pronounced influence. In particular, the findings demonstrate that air quality dynamics are shaped by cumulative and delayed effects rather than immediate traffic fluctuations.

The implementation of advanced analytical and machine learning methodologies, particularly time-sensitive models such as XGBoost with lag features, substantially enhances predictive accuracy and yields a deeper understanding of urban processes. The significant improvement in model performance highlights the critical role of temporal information in capturing air quality dynamics, while baseline models confirm the limitations of static, linear approaches. Furthermore, the analysis reveals that urban systems are influenced by multiple interacting factors, including demographic distribution, route-specific characteristics, and external environmental conditions. The presence of anomalies and the consistency of AQI across different urban clusters further support the conclusion that air quality cannot be explained solely by mobility patterns.

Collectively, the findings affirm that the integration of multi-source urban data with artificial intelligence-based approaches is imperative for optimizing urban planning, improving transportation efficiency, and fostering more sustainable and resilient urban development.

These results highlight the importance of adopting data-driven, time-aware, and spatially sensitive strategies to effectively address the complexity of modern urban environments. In addition, the study provides a foundation for future research focused on incorporating real-time data and expanding the range of environmental and socio-economic variables. Such extensions would further enhance the accuracy and applicability of AI-driven urban analysis.

References

- Ahmed, S., Rahman, M., & Lee, J. (2024). Artificial intelligence applications in smart urban mobility systems. *Sustainable Cities and Society*. <https://doi.org/10.1016/j.scs.2024.104700>
- Chen, Y., & Kumar, A. (2024). Machine learning approaches for traffic prediction and congestion management. *Transportation Research Part C: Emerging Technologies*. <https://doi.org/10.1016/j.trc.2024.104200>
- Fernandes, R., Silva, P., & Costa, H. (2024). Integrating multi-source urban data for smart city decision-making. *Sustainable Cities and Society*. <https://doi.org/10.1016/j.scs.2024.104600>
- García, M., López, D., & Pérez, J. (2023). Air quality monitoring using machine learning techniques in urban environments. *Atmospheric Environment*. <https://doi.org/10.1016/j.atmosenv.2023.119000>
- Lloret, Á., Parra, L., & García, M. (2025). A data-driven framework for digital transformation in urban environments. *Sensors*. <https://doi.org/10.3390/s25165179>
- Martins, F., Oliveira, T., & Pereira, L. (2024). Artificial intelligence adoption in smart cities: Trends and challenges. *Technological Forecasting and Social Change*. <https://doi.org/10.1016/j.techfore.2024.122123>
- OECD. (2024). *Artificial intelligence in public service design and delivery*. <https://www.oecd.org/digital/artificial-intelligence/>
- Silva, A., & Oliveira, R. (2024). Environmental monitoring and prediction using AI-based models. *Environmental Modelling & Software*. <https://doi.org/10.1016/j.envsoft.2024.105000>
- UN-Habitat. (2022). *World cities report 2022: Envisaging the future of cities*. <https://unhabitat.org/topic/urbanization>
- World Bank. (2023). *Urban development overview*. <https://www.worldbank.org/en/topic/urbandevelopment>
- Zhang, Y., Li, X., & Chen, H. (2026). Artificial intelligence for sustainable urban mobility: A data-driven approach. *Sustainable Cities and Society*.
- Kumar, R., Singh, P., & Zhao, L. (2026). Real-time traffic prediction and air quality monitoring using advanced machine learning models. *Transportation Research Part C: Emerging Technologies*.

DEMOGRAPHIC TRANSITION, HUMAN CAPITAL AND REGIONAL SUSTAINABILITY: EVIDENCE FROM THE ELBASAN DISTRICT

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Abstract

This paper examines recent demographic transitions and human capital characteristics in the Elbasan district of Albania, using detailed evidence from the population and housing census 2023 and complementary administrative data. The study addresses a gap in the literature by providing a sub-national analysis that links demographic change with labor market capacity and sustainable regional development. The paper analyses population decline, internal migration, ageing dynamics, dependency ratios, and educational attainment across administrative units, assessing their implications for labor supply and long-term economic sustainability. The methodology relies on descriptive and comparative statistical analysis of official census indicators at municipal and intra-municipal level. The results show that Elbasan has experienced a substantial population decline since 2011, driven by negative natural increase and net out-migration. Although a relatively large share of the population remains of working age, the rapid rise in old-age dependency and pronounced territorial disparities pose structural challenges. Educational outcomes reveal low overall attainment levels, spatial concentration of vocational education, and strong female dominance in tertiary education. These findings highlight the need for territorially targeted labour market, education, and social policies to support sustainable growth in non-metropolitan regions of Albania.

Keywords: demographic transition; human capital; ageing population; labour market sustainability; regional development

Introduction

Demographic change has become a central concern for sustainable economic and social development across Europe, particularly in countries experiencing rapid population decline and migration. Population ageing is a dominant global demographic trend with significant implications for economic growth. Empirical evidence shows that ageing populations are associated with a slowdown in income per capita growth, estimated at around 0.6 percentage points annually in both OECD countries and U.S. states (Aksoy et al., 2019; Maestas et al., 2023). Expanding this analysis globally, Kotschy and Bloom (2023) confirm the negative impact of ageing on macroeconomic performance but highlight those traditional measures may overestimate this effect. Demographic transition theory explains the shift from high to low fertility and mortality rates, leading to population ageing and changes in labor supply. This

process is closely linked to socio-economic development, urbanization, and increased educational attainment.

Human capital theory emphasizes the role of education and skills in enhancing productivity and economic growth. As fertility declines, families tend to invest more in education, improving the quality of human capital.

Recent studies on regional sustainability stress that demographic and human capital dynamics differ across regions, particularly in the Western Balkans, where migration, ageing, and population decline create structural challenges. The Western Balkans faces a labor market paradox, where labor shortages coexist with high unemployment and low labor force participation, particularly among women, youth, and older populations (World Bank, 2025). At the same time, the working-age population is declining and is projected to shrink significantly by 2050, worsening labor supply constraints. If current trends persist, the region could face a shortage of around 190,000 workers in the coming years (World Bank, 2025).

Albania represents a salient case, with sustained emigration, declining fertility, and accelerated population ageing reshaping both national and local development trajectories. Albania faces multiple human capital challenges, including poverty, social exclusion, an ageing and declining population due to migration and low fertility, and a poorly skilled labor force. (UNICEF, 2026). Within this broader context, the Elbasan Region constitutes an important case study. The Municipality of Elbasan is located in the central part of Albania and holds a highly strategic position, as it is connected to major national transport routes. It is situated approximately 62.5 km from Mother Teresa International Airport, 83 km from the Port of Durrës, 65 km from the Qafë Thanë border crossing point, and 150 km from the Kapshticë border crossing point. Historically recognized as an industrial, educational, and administrative center, Elbasan has faced significant demographic contraction over the past decade, while still concentrating a substantial share of regional human capital. This coexistence of demographic decline and educational potential raises critical questions regarding labor supply, productivity, and long-term sustainability.

The objective of this paper is to analyze recent demographic and educational developments in the Elbasan Region and to assess their implications for sustainable regional development. By combining population structure indicators with data on education and dependency ratios, the paper contributes to the conference themes of sustainable growth, policy innovation, and the interaction between demographic dynamics and market structures.

Methodology

This study employs a quantitative, descriptive, and comparative approach based on secondary data. The main source is the Population and Housing Census 2023 conducted by INSTAT, complemented by administrative data from the Municipality of Elbasan and the Ministry of Education and Sports.

The analysis focuses on key demographic indicators (population change, age structure, migration, gender ratios), dependency ratios, and human capital indicators (educational attainment, vocational education, and gender differences). Data are examined at both municipal and intra-municipal levels (administrative units), allowing for the identification of spatial disparities and structural imbalances within the region.

A comparative analysis is conducted by benchmarking Elbasan against the country and national levels. The methodological approach is exploratory and policy-oriented, aiming to highlight structural trends and development challenges rather than to establish causal relationships.

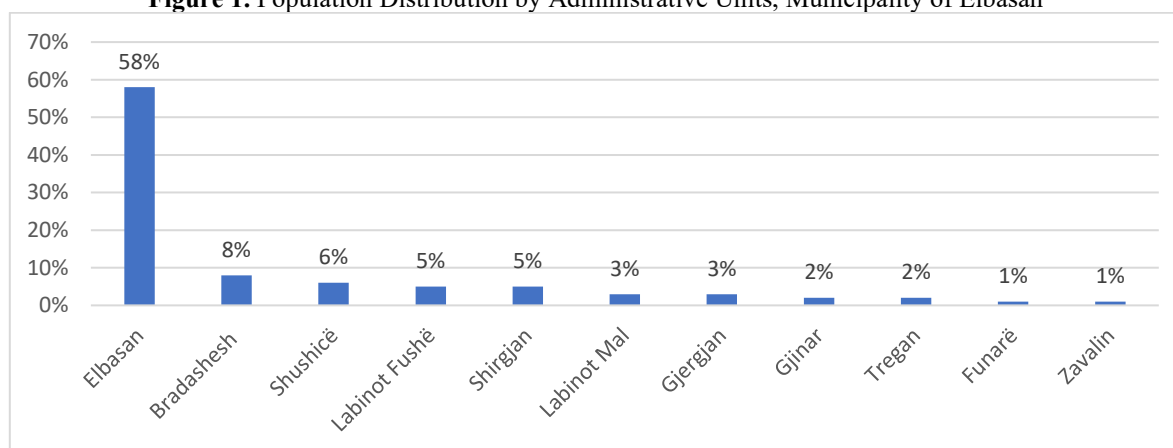
Results and Discussion

The Municipality of Elbasan is composed of 13 administrative units: Elbasan, Bradashesh, Papër, Labinot-Fushë, Labinot-Mal, Gjergjan, Gjinar, Gracen, Funar, Shushicë, Shirgjan, Tregan, and Zavalinë. These units include the city of Elbasan and a total of 116 villages. According to the 2023 Population Census, the Municipality of Elbasan has a population of 115,101 inhabitants, whereas the civil registry records 217,169 residents. This indicates a significant discrepancy between official census data and civil registry figures. The municipality has experienced a declining population trend over the years. Based on the 2011 Census, the population was recorded at 147,714 inhabitants, highlighting a notable decrease (22%) by 2023.

Referring to the 2023 Census, the Municipality of Elbasan is the largest municipality in Elbasan district, accounting for 49.5% of the district’s total population. The remaining population is distributed among six other municipalities as follows: Peqin (7.1%), Cërrik (10.8%), Gramsh (7.1%), Belsh (7.4%), Përrenjas (8.1%), and Librazhd (10%).

Within the municipality, the administrative unit of Elbasan is the largest, comprising 58% of the total municipal population, while the remaining population is distributed across the other 12 administrative units (see Figure 1).

Figure 1. Population Distribution by Administrative Units, Municipality of Elbasan



Source: INSTAT, Population and Housing Census 2023, own calculations

With regard to gender, the population is almost evenly distributed, with a ratio of 50% males and 50% females. This distribution is also observed at the Elbasan district level, reflecting a balanced gender structure across the entire territory.

In most administrative units, the working-age population (15–64 years) is predominantly composed of males (see Figure 2). However, there are some exceptions: in the administrative units of Elbasan, Gjergjan, and Tregan, females constitute the majority, accounting for 51% of the population in this age group. This phenomenon may be explained by the relatively high level of male migration from these areas, as men often relocate in search of better employment opportunities.

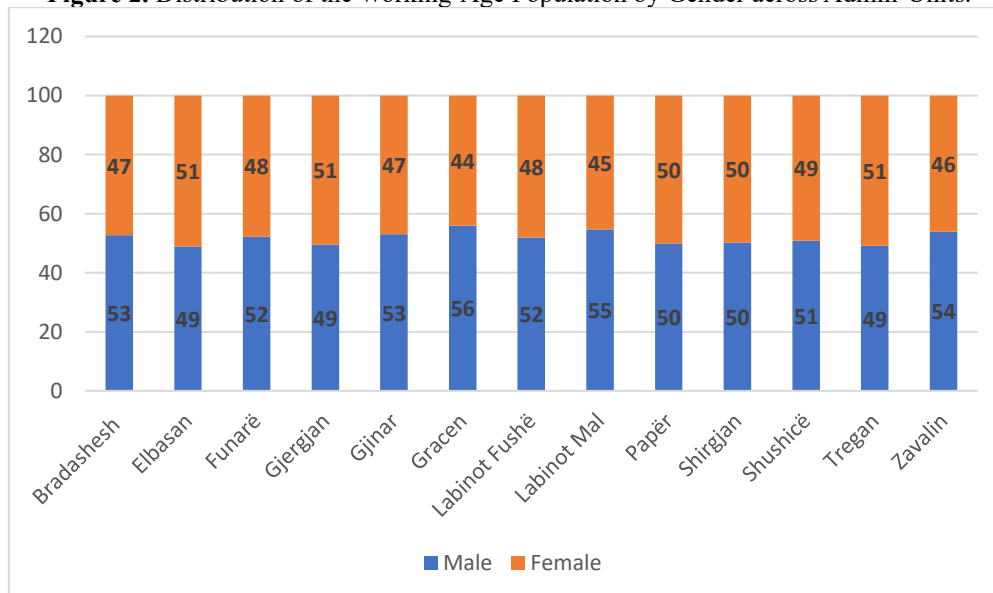
According to the 2023 Census, the gender ratio (males per 100 females) in the Municipality of Elbasan indicates a slight predominance of females, with 99 males for every 100 females. This ratio is higher than the national average of 98.2. In the Municipality of Cërrik, the ratio is even lower, with 98 males per 100 females, representing the lowest value in Elbasan district.

Meanwhile, in the other municipalities of Elbasan County, the gender ratio is in favor of males:

- Gramsh – 104 males per 100 females

- Librazhd – 103 males per 100 females
- Peqin – 107 males per 100 females
- Përrenjas – 103 males per 100 females

Figure 2. Distribution of the Working-Age Population by Gender across Admin-Units.



Source: INSTAT, Population and Housing Census 2023, own calculations

Compared to Elbasan District as a whole, which shows a balanced distribution of 100 males per 100 females, the Municipality of Elbasan also exhibits an almost balanced gender ratio. Another important demographic indicator is the age structure of the population and its median age. According to the 2023 Census data for the Municipality of Elbasan:

- 65.4% of the population belongs to the working-age group (15–64 years)
- 15.5% are children (0–14 years)
- 19.1% are aged 65 and over

Across all administrative units of the Municipality of Elbasan, the share of the working-age population (15–64 years) ranges from 62% to 69.8%. The proportion of the population aged 65 and over varies between 12.5% and 27%, depending on the administrative unit. Meanwhile, the population aged 0–14 years accounts for between 11% and 20.6% of the population in these units. In 9 of the administrative units of the Municipality of Elbasan, the proportion of the 0–14 age group is lower than that of the population aged 65 and over (see Figure 3).

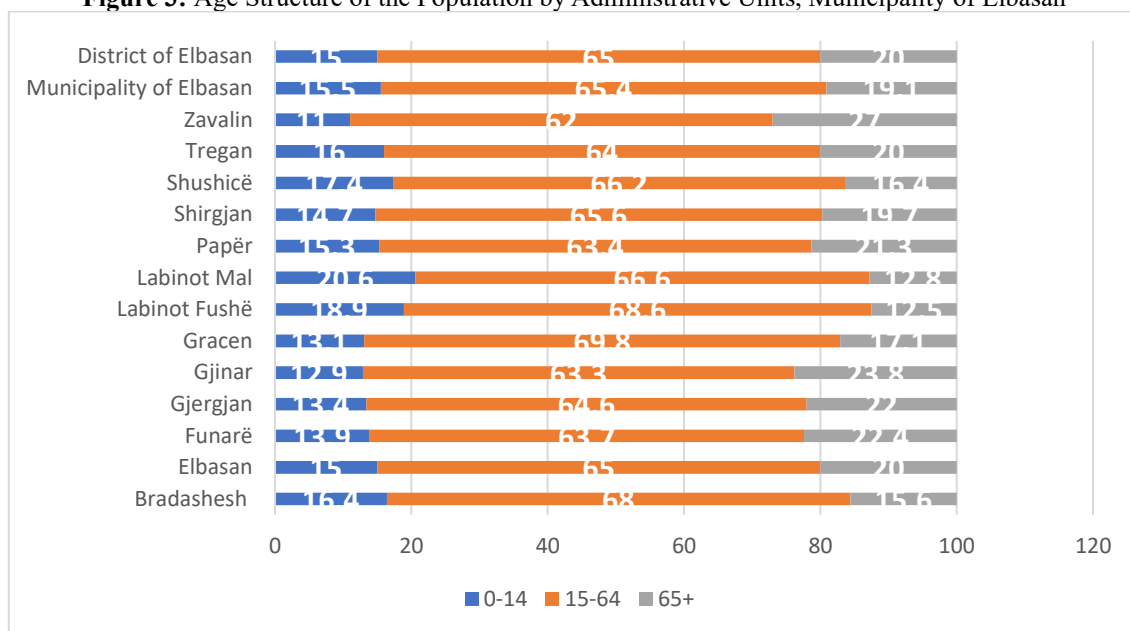
These figures indicate a heterogeneous demographic structure across the administrative units, reflecting varying levels of fertility and population ageing. The analysis of the age structure in the Municipality of Elbasan reveals a clear trend of population ageing in most administrative units. This is primarily driven by high levels of out-migration from these areas, as well as negative natural population growth, both of which contribute to a decline in the number of young people.

However, based on the age structure, the share of the working-age population (15–64 years) in 7 of the administrative units of the Municipality of Elbasan is at least equal to the average of Elbasan District (65%). These findings suggest that both the Municipality of Elbasan and the district as a whole still retain a considerable working-age population, which has the potential to be economically active and contribute to the region’s development.

The age structure of the population indicates an increase in the proportion of elderly individuals aged 65 and over, alongside a decline in younger age groups. In the Municipality of Elbasan, 19.1% of the population is aged 65 or older, a figure very close to the district average (20%) and nearly identical to the national level (19.7%). According to the 2011 Census, this proportion was 11.3%.

This demographic trend signals that the population is entering a stage of ageing. The rising number of elderly people necessitates increased investments to improve the socio-economic conditions and overall well-being of this age group.

Figure 3: Age Structure of the Population by Administrative Units, Municipality of Elbasan



Source: INSTAT, Population and Housing Census 2023, own calculations

The analysis of dependency indicators is crucial for assessing the potential human resources that can participate in the labour market and, consequently, influence the improvement of the economic performance of the study area. The overall dependency ratio reflects the economic burden on the working-age population. The lower this indicator, the greater the potential for economic growth. Conversely, a high youth dependency ratio signals potential for an increase in the future active population, while a rising elderly dependency ratio calls for better planning of investments and social policies to support this demographic group.

In the Municipality of Elbasan, the overall dependency ratio is 52.87, a value lower than both the county level (53.7) and the national level (54.4%).

The youth dependency ratio is 23.62, nearly identical to the county average (23.5) and the national level (24).

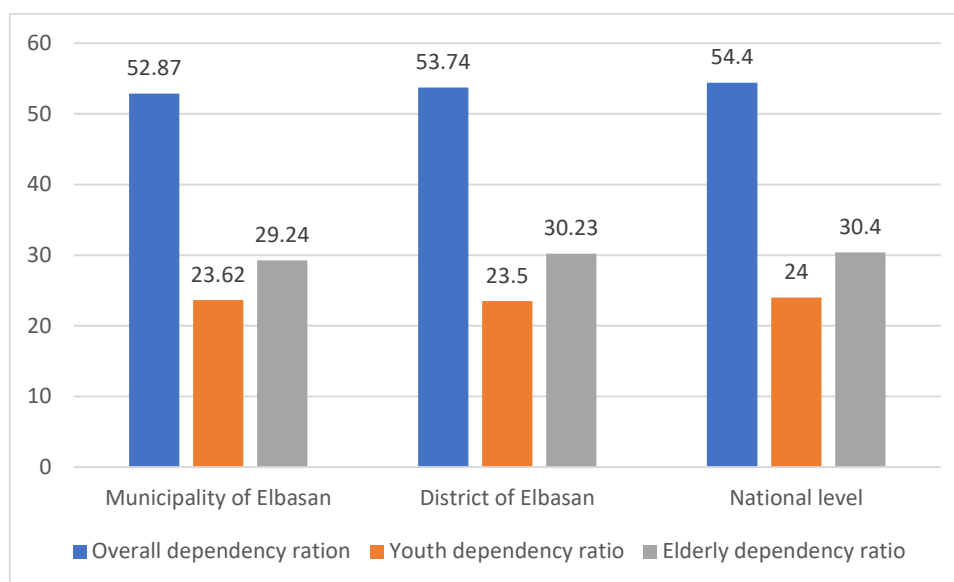
The elderly dependency ratio is 29.24, lower than the county average (30.2) and very close to the national level (30.4) (see Figure 4).

These indicators reflect a trend of population ageing, highlighting the need for supportive measures for the elderly and policies that promote the growth of the active population.

The values of these indicators by administrative units of the Municipality of Elbasan are presented in Table 1. An older population (aged 65+) is observed in five administrative units: Elbasan, Funar, Gjergjan, Gjinar, and Papër, where the elderly dependency ratio is higher than both the district and national levels (30.4). In the remaining eight administrative units, the value of this indicator is lower than the national level, resulting in an overall municipal situation that is nearly aligned with the national average.

Regarding the youth dependency ratio, the most favorable situation, values at least equal to the district or national average (24) is observed in five administrative units: Bradashesh, Labinot-Fushë, Labinot-Mal, Papër, and Shushicë. In the remaining administrative units, the value of this indicator is below 24.

Figure 4. Dependency Ratios at the Municipal, District and National Levels



Source: INSTAT, Population and Housing Census 2023, own calculations

Table 1. Dependency Ratios by Administrative Units, Municipality of Elbasan

Municipality/Administrative Units	Dependency Ratios		
	Overall dependency ratio	Youth dependency ratio	Elderly dependency ratio
Bradashesh	46.87	24	22.85
Elbasan	54.2	22.98	31.22
Funarë	57.16	21.97	35.19
Gjergjan	54.7	20.77	33.93
Gjinar	57.88	20.35	37.53
Gracen	43.27	18.76	24.51
Labinot Fushë	45.81	27.52	18.29
Labinot Mal	50.13	30.99	19.12
Papër	57.63	24	33.63
Shirgjan	52.32	22.3	30
Shushicë	51	26.23	24.81
Tregan	55.88	24.5	31.37
Zavalin	61.76	18	43.72
Municipality of Elbasan	52.87	23.62	29.24
District of Elbasan	53.74	23.5	30.23
National level	54.4	24	30.4

Source: INSTAT, Population and Housing Census 2023, own calculations

Demographic data for the Municipality of Elbasan indicate a clear trend toward population ageing, reflected in several key indicators:

- *Population decline* – This results from negative natural growth (-131; more deaths than births) and negative net internal migration (-197; more people leaving than arriving).
- *Population ageing* – The average age of residents is 41.7 years, while the median age is 43.2 years, higher than the county median age in 2022 (41 years).
- *Declining fertility and family structure*, according to the 2023 Census data:
 - 35.6% of married or cohabiting couples have no children.
 - 54.6% have children, but the majority (85.3%) have no more than two children.
 - Single-parent families account for 9.8% of the total, with 64.6% of these having only one child.

Furthermore, in the Municipality of Elbasan, women of reproductive age constitute 40.2% of the total female population, reflecting the area’s potential for fertility.

These indicators highlight significant demographic challenges for the Municipality of Elbasan, including population ageing, declining fertility, and emigration. This situation calls for policies focused on supporting families, increasing incentives for childbearing, and improving conditions for young people, in order to curb emigration and enhance the long-term demographic structure.

Education and human capital

The educational profile of the Municipality of Elbasan, based on the 2023 Census data and administrative statistics, reflects an intermediate level of development, with noticeable progress in certain indicators but also structural challenges that affect human capital and local economic development.

In terms of educational attainment, the population of the municipality shows an almost balanced distribution between basic and higher levels of education. Specifically, 48.03% of the population has completed primary and nine-year compulsory education, 32.57% have completed secondary or vocational education, and only 18.55% have attained higher education. In a broader classification, 50.2% of the population has a low educational level, while 49.8% has secondary or higher education. This distribution indicates a relatively limited base of qualified human capital, which may negatively impact labor market competitiveness and investment attraction.

The illiteracy rate (2.6%) is lower than the county average but remains above the national level, highlighting ongoing needs for interventions to improve educational inclusion.

In pre-university education, there is a positive trend toward vocational training. Approximately 24.6% of secondary school students attend vocational schools, a share significantly higher than the county average (15.5%), suggesting growing awareness of the importance of practical skills and labor market demands. However, infrastructure remains limited, as only one vocational school operates throughout the municipality, concentrated in the Elbasan administrative unit, creating territorial inequalities in access.

Preschool education represents one of the main challenges. Only 15.1% of children aged 0–6 attend nurseries, and 32.7% attend kindergartens, while over half (52.2%) are not enrolled in any preschool institution. Low nursery attendance, especially among the 0–2 age group, may have social and economic implications, limiting women’s participation in the labor market and

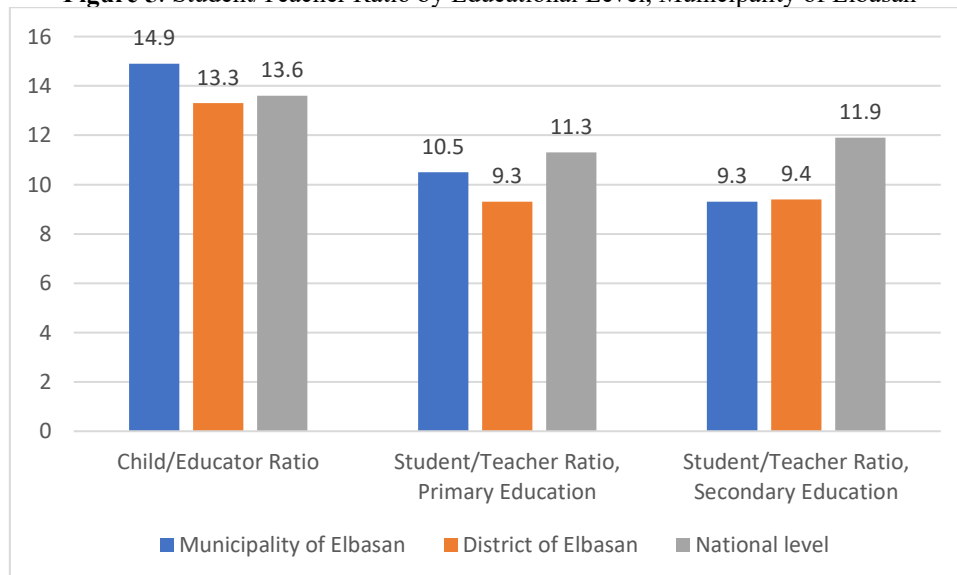
early childhood development. Nevertheless, for the 4–5 age group, participation in kindergarten is very high (91.8%), indicating improved access at the later stages of preschool education.

In terms of gender, education in the Municipality of Elbasan is characterized by a predominance of females at higher educational levels. Women constitute 60.4% of students in higher education and dominate across all cycles (bachelor’s, master’s, and doctoral programs). In contrast, males are more present at lower educational levels, which may be associated with factors such as earlier entry into the labor market or migration. This pattern indicates gender differences in educational continuation and potentially in the future structure of the labor market.

The educational network within the municipality is relatively developed and covers all levels of education. The municipality has 3 nurseries, 106 kindergartens, 87 primary schools, and 17 secondary schools (16 general high schools and 1 vocational school). However, territorial distribution is unequal, as some administrative units lack secondary schools, limiting access for students in rural areas. In higher education, the presence of two universities, including “Aleksandër Xhuvani” University, represents an important asset for the educational and academic development of the area.

The student/teacher ratio in primary education (10.5) and secondary education (9.3) is relatively favorable compared to the national average, suggesting better conditions for teaching. However, the child/educator ratio in preschool education (14.9) remains higher than the national average, indicating a greater workload in early childhood education. (See Figure 5). Regarding these quality indicators, the student/teacher and child/educator ratios show a significant improvement compared to 2015 (these values were 16.7 and 17.7 respectively for primary and secondary education and 19.01 for preschool education), mainly due to declining birth rates and migration.

Figure 5. Student/Teacher Ratio by Educational Level, Municipality of Elbasan



Source: Ministry of Education, *Statistical Yearbook of Education and Sport, 2022–2023*

In conclusion, the education system in the Municipality of Elbasan is characterized by a comprehensive institutional structure and several positive indicators, such as the emphasis on vocational education and improved teaching ratios. Nevertheless, significant challenges remain, including a relatively low level of higher education attainment, limited preschool enrollment, and territorial inequalities in access to education. Addressing these issues through

targeted education and vocational training policies is essential for enhancing human capital and supporting the sustainable economic development of the municipality.

Implications for sustainable regional development

The findings indicate that demographic decline and ageing pose significant risks to the long-term sustainability of the Elbasan Region. However, the presence of human capital and educational infrastructure offers opportunities for policy intervention. Retaining skilled individuals, particularly young graduates, and aligning education with labor market demand are crucial for mitigating demographic pressures.

Conclusions

This paper analyzed demographic transition and human capital dynamics in the Elbasan Region, highlighting the combined effects of population decline, ageing, migration, and educational disparities at the sub-national level. The findings show that, despite a relatively large working-age population, increasing old-age dependency and continuous out-migration are weakening the region's development potential.

The results suggest that the main challenge is not only demographic shrinkage, but the inefficient use and uneven distribution of human capital. While progress is observed in vocational education and female participation in higher education, structural gaps in educational attainment and territorial access persist.

Addressing these challenges requires targeted, place-based policies that strengthen the link between education and labor market needs, expand vocational and lifelong learning opportunities, and improve social support systems, particularly for families and the elderly.

Overall, sustainable regional development in Elbasan and similar non-metropolitan areas depends on shifting toward human capital-driven and territorially balanced development strategies in the context of ongoing demographic transition.

References

- Aksoy, Y., Basso, H. S., Smith, R. P., & Grasl, T. (2019). Demographic structure and macroeconomic trends. *American Economic Journal: Macroeconomics*, 11(1), 193–222.
- INSTAT. (2024). *Population and Housing Census 2023*. Tirana: Institute of Statistics.
- Kiri, L. (2024). The Relationship Between Labor Market Migration and Human Capital in Albania. *International Journal of Advanced Natural Sciences and Engineering Researches*, 8(3), 28–34
- Kotschy, R., & Bloom, D. E. (2023). Population ageing and economic growth: From demographic dividend to demographic drag? *Journal of Economic Perspectives*, 37(3), 229–252.
- Maestas, N., Mullen, K. J., & Powell, D. (2016). The effect of population aging on economic growth, the labor force, and productivity. *American Economic Journal: Macroeconomics*, 8(1), 1–36.
- Ministry of Education and Sports. (2023). *Statistical Yearbook of Education and Sports*. Tirana.
- UNICEF Albania. (2026, February 9). *Human Capital Development White Paper*. UNICEF. <https://www.unicef.org/albania/media/8921/file/Human-Capital-Development-white-Paper.pdf.pdf>
- World Bank. (2022). *Albania Systematic Country Diagnostic*. Washington, DC: World Bank.
- World Bank. (2023). *Western Balkans regular economic report: Testing resilience*. World Bank Group.

GREEN ECONOMY TRANSITION PROCESS IMPACT ON THE ENVIRONMENT IN ALBANIA

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Abstract

The efforts, achievements, and results towards the transition from the classical economy to the green economy are studied mainly from two perspectives. First, from the economic perspective, and second, from the environmental perspective. In this paper, the authors have made an empirical effort to reflect the effects of the green economy in Albania on the environment. For the purpose of the research outlined in this paper, the authors used annual data for the following variables: Gross capital formation and environmental indicators like CO₂ per year, CH₄ per year, NO_x per year, HFCs per year for the period from 1990 to 2022. Apart from basic descriptive statistics, the authors also performed correlation and regression analyses. Based on the research interest, the following hypotheses H₁ was raised: size of gross capital formation affects environmental indicators. Based on the log-log regression analysis the authors have shown significant relationship between investments and environmental indicators. A significant positive interaction between investments and CO₂ emissions in Albania was observed. The analysis showed that the rise in investments has a negative impact on the environment, i.e., that greenhouse gas emissions of carbon dioxide are increased as well excluding methane and nitrogen oxides. The authors conclude that transitioning towards green economy is not an easy nor a short process and to ensure a fully green recovery, Albania must tackle a set of important challenges.

Keywords: Green Economy, Green Transition, Gross Capital Formation, GHG Emissions, Albania

Introduction and literature review

Creating a green economy and to achieve meaningful change the more significant economic players, companies, countries, and international organizations must take action, but, individual contributions can also be an enormous help (MET Group, 2022). In response to the need to reduce the negative environmental impact, a slew of “Green Initiatives” has emerged from the Government, Business organizations, Educational Institutions, Non-Governmental Organizations (NGO’s) etc. It was practiced earlier in western countries but now spreading to other parts of the world. From the basics of “Reduce, Reuse, Recycle” to use of renewable sources of energy such as solar, wind etc. according to the nature of the region to construction of Leadership in Energy and Environmental Design (LEED) certified, the so-called “Green Buildings”, the initiatives fall in a wide spectrum (Promod & Ramachandran, 2019). The model of restructuring economic activities to the specificity of a green economy addresses the

interdependent pillars of sustainable development: environmental concerns; renewable energy; low carbon levels (Batrancea, Pop, Rathnaswamy, Batrancea, & Rus, 2021). According to the Kyoto Protocol, programmes with climate change focus, would concern the energy, transport, industry sectors as well as agriculture, forestry and waste management. Furthermore, adaptation technologies and methods for improving spatial planning would improve adaptation to climate change (United Nations, 1998). In Europe, the Emissions Trading System (ETS), also known as the carbon dioxide quota, was created in connection with the Kyoto Protocol. It can be considered effective, but it is by no means a perfect system for controlling climate change. The European Union is the third largest carbon dioxide emitter in the world. At the same time, the EU is doing the most to change this and reverse harmful natural processes. The ETS was created in 2005 for this purpose, initially on a test basis and then in full from 2008 (EU Emissions Trading System, 2022). The revised ETS Directive entered into force on 8 April 2018 and sets the framework for the fourth trading period from 2021 to 2030 including the intermediate target of an at least 55% net reduction in greenhouse gas emissions by 2030 (Association of European Energy Exchanges, 2023). Under the Paris Agreement, its overarching goal by 2030 (compared to the 1990s) is to hold “the increase in the global average temperature to well below 2°C above pre-industrial levels” and pursue efforts “to limit the temperature increase to 1.5°C above pre-industrial levels” (United Nations, 2023). An inclusive Green Economy is a thriving economy that delivers the linked economic, social and environmental outcomes sought by the Sustainable Development Goals (SDG) and the Paris Agreement. It follows five key principles: the wellbeing principle, the justice principle, the planetary boundaries principle, the efficiency and sufficiency principle and the good governance principle. The whole process couldn’t be recognized without priorities in order to accelerate economic transformation and pathways (Partners for Inclusive Green). Currently, the challenges for world economies are threefold: Controlling climate change; eradicating poverty and advancing sustainable development goals (Batrancea, Pop, Rathnaswamy, Batrancea, & Rus, 2021). The green economy has the potential to achieve what sustainable development cannot and can in some way address the limits of traditional economic growth (Zhu, Zhang, Kanhalikham, Liu, & Shen, 2023). A large number of authors have researched how investments will impact GDP and employment but the impact of investments on environmental indicators has not been sufficiently explored (Bogovic & Grdic, 2020). Stoimenova studied the consumption behaviour in Bulgaria and revealed that Bulgarians are moderately knowledgeable about the environment problems and the depth of knowledge is moderate as well. The environmental knowledge differs between different demographic groups: the better educated, younger, those living in the cities and wealthier people have better self-reported knowledge about the environmental problems. The results of the research to some extent confirm the common conclusions that people are more interested in the problems that could affect them personally and directly (Stoimenova, 2016). The study of Kamasak, Yozgat and Yavuz stresses the importance of the leadership. They revealed that leadership activities contributed more than government policies on the adoption of green management practices of the firms. In this sense, the impact of leadership on the way of implementing the green related issues can be more than that of the governmental policies. When the two variables act together, firms can adopt green management practices much easier and effectively (Kamasak, Yozgat, & Yavuz, 2016). Bogovic and Grdic proved the positive link between investment values, GDP and employment trends in Croatia, as well as between Sulphur, CO₂ and NO_x emissions (Bogovic & Grdic, 2020). Saidi and Omri used both growth and environmental functions to demonstrate the effectiveness of renewable energy in promoting economic growth and mitigating carbon emissions. They showed the efficiency of renewable energy in increasing economic growth and reducing carbon emissions (Saidi & Omri, 2020). A study from China investigated the role of natural resources rent, green investment, financial development and

energy consumption in mitigation of carbon emissions to achieve sustainable development goal of a clean environment. The authors proved that green investment is negatively linked to CO₂, whereas national natural resources rent is positively associated with carbon emissions. This study recommends strengthening of national natural tax law, promotion of green investment and environmental friendly policies to control carbon emissions (Shen, et al., 2021). Alola, Bekun and Sarkodi investigated the drivers that reduce greenhouse gas (GHG) emissions in EU member countries. They found that 1% increase in real GDP increases environmental quality by 0.81% in the long-run. Renewable energy consumption was found to improve environmental sustainability and diversification of the energy mix with renewables is essential to reducing pollution (Alola, Bekun, & Sarkodie, 2019). Shahbaz, Lorente and Sinha examined the association between foreign direct investment (FDI) and carbon emissions for the Middle East and North African region in 1990–2015, including biomass energy consumption as an additional determinant of carbon emissions. They found that biomass energy use lowers carbon emissions, and the causality analysis reveals that FDI causes CO₂ emissions. The results confirm the existence of a feedback effect between economic growth and carbon emissions. The empirical findings suggest policy makers to design comprehensive trade and energy policies by targeting the cleaner production practices, for not only to ensure environmental sustainability, but also to fulfil the objectives of sustainable development goals (Shahbaz, Balsobre-Lorente, & Sinha, 2019). Bekun, Alola and Sarkodie investigated the long-run and causal interaction between, renewable energy consumption, non-renewable energy consumption, and economic growth in a carbon function for selected EU-16 countries. They found cointegration between carbon dioxide emissions, economic growth, natural resources rent, renewable, and non-renewable energy consumption. Their study affirmed that non-renewable energy consumption and economic growth increase carbon emission flaring while renewable energy consumption declines CO₂ emissions (Bekun, Alola, & Sarkodie, 2019).

In Albania, in the environment context, environment protection is one of 127 programs funded by the state budget and the budget allocated for it is very low. In the last 4 years (2019-2022), the budget has been 0.23-0.18% of the total budget of the government, much lower value than other countries of the Balkan. While the 2026 draft budget allocates approximately 3.1 billion ALL to the environmental sector, making a 9% increase from the previous year. Key investments focus on climate change adaptation, forest rehabilitation and waste water infrastructure. Albania plans to implement a major long-term 2026-2036 strategy requiring significant investment for climate resilience. Albania has set a target to reduce GHG emissions through an inclusive process (Westminster Foundation for Democracy, 2022). Main greenhouse gases causing pollution in Albania are CO₂, CH₄, N₂O and HFCs (Kamberi, Islami, Diku, Profka, & Selfo, 2021). In its enhanced Nationally Determined Contributions (NDC) under the Paris Agreement, Albania committed to reduce GHG emissions by 20.9% by 2030 compared with business as usual. In its first NDCs, Albania had committed to reduce CO₂ emissions by 11.5% between 2016 and 2030 compared with the baseline scenario (OECD, 2022). Albania has the lowest per-capita carbon dioxide (CO₂) emissions in the Western Balkan region and in Europe. In 2018, its per-capita CO₂ emissions were only 1.5t CO₂, against a regional average of 4.4t and an EU average of 6.1. In relation to economic output, however, Albania's GHG emissions (0.27t CO₂ per unit of GDP [2015 USD]) remain above the EU average (0.16 t CO₂ per unit of GDP). Albania performs well in terms of energy efficiency and GHG emissions because it relies almost entirely on hydropower for electricity generation but lacks a GHG monitoring, reporting and verification mechanism (Westminster Foundation for Democracy, 2022) (OECD, 2022). Regarding recycling, due to the delayed development of a national legal framework for integrated waste management, Albanian producers are not incentivized to decrease waste at the source. In addition, municipalities often lack the organizational capacity to ensure recycled waste collection and companies deem current

government incentives and subsidies not up to the task. Albania's future access to the EU market and the preparation to the higher competition that Albanian companies will encounter provide strong incentives both for the private and public sector to increase the pace of their work towards sustainability (UNDP Albania, 2023). Albania is rich in natural resources but the country is impacted from extreme weather such as: flooding, prolonged drought, erosion, etc., and one of the most vulnerable countries in the region regarding climate change. In the last two decades there is an increase in temperature, decrease of precipitation and a more frequent display of the extreme weather phenomena. The most vulnerable sectors are agriculture and energy (Westminster Foundation for Democracy, 2022). One of the key issues that needs to be addressed in Albania is the high energy consumption in residential and public buildings. In 2019, the residential sector accounted for 24% of final energy consumption in Albania; in 2018, this sector accounted for 53% of electricity consumption. At present, solar and wind energy account for only 2% of residential energy consumption. For space heating, Albania relies mainly on electricity (45.8%), fuel wood (35%) and oil products (19.3%), with liquefied petroleum gas (LPG) holding the major share of the latter. Many Albanian homes are only partially heated, meaning for just a few hours per day. Continued reliance on traditional biomass burnt in outdated woodstoves results in numerous environmental and health problems. According to Albania's residential and public building typologies, all residential and public buildings constructed prior to 2010 completely lack insulation. Albania requires a financing framework and a strategy to raise sufficient financial resources for energy efficiency improvements in buildings. An estimated EUR 2.3 to 2.7 billion is needed for energy efficiency improvements in Albania's building sector until 2030. Air pollution in Albania is lower than in other Western Balkan economies, but remains a challenge in comparison to international benchmarks. While the World Health Organization (WHO) recommends a maximum annual average PM_{2.5} air pollution of 10 µg/m³ the average in Albania was 18.6 µg/m³ in 2017, compared with 25.8 µg/m³ in the Western Balkan region and only 12.5 µg/m³ in the European Union. Among 41 European countries, Albania ranks third (after Kosovo and Serbia) in terms of years of life lost per 100 000 inhabitants due to PM_{2.5} air pollution¹. Sources of air pollution in Albania include oil and gas extraction, inefficient technologies for household heating, cement production, and vehicle emissions (transport). Transport is the main contributor to air pollution in Tirana (OECD, 2022). The use of solar power is more widespread in Albania than in other Western Balkan economies but remains limited. In 2019, photovoltaic (PV) solar power generated 0.4% of electricity in Albania compared with 0.2% on average across the region. In 2018, solar thermal energy accounted for 0.6% of final energy consumption in Albania (against 0.1% on average in the region) and for 1.6% of residential energy consumption (against 0.1% in the region). Solar thermal energy amounted to 2.4% of commercial and public energy consumption in Albania compared with 0.6% as the regional average. Albania's transport sector is very energy-intensive and polluting. In 2019, this sector accounted for 40.7% of final energy consumption – the highest share in the Western Balkan region and above the EU average (31.3%). In 2005, Albania's transport sector accounted for 23.5% of total GHG emissions, with data showing a rising trend to 25.5% in 2009 (latest data available). At 97.5%, road transport accounts for, by far, the largest share of transport GHG emissions (OECD, 2022). Eight policy priorities have great potential to ensure a green recovery in Albania, with energy efficiency improvements in buildings being the first-order priority (OECD, 2022):⁵

- ✓ Set incentives and create enabling conditions for energy efficiency improvements in buildings

- ✓ Complete legal and institutional frameworks for energy efficiency in buildings, and fully implement existing legislation
- ✓ Prioritize implementation of energy and climate policies
- ✓ Improve monitoring of air quality
- ✓ Finalize and fully operationalize policy and support frameworks for renewables
- ✓ Create the enabling conditions for investment in renewables
- ✓ Improve monitoring, planning and environmental standards for Small Hydropower Plants (SHPP), and re-evaluate remaining subsidies for SHPPs
- ✓ Improve, modernize and decarbonize the transport system.

Methodology

For the purpose of the research outlined in this paper, the authors used annual data for the following variables: Gross capital formation, (current US\$) and environmental indicators CO₂ per year (kilo tons), CH₄ per year (kilo tons of CO₂ equivalent), NO_x per year (thousand metric tons of CO₂ equivalent), HFCs per year (thousand metric tons of CO₂ equivalent). These variables were analysed in Albania for the period from 1990 to 2022. The indicators were drawn from the World Bank Data Indicators. It wasn't possible to gain full data for the HFCs variable because the latest value date from 2010 and there are missing values during the 1990-2010 period too. For this reason we used only some descriptive statistics and charts to show the trend of this variable. The statistical analyses were conducted using both the IBM SPSS Statistics 26 version and EViews 12 version. Apart from basic descriptive statistics, the authors also performed correlation and regression analyses. Based on the research interest, the following hypotheses was raised:

Hypotheses 1(H₁): size of gross capital formation affects environmental indicators.

Based on the research hypotheses, an econometric model was obtained where the size of gross capital formation was defined as an independent variable, while dependent variables CO₂, CH₄ and NO_x. The first part of the statistical analysis defined the Pearson correlation between the stated variables, and the second part used the following log-log regression:

$$\log y_i = \alpha + \beta \log x_i$$

Where y_i is one of the stated dependent variables and x_i is the independent variable.

Results and Discussion

This paragraph outlines the results obtained through the conducted analysis. The statistical analysis of variables in the model was conducted first and is shown in Table 1.

Table 1. Descriptive statistics of variables.

	Gross Capital Formation	CO ₂	CH ₄	NO _x
Valid N	32	31	31	31
Missing	1	2	2	2
Mean	2287907781.03	3881.9548	3362.0815	1198.2617
St. deviation	1527585026.40	1245.7409	347.46505	102.87038

Source: Own calculations

The data shows that the mean value of gross capital formation executed is 2.28 billion dollar and the highest value was achieved in 2008 after which investments began to drop. After 2017 they experienced an increase, achieving its second highest value in 2021 with 4.44 billion comparing to 4.6 billion in 2008. Regarding environmental variables the data show a mean of 3881.95 kt of CO₂. From 1990-2003, a significant decrease in carbon dioxide emissions is observed, below the mean value. From 2004-2020 there is an increase in CO₂ emissions above the average emission with approximately 1000 kt above mean value. The mean value of CH₄ is 3362.08 (kilo tons of CO₂ equivalent). It is interesting how methane emissions declined till 2007 but still its values are above the mean value of 3362. From 2007-2020 CH₄ emissions have been below the mean value with a decreasing trend. The mean value of NO_x equals 1198.26 (thousand metric tons of CO₂ equivalent). Its emissions have been declining below the mean value starting in 2008, reaching its lowest value in 2020 (latest value), 1015.19 (thousand metric tons of CO₂ equivalent). Until 2008, its emissions fluctuated up and down around the mean value. Regarding the emissions of HFCs, the data have been limited. During the period 1990-2010, there are only five values available from the World Bank and an increasing trend is observed. Due to the lack of data for the entire stated period, we will not include this variable in the following analytic analysis.

In order to determine the relationship between gross capital formation and environmental indicators, a correlation analyses was conducted and the Pearson coefficient was calculated (Table 2).

Table 2. Pearson coefficient for gross capital formation and other variables

Indicator	Correlation Coefficient	Significance
CO ₂	0.688	0.000
CH ₄	-0.615	0.000
NO _x	-0.158	0.396

Source: Own calculations

CO₂ shows a positive link with gross capital formation and the strongest relationship according Pearson correlation coefficient. The weakest relationship is observed between NO_x and gross capital formation and it is the only insignificant relationship. The results show that increasing gross capital formation is statistically significantly connected with an increase in pollution when it comes to carbon dioxide, which is the main greenhouse gas contributor in Albania, but not when it comes to methane and nitrogen oxides. In Table 3 is shown results from univariate regression log-log analysis, ADF test and cointegration. Before running the regression, stationarity was tested under the null hypothesis that variables contain a unit root. Augmented Dickey Fuller test show that all variables contain a unit root, NO_x makes an exception. Since the variables are not stationary, it is necessary to test the cointegration to avoid the occurrence of spurious regression. Johansen procedure was performed in this case. In all cases, it was possible to find cointegration. The analysis conducted shows that raising investments by 1% on average leads to an increase of CO₂ emissions by 0.21%. While an increase in investments by 1% on average leads to a decrease of CH₄ by 0.05% and NO_x by 0.01%.

Table 3. Univariate regression log-log analysis, ADF and cointegration

Indicator	Regression Coefficient	R ²	p	ADF	p	Maximum Eigenvalue	p
CO ₂	0.210	0.476	0.000	-1.267	0.631	14.26	0.001
CH ₄	-0.050	0.378	0.000	-0.064	0.955	14.26	0.000
NO _x	-0.010	0.031	0.333	-4.304	0.002	14.26	0.004

Source: Own calculations

According to National Greenhouse Gas Inventory Report under the Albania's First Biennial Update Report, for the years 2009-2016, CO₂ is the most significant GHG in Albania, followed by CH₄ and in a small percentage by indirect N₂O emissions from the atmospheric deposition of nitrogen in NO_x and NH₃, N₂O (2%). Based on the results of the analyses it can be concluded that the research hypothesis has been confirmed. An increase in the level of investments affect environmental indicators. The analysis showed that the rise in investments has a negative impact on the environment, i.e., that greenhouse gas emissions of carbon dioxide are increased as well excluding methane and nitrogen oxides.

Conclusions

This research adopted the Croatian research design of Bogovic and Grdic and proved the link between gross capital formation and environmental indicators in Albania. This paper has also proven similar research results by other authors, as stated earlier in the introduction and literature review section. The authors showed a significant positive interaction between investments and CO₂ emissions. The analysis showed that the rise in investments has a negative impact on the environment, i.e., that greenhouse gas emissions of carbon dioxide are increased as well excluding methane and nitrogen oxides. The authors conclude that transitioning towards green economy is not an easy nor a short process and to ensure a fully green recovery, Albania must tackle a set of important challenges.

References

- Association of European Energy Exchanges. (2023). EU Emissions Trading System Directive (EU ETS). Retrieved from Europex Web Site: <https://www.europex.org/eulegislation/eu-ets-directive/>
- Alola, A. A., Bekun, F. V., & Sarkodie, S. A. (2019). Dynamic impact of trade policy, economic growth, fertility rate, renewable and nonrenewable energy consumption on ecological footprint in Europe. *Science of the Total Environment*, 702-709.
- Batrancea, L., Pop, M. C., Rathnaswamy, M. M., Batrancea, I., & Rus, M.-J. (2021). An empirical investigation on the transition process toward a Green Economy. *MDPI*.
- Bekun, F. V., Alola, A. A., & Sarkodie, S. A. (2019). Toward a sustainable environment: Nexus between CO₂ emissions, resource rent, renewable and nonrenewable energy in 16-EU countries. *Science of the Total Environment*, 1023-1029.
- Bogovic, N. D., & Grdic, Z. S. (2020). Transitioning to a Green Economy - Possible Effects on the Croatian Economy. *MDPI Journal Sustainability*.
- EU Emissions Trading System. (2022, November 30). MET Group. Retrieved from MET Group Web Site: <https://group.met.com/en/mind-the-fyouture/mindthefyouture/eu-emissions-trading-system-eu-ets>
- Kamasak, R., Yozgat, U., & Yavuz, M. (2016). Government Policies, Implementation Leadership and Green Management Practices in an Emerging Economy. *International Journal of Trade, Economics and Finance*, 97-101.

- Kamberi, M., Islami, B., Diku, A., Profka, D., & Selfo, G. (2021). National Greenhouse Gas Inventory Report under the Albania's First Biennial Update Report to UNFCCC. Tirana: Ministry of Tourism and Environment.
- Merko, F., Balla, A., & Biancardi, M. (2023). Building a sustainable growth model toward a green economy in Albania. UNICARTradEconomy & Finance International Conference (pp. 227-236). Cosenza (Italy): University of Calabria.
- MET Group. (2022, December 29). Green Economy: meaning and examples. Retrieved from MET Group Web Site: <https://group.met.com/en/mind-the-future/mindthefuture/green-economy>
- OECD (2022). Multi-dimensional review of the Western Balkans: From analysis to Action. Paris: OECD Development Pathways, OECD Publishing.
- OECD Green Growth Studies. (2011). Towards Green Growth. Paris: OECD Publishing.
- Partners for Inclusive Green Economies. (2019, July 16). Principles, priorities and pathways for inclusive green economies: Economic transformation to deliver the SDGs. Retrieved from Green Economy Coalition Web Site: [https://www.greeneconomycoalition.org/assets/reports/GEC Reports/Principles-priorities-pathways-inclusive-green-economies web.pdf](https://www.greeneconomycoalition.org/assets/reports/GEC%20Reports/Principles-priorities-pathways-inclusive-green-economies%20web.pdf)
- Promod, P. V., & Ramachandran, R. (2019). Ecopreneurship: A step towards going green. Research Review International Journal of Multidisciplinary.
- Saidi, K., & Omri, A. (2020). The impact of renewable energy on carbon emissions and economic growth in 15 major renewable energy consuming countries. Environmental Research, Vol 186.
- Scott, A., McFarland, W., & Seth, P. (2013). Research and Evidence on Green Growth. Overseas Development Institute for Evidence on Demand and UK Department for International Development.
- Shahbaz, M., Balsobre-Lorente, D., & Sinha, A. (2019). Foreign direct Investment–CO₂ emissions nexus in Middle East and North African countries: Importance of biomass energy consumption. Journal of Cleaner Production, 603-614.
- Shen, Y., Su, Z.-W., Malik, M. Y., Umar, M., Khan, Z., & Khan, M. (2021). Does green investment, financial development and natural resources rent limit carbon emissions? A provincial panel analysis of China. Science of the Total Environment, Vol 755, Part 2.
- Stoimenova, B. (2016). Knowledge and attitudes about green consumption in Bulgaria. Economic Themes, 499-515.
- UN Joint Programme Leave No One Behind . (2023). Annual Progress Report August 2022 - June 2023 . Tirana: United Nations House.
- UNDP Albania. (2023). Sustainable Packaging: an opportunity for the development of Albanian companies. Retrieved from UNDP Web Site: <https://www.undp.org/albania/news/sustainable-packaging-opportunity-development-albanian-companies>
- UNDP Albania. (2023). Sustainable resilient and green economic growth and resource management. Retrieved from UNDP Web Site: <https://www.undp.org/albania/sustainable-resilient-and-green-economic-growth-and-resource-management>
- UNDP Albania. (2023). UNDP Albania: About us. Retrieved from UNDP Web Site: <https://www.undp.org/albania/about-us>
- UNEP. (2010). Green Economy Reports: A preview. Saint Martin Bellevue: UNEP.
- United Nations. (1998). Kyoto Protocol to the United Nations Framework. Convention on Climate Change. Retrieved from United Nations Web Site: https://unfccc.int/kyoto_protocol
- United Nations. (2023). The Paris Agreement. UNFCCC. Retrieved from United Nations Climate Change Web Site: <https://unfccc.int/process-and-meetings/the-paris-agreement>
- Westminster Foundation for Democracy. (2022, August). Green Budgeting in Albania. Tirana: WFD Limited; Milieukontakt Albania; Studio D – Development and Dialog; UK Government.
- World Bank. (2023, October 10). Albania Overview: Development news, research, data. Retrieved from World Bank Web site: <https://www.worldbank.org/en/country/albania/overview#2>
- World Bank. (2023, October 10). Albania Overview: Development news, research, data. Retrieved from World Bank Web Site: <https://www.worldbank.org/en/country/albania/overview>
- Zhu, J. J., Zhang, R., Kanhalikham, K., Liu, Z., & Shen, X. (2023, June 26). Green economy studies amongst the global climate change challenge between 2016 and 2022: a bibliometric review. Retrieved from Frontiersin Web Site: <https://www.frontiersin.org/articles/10.3389/fevo.2023.1168437/full>

PRISON OVERPOPULATION AND THE POSITIVE OBLIGATIONS OF THE ALBANIAN STATE ACCORDING TO EUROPEAN STANDARDS

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Abstract

Prison overcrowding over the last decade has been a topic of debate in many countries around the world, including Albania, due to its direct impact on the respect for human rights and the effectiveness of the sentence itself in reintegration. According to current data, by November 2025, the prison population in our country will be 4,578, with a rate of 196 detainees per 100,000 inhabitants, of whom 58% are pre-trial detainees. These figures show that intensive pre-trial detention, as the first tool used by the justice system, is one of the main factors in prison overcrowding, undermining the purpose of rehabilitation and encouraging violence within prison institutions, which then leads to violations of Article 3 of the ECHR. Another factor is that in recent years the Court has not used alternative measures clearly defined by the Criminal Procedure Code, such as the property guarantee, which is used less often; in 2024, in only 15 cases nationwide. This figure may result from the numerous criticisms that judges and prosecutors have faced from the executive branch in recent years.

This paper analyses overcrowding in Albanian prisons, considers European standards, identifies the main causes, and assesses their impact on the respect for the rights of prisoners and detainees. In conclusion, it is intended to provide concrete recommendations for improving criminal policies and alternative measures to imprisonment as a legal requirement for each country.

The method of this paper combines legal, comparative, empirical, and statistical analysis of concrete data on the prison population.

Keywords: Albanian Criminal Procedure Code, Effectiveness of Sentencing, European Standards, Imprisonment, Pre-Trial Detainees, Reintegration

Introduction

Overcrowding in prisons is a global problem that lacks a universally recognized definition; the CPT defines it as numbers exceeding the maximum capacity (Donald & Morag, 2019). Overcrowding is a serious problem for the criminal justice system, negatively impacting

people's rights and the system's effectiveness. This problem should be understood as a matter of obligations that the state owes to its citizens, rather than merely an administrative concern (Baggio et al., 2020; Nudd et al., 2024).

In Europe, the European Convention on Human Rights safeguards the rights of individuals who are deprived of their freedom. Article 3 of the Convention forbids inhumane and degrading treatment irrespective of the circumstances of the state in question. According to the European Court of Human Rights, overcrowding and the lack of personal space, proper hygiene, and other conditions can constitute inhuman and degrading treatment, thereby requiring preventive measures.

Prison overcrowding in Albania is attributable to the overreliance on pretrial detention as well as inadequate utilization of alternatives. According to the latest statistics, the percentage of people held in prison awaiting trial is very high. This is of concern, as it raises doubts about whether Albania is meeting its positive obligations under the European Convention on Human Rights.

2. Methodology

The mixed-methods research approach has been adopted in this study, merging quantitative and qualitative analyses using official data sources. The main data sources used in this paper are the Criminal Procedure Code, the European Convention on Human Rights (ECHR), and publications of the Ministry of Justice, the General Prosecutor's Office, and the Supreme Audit Office.

Quantitative analysis focuses on the period 2017–2024, examines changes in the prison population, and uses year-to-year comparisons to evaluate the balance between pre-trial detention and capacity.

Table 1. Statistical analysis of the prison population (2017-2025)

Years	Pre-trial	Convicts	Pre-trial detention rate %
2017	2593	2873	47.4%
2018	2329	3082	43.0%
2019	2202	2948	42.8%
2020	2221	2492	47.1%
2021	2610	2201	54.2%
2022	2858	2202	56.5%
2023	2822	2195	56.2%
2024	2941	1800	62.0%
2025	2569	1934	57.1%

Source: Compiled and calculated by the author based on the Annual Statistical Yearbooks of the Ministry of Justice, reports from the General Directorate of Prisons, and own calculations (2017–2025).

A qualitative analysis of court cases from the Elbasan and Durrës Courts of the period 2023–2026 examines how the principles of extrema ratio and proportionality are applied to security measures.

The study encountered specific limitations. Concretely, the use of alternative measures, such as securing properties, is uncommon; only 15 cases were recorded in 2025 (Report of the Prosecutor General, 2024). This makes it difficult to draw solid statistical conclusions on its effectiveness as an alternative to arrest. There are also differences between institutional reports that demonstrate the necessity of digitalization and the creation of uniform databases.

3. Results and Discussion

3.1 The legal framework, along with the positive obligations of the state in the European system

3.1.1 The Framework of the European Convention on Human Rights and its Importance in the Penitentiary System

The analysis of prison overcrowding and the Albanian state's responsibility in this area should be grounded in the legal framework created by the European Convention on Human Rights (Council of Europe, 1950), which is the fundamental instrument for the protection of human rights in the European space. Unlike declaratory instruments, this Convention has a binding character for the States Parties and creates concrete legal responsibilities for the effective guarantee of the rights set forth therein. In this system, Article 3 of the Convention occupies a central position, as it absolutely prohibits torture and inhuman or degrading treatment. This article has a special legal nature because it is unconditional and does not permit any derogation, not even in emergencies or serious national difficulties. This makes its standard one of the strongest in the entire European human rights system (Kudła v. Poland 2000). In the context of the penitentiary system, this article takes on a direct dimension, since the conditions of detention, the treatment of prisoners, and the organization of state institutions are subject to constant scrutiny for their respect for human dignity. In this sense, prison overcrowding cannot be seen as a purely administrative problem but as a situation that could lead to direct violations of Article 3.

3.1.2 The concept of positive obligations of the state and its jurisprudential evolution

One of the most important developments in the interpretation of the Convention system is the concept of the State's “positive obligations,” developed and consolidated through the case law of the European Court of Human Rights. This concept implies that States are not only obliged not to interfere unlawfully with individuals' rights, but must also take active, organized, and effective measures to ensure the practical realization of these rights. In the field of prisons and detention, this obligation takes on a particularly strong character. The State has the obligation to ensure that persons deprived of their liberty are treated in accordance with minimum standards of human dignity. This includes not only the prohibition of inhuman treatment but also the creation of institutional conditions that enable its avoidance. Positive obligations also include the obligation to organize the penal system effectively. This means that the state must structure its legislation and judicial practice to avoid overcrowding, use alternative measures to detention, accelerate criminal proceedings, and pursue a proportionate and balanced penal policy. The European Court of Human Rights has stressed that these obligations are not theoretical, but practical and measurable. Therefore, the existence of laws on paper is not enough; they must be effectively implemented in practice.

3.1.3 Overpopulation as a structural and not occasional violation of the Convention

It is crucial to note that the European Court of Human Rights has consistently viewed overcrowding as a structural issue arising from systemic failures rather than isolated problems. For example, overcrowding leads to various health hazards such as diseases, mental disorders, and violence (MacDonald, 2019), in addition to posing a threat to prison personnel due to stress, infections, and physical assaults (World Prison Brief). Nevertheless, there are also plenty of cases of mental health issues developing after periods of isolation; in particular, many cases of suicide and self-harm have been reported.

However, the issue of overcrowding has demonstrated its significance as one of the serious challenges concerning prisoners' welfare and safety in correctional institutions. Indeed,

according to statistics, 22 prison systems worldwide exceed their capacity, while several countries have twice as many prisoners as they can accommodate, and another 27 have prisons at 150-200% capacity (Okoli, 2024). Overcrowding means lack of hygiene, poor safety and rehabilitation, which leads to a loss of human dignity and increasing recidivism rates. In addition, overcrowding among prison officers is likely to decrease their performance and the effectiveness of prisoner rehabilitation (Okoli, 2024). It should also be noted that according to Article 3. Therefore, regardless of whether any deliberate harm is inflicted on prisoners, state authorities are responsible for preventing such situations.

3.1.4 The structural dimension of positive obligations and the connection with penal policies

The positive obligations of the State in the field of the penitentiary system aren't isolated from general penal policies and the functioning of the justice system. Prison overcrowding is often the result of a combination of factors, including the extensive use of pre-trial detention, the lack of alternative measures, delays in judicial proceedings, and a more punitive than rehabilitative approach to crime. In this sense, the State's responsibility is of a structural nature. It is not limited to addressing existing conditions in prisons but also extends to the way the penal system is organized. This includes the obligation to develop policies that reduce reliance on pre-trial detention, to strengthen the use of alternative measures, and to guarantee an efficient and speedy judicial system. In this regard, European standards require a preventive approach rather than a reactive one. The State must anticipate and prevent situations that could lead to overcrowding by acting proactively and coordinating among justice institutions, penal policy, and prison administration.

3.2 Prison arrests and overcrowding during the years 2019-2025

3.2.1 Appointment of a prison sentence

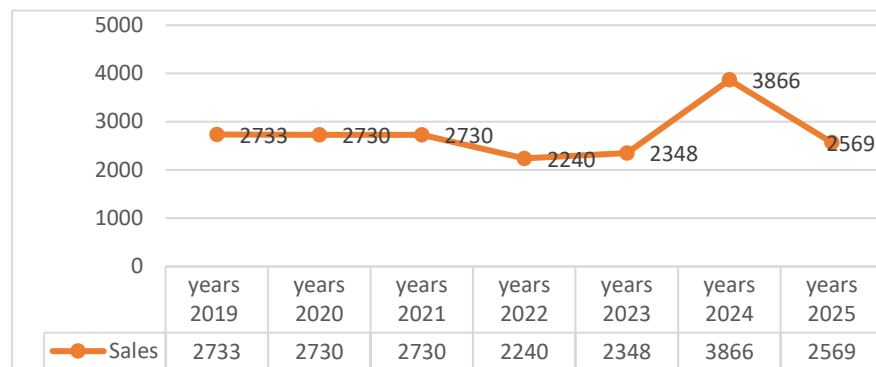
Various legislative and judicial factors determine the imposition of imprisonment in Albania. This way, imprisonment plays a key role in criminal proceedings in Albania, thereby increasing pre-trial detention numbers and leading to prison overcrowding.

In this context, the law provides for three main situations that may justify the imposition of a security measure:

- i. The significant reasons indicating that the defendant may influence the obtaining or truthfulness of evidence.
- ii. The risk that the defendant will flee or evade justice.
- iii. The existence of the risk of committing other criminal offenses, especially of a serious nature or similar to the one for which the proceedings are being conducted, when it is concluded from the specific circumstances of the case and the character of the defendant.

The data in Figure 1 show that imprisonment did not remain constant throughout the period under review but fluctuated in response to specific developments. These increases in the imprisonment rate may be explained by the perception within the judicial system that the punishment under discussion is an appropriate means to ensure the criminal process, especially in its preliminary stages. Moreover, the fluctuations observed in 2023 and 2024 also show that, besides laws, court practice plays a critical role in achieving a definite outcome. In this regard, imprisonment depends not only on laws but also on legal culture.

Figure 1. Appointment of prison sentences during the years 2019 – 2025



Source: These data are taken from the Ministry of Justice's annual statistics:
<https://www.drejtesia.gov.al/statistika>

The statistics presented above extract these two crucial elements:

First, the influence of prosecution evidence: The courts tend to consider evidence from state investigation organs without conducting any further detailed analysis; therefore, evidence provided by a single party is deemed wholly reliable. At the same time, the defendants lack sufficient resources and access to adequate legal aid to provide counterevidence (European Commission, 2020).

Second, safeguards in the application of Article 228(3) of the Criminal Procedure Code include not only the existence of reasonable suspicion but also the occurrence of certain circumstances, such as ensuring the proper course of proceedings or preventing interference with justice, as prerequisites for arrest.

The examination of the case law shows that one of the most frequent problems concerns how the courts justify these circumstances. A considerable number of decisions rely on standard formulations regarding the existence of a “risk of departure” or a “risk of committing another criminal offense”. In some cases, these circumstances are mentioned in the decision without a concrete analysis of the facts or reliance on specific elements of the defendant's individual situation. In this way, the reasoning of the decision often remains at a general level and is not always based on verifiable circumstances of the case. In some cases, the argumentation may even take on a prejudicial character, relying more on general assumptions than on concrete data that justify the real existence of these risks. Such a situation may lead to the imposition of more severe personal security measures, such as imprisonment, without a full analysis of their necessity and proportionality (European Commission, 2020).

Illustrative example no. 1: In one of the decisions, the court, for the criminal offense of “theft”, provided for by article 134(1) of the Criminal Code, stated that: “...18. For the Court, the measure selected (arrest) by the prosecution, as provided for by article 238 of the Criminal Code, is consistent with the aforementioned legal conditions, with the high risk of the person under investigation, the type and extent of the punishment provided for by the criminal law for the criminal offense, up to the preliminary investigation phase” (Court of First Instance of General Jurisdiction of Durrës, Decision No. 601/2026). This case concerns the criminal offense of stealing a mobile phone valued at approximately 20,000 Albanian lek. However, despite the relatively minor nature of the criminal offense and the fact that the main evidence (the seized item, the video footage, and the witness statements) had been administered at the initial stage of the investigation, the security measure “prison arrest” was requested and imposed on the person under investigation. In this context, it is not understood why the

Prosecution requested, and the Court imposed, the measure of security arrest in prison, when, in the meantime, a good part of the evidence was collected in the first 48 hours, with no risk of contamination of the evidence or witnesses. Regarding suspicion of, or fear of, the suspect's escape, the Court could very well impose house arrest or a ban on movement abroad using biometric means.

Illustrative example no. 2: In one of its decisions concerning the criminal offenses of “Smuggling of other goods” under Article 174 of the Criminal Code and “Storage or deposit of contraband goods” under Article 179, the Court reasoned as follows: The Court held that it was impossible to find any alternative security measure to satisfy the situation's security requirements. In view of the manner in which the accused committed the crime, the Court held that any alternative to incarceration would result in conditions in which the same kind of criminal conduct could continue unabated. Specifically, the decision notes that no other method would ensure that the accused does not meet those involved in facilitating the criminal act. Although the defense requested a milder measure, such as house arrest, the Court found that it would not serve the fundamental purpose of security measures, namely, preventing reoffending. In principle, the criterion outlined in Article 228(2)(c) of the Criminal Procedure Code, the risk of committing a criminal offense of the same type, was decisive in determining the appropriate measure. In this case, the Court interpreted Article 228(2)(c) in close connection with Article 229(2), considering the specific circumstances of the proceedings. On this basis, the Court held that only the “Arrest in prison” measure provided for in Article 238 of the Criminal Procedure Code could effectively address the identified risks. The Court therefore concluded that the imposition of imprisonment was both proportionate and justified (Court of First Instance of General Jurisdiction of Elbasan, Decision No. 13-2023-3681/2026). In this case, the arrested person was sentenced to imprisonment for smuggling calves (cattle) into Albania from neighboring North Macedonia. For this reason, this Court emphasizes in its reasoning that the arrested suspect may repeat the same criminal offense, since the examination of his mobile phone revealed communications with a North Macedonian citizen for the purchase of cattle, and that he had previously been convicted (the analysis of the decision does not indicate for what criminal offense he had previously been convicted).

In summary, without prejudging the Courts' decisions, the examination of the two illustrative cases above highlights that Albanian courts accept a high percentage of prosecution requests to impose the measure “prison arrest” a priori, without fully analyzing whether the legal conditions of necessity and proportionality are met. This shows a formal approach to individual freedom and a lack of sensitivity to the problem of overcrowding. Instead of assessing each case individually, courts often reason in a standard manner, referring to the “dangerousness of the criminal offense” or the “importance of the investigation”, without specifically analyzing the defendant's profile (Matlija, 2025). The analysis of these decisions shows that courts rarely provide concrete reasons for declining to apply alternative security measures. In most cases, the reasoning focuses solely on justifying the imposition of the most severe measure, that of prison arrest, which violates the ECHR's reasoning standards (*Buzajdi v. Moldova* 2016). In this way, imprisonment is transformed from an extraordinary measure (*extrema ratio*) into a predetermined solution, directly provoking overcrowding in penitentiaries.

The above examples, as well as the detailed analysis of a series of court decisions on the imposition of imprisonment (Court of First Instance of General Jurisdiction of Elbasan, Decision No. 13-2026-960/2026, pg. 64) show that the Courts deviate from the decisions of the Supreme Court, the Constitutional Court, and the ECHR, as they often rely solely on the margin of the conviction suspected and not on the conditions and criteria of imposing the security measures (European Commission, 2020).

Another aspect of the security measure of arrest in prison is the provision in Article 246(6) of the Criminal Procedure Code, which was partially amended in 2017 (Criminal Procedure Code

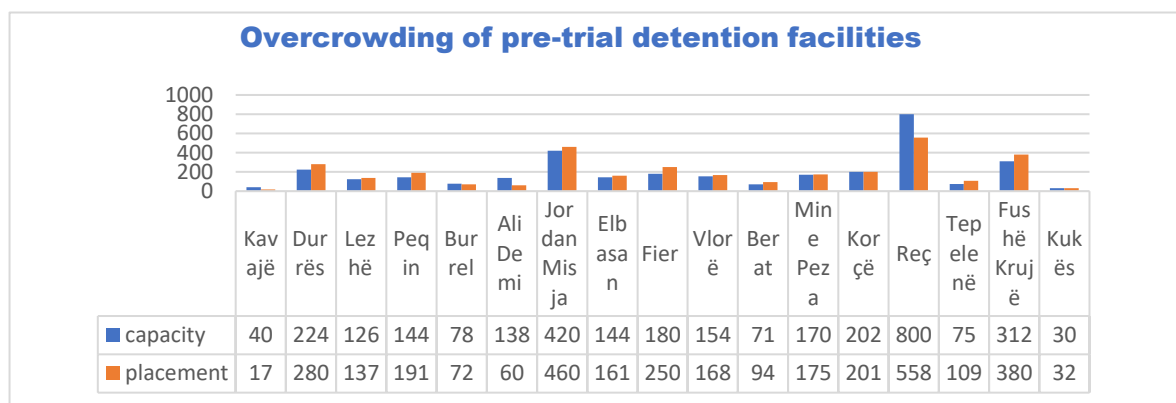
of the Republic of Albania, 1995). This Article provides that, every two months after an arrest warrant is issued, the prosecutor must report to the court on investigative measures and security needs, including the progress of the proceedings, questioning, and evidence collected, and provide copies of relevant acts. If the prosecutor fails to report within the deadline, the court reviews the security needs either at the defendant’s request or ex officio. After hearing the parties, the court may continue, replace, or revoke the measure. Although this provision aims to guarantee periodic and effective oversight of the continued detention in prison, in practice, this mechanism is not always applied substantively. In many cases, the prosecutor’s information continues formal. It is not accompanied by a detailed analysis of the progress of the investigations or the real need for the measure’s continuation. As a result, the court often limits itself to a general reassessment, thereby prolonging the detention without a full and individualized examination of the legal conditions.

Such a practice conflicts with the standards established by the European Court of Human Rights, which has consistently emphasized that, in certain cases, the importance of a criminal offense and the concern it causes in society may justify detention, but only for a limited period and if supported by concrete circumstances (§51). The Court has emphasized that the continuation of detention must be based on facts that demonstrate a risk to public order. On the contrary, relying solely on the seriousness of the criminal offense is an insufficient justification and conflicts with Article 5 of the Convention (Letiller v. France, 1991). In this context, the lack of effective control over the implementation of Article 246(6) of the Code of Criminal Procedure results in the unnecessary prolongation of prison detention, thereby increasing the number of persons in pre-trial detention. Consequently, when not properly applied in practice, this provision may directly contribute to overcrowding in Albania’s penitentiary institutions. This entire position is, in fact, confirmed by the case of Delijorgji v. Albania.

3.2.2 Key indicators of overpopulation

According to the report of the General Directorate of Prisons, its capacity does not exceed; however, the audit findings show differences between the official and actual figures. Thus, the reasons for overcrowding, such as a large percentage of pre-trial detainees and prison arrests intended to ensure safety in the judicial process, indicate a lack of proportionality.

Figure 2. Overcrowding of pre-trial detention facilities



Source: Data from the Albanian Supreme Audit Institution's audit report.

[Final-audit-report-Performance-of-the-Detention-Service.pdf](#)

Figure 2 shows that there are exceptions in which several institutions, such as Kavajë Juvenile, Reç, Elbasan, and Ali Demi, are operating below their accommodation capacity. On the other hand, institutions such as Burrel, Kukës, and Korçë already operate near capacity, whereas most other institutions experience overcrowding, with detainee numbers exceeding their accommodation capacity. In particular, this situation requires placing 4 to 10 people in one room, making it difficult to ensure adequate living conditions.

The consequences of overcrowding include serious deficiencies in prisoners' conditions of detention that violate minimum accommodation standards. First of all, one may note the inability of Durrës and Kukës to provide beds for prisoners due to a lack of sleeping places, forcing the detainees to sleep on the floor, using blankets. Another case is the presence of dangerous three-deck beds at Lezha that do not comply with national or international standards. Fushë-Krujë provides another example of the consequences of overcrowding when nursing facilities are used for accommodation.

These practices not only hinder the normal functioning of the health service within the institution but, in certain cases, also render these facilities unusable for their intended purpose. However, the high number of pre-trial detainees and the overcrowding of penitentiary institutions may also be related to the relatively frequent use of the security measure “prison arrest” in judicial practice, thereby raising questions about the real implementation of the principle of proportionality.

Albania records a relatively high imprisonment rate—192 prisoners per 100,000 inhabitants—placing it above neighboring Balkan countries and causing systemic overcrowding (Aebi & Cocc, 2024). Although women represent only 1.4% of detainees, the overall prison population increased by 7.5% in the last year, further intensifying pressure on institutions. These trends suggest that overcrowding is not only a statistical reality but also a structural challenge that weakens the functioning of the justice system.

The European Integration Commission identified numerous issues with the current state of the penal system in Albania, particularly its ability to cope with increasing volumes of criminal proceedings and to maintain conformity to international due process standards. One of the major issues relates to the fact that as much as 58% of prisoners held in correctional facilities await final verdicts. Such statistics place Albania amongst the countries with the highest rates of pre-trial detention in Europe. In addition, according to the Council of Europe, such circumstances are relevant to the protection of basic human rights. Consequently, the data provided above indicate that prison overcrowding and pre-trial detention are serious problems for the Albanian penal system (Council of Europe, 2025).

In addition, the Supreme State Audit identified differences between official statistics and field data, proving that many correctional institutions work at full capacity due to excessive numbers of inmates who have yet to be tried for the crimes committed.

3.2.3 Population structure in the penitentiary in relation to convicts

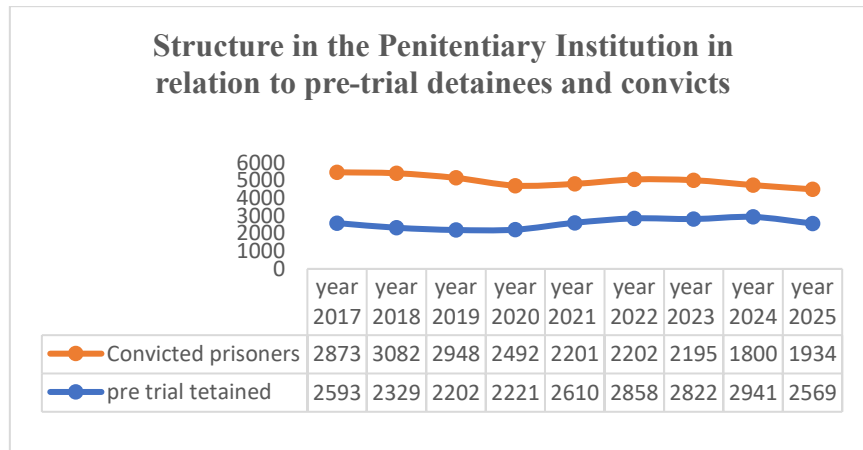
As shown in Figure 3, one major contradiction arising from the judicial reform is that, even though it is stipulated that judges should resort to imprisonment only as a last resort, in reality, it seems to be the most preferred option. In 2023, the number of pre-trial detainees in Albania was 2,510, which is the same as in 2017. This means that for seven years, despite legal changes and the vetting of magistrates, the mentality of our courts has remained the same.

Another problematic aspect of pre-trial imprisonment is the changing composition of prison populations. In 2017, the numbers showed that there were more convicted people than pre-trial prisoners. At the current moment, 50% of inmates in prisons are pre-trial detainees (2,510 vs. 2,310 convicted), which contradicts the presumption of innocence.

Overcrowding worsens the lives of those imprisoned. Examples shown above in the prisons of Lezha and Fushë-Krujë are contrary to the principle of humanity and have turned the prisons

into a degrading environment. Under these conditions, the prison no longer resocializes anyone, but violates the presumption of innocence, and takes away any chance of humanity, thus making prisons not meet the requirements of the ECHR.

Figure 3. Structure in the Penitentiary Institution in relation to pre-trial detainees and convicts.



Source: Compiled by the author based on official data from the DPBSH website and official correspondence dated October 21, 2025. <https://dpbsh.gov.al/category/statistika/>

Prison overcrowding is a complex, multi-layered issue with legal, structural, and social aspects. While this paper does not seek to resolve it fully, the analysis shows that the problem extends beyond infrastructure to the functioning of the penal system and judicial practice. The aim here is to identify the main causes and to provide a basis for further research toward solutions aligned with the European Court of Human Rights' standard.

4. Conclusions and recommendations

4.1 Conclusions

From the above analysis, it follows that prison overcrowding in Albania is not simply an operational or infrastructural problem. However, a pronounced structural phenomenon is directly related to how the penal system functions and to judicial practice.

- First of all, it is evident that the extensive use of arrest in prisons, which occurs without proper examination of its necessity as well as appropriateness, results in an increase in the number of pretrial detainees. Judicial work is based on formal logic and formulaic language; therefore, exceptional remedy turns into a usual tool.
- Secondly, the high percentage of persons in pre-trial detention (around 58%) indicates a deviation from European standards, raising serious concerns about respect for the presumption of innocence and the right to personal liberty.
- Third, conditions in prisons often fail to meet minimum standards, with overcrowding, lack of space, and inadequate accommodation amounting to inhuman or degrading treatment.
- Finally, the Albanian state's responsibility is both preventive and reactive. Without tackling the systemic causes of overpopulation, persistent violations of Article 3 ECHR may occur, as the European Court of Human Rights has repeatedly emphasized.

4.2 Recommendations

- Limiting the use of the security measure “arrest in prison” should strengthen the application of the principle of proportionality and ensure that it is used only as a last resort. Courts should provide concrete and individualized justifications for each decision.
- Expanding the use of alternative measures is necessary to increase their use (General Prosecutor, 2024).
- Strengthening judicial control over the security measure “arrest in prison” by implementing Article 246(a) of the Criminal Procedure Code of the Republic of Albania should be carried out in a substantive manner.
- Acceleration of criminal proceedings and an increase in the capacities of the judicial system.
- Improving conditions in penitentiary institutions.
- Drafting penal policies with a focus on rehabilitation.
- Increasing transparency and using real data.

References

- Aebi, M. F. & Cocco, E. (2024). *Prisons and prisoners in Europe 2024: Key findings of the SPACE I survey*. University of Lausanne. https://wp.unil.ch/space/files/2025/07/250715_key-findings-space-i_prisons-europe-2024_full.pdf
- Albanian Helsinki Committee (AHC). (2020). *Study report on detention and personal security measures*. https://ahc.org.al/wp-content/uploads/2020/05/27-Maj_2020_Raport-Studimor_Per-Paraburgimin-dhe-masat-e-sigurimit-personal_KShH.pdf
- Aon, M., Oberkonz, S., & Brasholt, M. (2025). *The association between health and prison overcrowding: A scoping review*. *BMC Public Health*. <https://doi.org/10.1186/s12889-025-23340-9>
- Baggio, S., Heller, P., Stucki, S., Wolff, H., & Gétaz, L. (2020). *Do overcrowding and turnover cause violence in prison?* *Frontiers in Psychiatry*, 10, 1015. <https://doi.org/10.3389/fpsy.2019.01015>
- Buzadji v. Moldova [GC], no. 23755/07, ECHR (2016). <https://hudoc.echr.coe.int/eng?i=002-11101>
- Council of Europe. (2006). Recommendation Rec (2006)13 of the Committee of Ministers to member states on the use of remand in custody. <https://pjp-eu.coe.int/documents/41781569/42171329/CMRec+%282006%29+13+on+the+use+of+remand+in+custody%2C+the+conditions+in+which+it+takes+place+and+the+provision+of+safeguard+against+abuse.pdf/ccde55db-7aa4-4e11-90ba-38e4467efd7b>
- Court of First Instance of General Jurisdiction Durrës. (2026, February 6). Decision No. 11-2026-601 (Case no. 61005-00381-11-2026). <https://gjykata.gov.al/>
- Court of First Instance of General Jurisdiction Elbasan. (2023, December 7). Decision no. 13-2023-3681. <https://gjykata.gov.al/>
- Court of First Instance of General Jurisdiction Elbasan. (2026, February 27). Decision No. 13-2026-960. <https://gjykata.gov.al/>
- Criminal Procedure Code of the Republic of Albania. (2017). <https://qbz.gov.al/preview/b4819f4d-c246-49b3-87a9-2e6c8512c975>
- Deliorggi v. Albania, no. 6858/11, ECHR (2015). <https://hudoc.echr.coe.int/eng?i=001-153924>
- Drejtoria e Përgjithshme e Burgjeve. (n.d.). Statistika ndër vite. <https://dpbsh.gov.al/category/statistika/>
- European Convention on Human Rights. (1950). https://www.echr.coe.int/documents/d/echr/convention_sqi
- General Prosecutor's Office of the Republic of Albania. (2024). Annual crime report 2024. <https://www.pp.gov.al/>
- Kalashnikov v. Russia, no. 47095/99, ECHR (2002). <https://hudoc.echr.coe.int/eng?i=001-60606>
- Kudła v. Poland [GC], no. 30210/96, ECHR (2000). <https://hudoc.echr.coe.int/fre?i=001-58920>
- Letellier v. France, no. 12369/86, ECHR (1991). <https://hudoc.echr.coe.int/tur?i=001-57678>
- MacDonald, M. (2019). *Prison overcrowding*. *Birmingham City University Open Access Repository*. <https://www.open-access.bcu.ac.uk/6451/>

- Matlija, D. (2025). *Security measures in criminal proceedings: Proportionality and European standards for the restriction of freedom*. Albanian Legal Journal. <https://lawjournal.al/>
- Ministry of Justice. (2024). Statistical yearbooks (2012–2024). <https://www.drejtesia.gov.al/>
- Nudd, E., Aon, M., Kambanella, K., & Brasholt, M. (2024). *Overcrowding in prisons: Health and legal implications*. ResearchGate. https://www.researchgate.net/publication/387476208_Overcrowding_in_prisons_Health_and_legal_implications
- Okoli, C. F. (2024). *Beyond bars: Transformative strategies for reducing prison congestion in the United States of America*. International Journal of Innovative Science and Research Technology, 9 (4). <https://www.ijisrt.com/assets/upload/files/IJISRT24APR1746.pdf>
- Start Press. (2025). CoE report: 58% of detainees in Albania are in pre-trial detention. <https://start-press.eu/>
- Supreme State Audit Office (SSA). (2024). *Performance audit report: Performance of the detention service*. [Final-audit-report-Performance-of-the-Detention-Service.pdf](https://www.ssa.gov.al/assets/upload/files/SSA24APR1746.pdf)
- World Prison Brief. (n.d.). Albania | *World Prison Brief*. Institute for Crime & Justice Policy Research. <https://www.prisonstudies.org/country/albania>

BRIDGING THE DATA-CREDIT CHASM: A COMPARATIVE INSTITUTIONAL ANALYSIS OF FINTECH DATA UNDERUTILIZATION IN GHANA SME LENDING

Anaba PEACE

Abstract

Purpose: The recent proliferation of digital financial services in most emerging economies has led to an explosion in the digital data trail. However, the prevailing credit gap in SMEs is still a major concern. This study examines how the digital footprint of financial services is interpreted to deliver formal credit across different institutions. Drawing on institutional logics theory, we aim to identify the logics governing the use or non-use of DFS transaction data that facilitate SMEs' access to formal credit.

Methodology: We employed a qualitative lens, interviewing banks, fintech companies, telecommunications companies, and regulators to unravel the puzzle of institutional governing logics. We used NVivo for our data analysis.

Results: Despite the proliferation of DFS in most emerging markets, stakeholders are not fully leveraging DFS data to inform credit assessments or to expand access to formal credit.

Originality: Our findings contribute to the literature by highlighting gaps in institutional logics and suggesting the urgent need to rethink, unlearn, relearn, and adapt to the rapidly changing environment to meet market trends and consumer needs.

Keywords: Digital Financial Services, Transaction Data, Institutional Logics, Qualitative Methods, Emerging Economies.

Introduction

DFS refers to financial services accessed and delivered through digital channels, including savings, payments, investments, and lending. DFS is a multifaceted term that encompasses digital banking, mobile money, point-of-sale, and online payments. Recent empirical evidence shows that DFS promotes financial inclusion by enabling underserved and unserved populations to access and use digital financial products and services. Formal savings are rising, with increases in some regions driven by the convenience, accessibility, and affordability of mobile financial services, which allow people to make frequent, small-value savings deposits. As of 2024, 40 percent of adults in low- and middle-income economies held formal savings accounts (World Bank, 2025a). Mobile money and other digitally enabled accounts are driving this increase in formal savings (GSMA, 2024).

The growing demand for and use of digital financial services (DFS) have generated massive amounts of digital data for institutions, regulators, and businesses (Bazarbash & Beaton, 2020; Gąsiorkiewicz & Monkiewicz, 2023). Small and medium-sized enterprises (SMEs) using DFS generate transaction data, including customer payment history, bill payments, e-commerce transactions, and savings. This data provides insights into activity levels and product usage trends (AFI, 2025). Transaction value and volume reveal very different information about consumer behaviour. These transactions reflect varying levels of financial capacity, and different usage models may reveal different levels of risk. Transaction data has changed how financial institutions acquire, process, and use data in their operations (Caire et al., 2017).

From the supplier's perspective, these DFS transaction data serve as a basis for identifying and tracing users' transaction histories. From the user's perspective, the DFS transaction data enables informed decision-making and data-driven strategic analysis. If leveraged strategically,

this DFS transaction data could improve the structure of the financial ecosystem and provide real-time insights and trends. DFS transaction data have the potential to reshape institutional logics and the financial landscape, as they could be harnessed to improve consumer-centricity, providing a toolkit for institutions and governments to rethink their own logics (Thomas, 2023). However, a profound paradox characterizes the financial landscapes of many institutions. On the one hand, SME access to credit has been a major, consistent challenge for decades; no durable, sustainable solutions have been discovered, discussed, or implemented (Akinrinde et al., 2025; World Bank, 2025b). As of 2024, the SME finance gap stands at \$5.7 trillion, reaching about \$8 trillion, even excluding informal enterprises (International Finance Corporation, 2024). While there are calls to introduce initiatives to support SMEs, there is no real-time gain from these promises. Most SMEs have joined the digital trail by using digital financial services (Cali et al., 2021; World Bank, 2025a). In Sub-Saharan Africa, SMEs have joined the mobile money success story (IMF, 2025); in other regions, such as Latin America and the Caribbean, the adoption of mobile money is often combined with digital accounts at banks and similar financial institutions (GSMA, 2024). On the other hand, digital payments can unlock access to credit for small businesses by providing real-time records of cash flows that can support loan applications for capital (IMF, 2025; Thomas, 2023). This study examines whether the vast amount of DFS data translates into broader access to formal credit for SMEs. Most prior studies have overlooked how systemic forces govern how actors in the financial sector interpret value, assess risk, and determine legitimacy. This study argues that a clash of institutional logics fundamentally conditions the gap between data potential and credit reality, the rooted belief systems and rules of the game that guide behavior within the financial system. The conflict among the collateral-driven logic of traditional banks, the innovative logic of fintech companies, and the compliance-oriented logic of regulators generates frictions that determine whether digital financial services data is used, ignored, or questioned in credit assessments.

This study aims to address the gap in understanding how institutional logics and financial structures, including banks, FinTech firms, central banks, and telecommunications companies, shape the use of DFS transaction data in formal SME credit assessments. Many studies have examined SMEs' access to credit and the bureaucratic challenges involved (Akinrinde et al., 2025). However, limited attention has been given to the role of DFS transaction data in formal SME credit assessments. We address this issue by exploring how financial institutions and other relevant actors in Ghana interpret and use SME DFS transaction data for credit assessment, and under what conditions they choose to use or disregard this data. The study of this case reveals how the dominance, conflict, or overlap of institutional logics directly facilitates or hinders the transformation of digital data into formal credit.

Our results demonstrate that DFS data use is a product of a negotiated logic and a complex socio-political context. Successful integration relies not only on cutting-edge technologies but also on the capacity of ecosystem structures to align the underlying logics effectively. This research goes beyond adoption-focused studies to offer a new institutional perspective, providing concrete guidance for policymakers, financial institutions, and fintechs seeking to advance financial inclusion by transforming data abundance into tangible access to credit.

The study proceeds as follows: first, we synthesize the literature on DFS transaction data, the SME credit gap, and the financial ecosystem. Then we introduce institutional logics as our primary theoretical lens. Subsequently, we articulate the methodology, including the sampling approach, data collection, research participants, and the process and tools for data analysis. We present our results and provide an in-depth, engaging discussion. Lastly, we conclude by highlighting our theoretical, practical, and policy contributions to the literature, regulators, and institutions. We also outline the study's limitations and suggest future research.

2. Literature Review

This section examines the state of the literature on DFS transaction data and its potential for institutions to use in formal credit assessment for SMEs. Prior studies assert that digital financial services, including crowdfunding and peer-to-peer lending, facilitate access to credit and improve the efficiency of credit allocation, enabling businesses with limited capital to access finance for operations (Bani Atta, 2025; Saha & Satish, 2025). According to the IMF (2025), Fintech firms tend to provide credit to entrepreneurs who have limited access to traditional credit. In some developed economies, the latter have outperformed traditional financial institutions in terms of market share (World Bank, 2025a). Moreover, empirical evidence indicates that emerging data sources have the potential to positively impact financial inclusion (Caire et al., 2017). Digital payments and mobile money usage generate new data that could enable DFS providers to conduct more accurate risk assessments for previously excluded individuals who lack a formal financial history to support their credit applications (He et al., 2023).

2.1 The SME Credit-Gap

SMEs are widely recognized as engines of economic growth, job creation, and innovation, especially in developing countries (OECD, 2025; World Bank, 2025b). However, their potential is often constrained by limited access to credit (Akinrinde et al., 2025; World Bank, 2025b). Most prior studies indicate that the credit gap among SMEs is due to information asymmetries and high transaction costs (Li & Ali, 2025). Lenders view SMEs as high-risk businesses due to a lack of transparent documentation, poor bureaucratic procedures, and the absence of physical collateral (Khan et al., 2024; Njue & Mbogo, 2017). Traditional risk assessment models based on historical balance sheet data are inadequate for assessing these companies and can result in credit restrictions (AFI, 2025). Firms whose value lies in intangible assets face significant challenges in accessing credit compared to those with tangible assets (Demmou & Franco, 2021). The literature, therefore, clearly highlights the problem: a systemic failure to develop knowledge for lending to small and medium-sized enterprises within the traditional banking system (AFI, 2025).

2.2 The Digital Promise

The rise of digital financial services, including mobile money, digital payments, and online banking, has been argued as a transformative force in financial inclusion (Rehman et al., 2023; Ullah & Begum, 2025). A growing body of research examines the drivers of DFS adoption in small businesses, focusing on factors such as perceived usefulness, accessibility, and reduced transaction costs. Beyond transaction efficiency, DFS can provide additional data (Bazarbash & Beaton, 2020; Tigges et al., 2024). Every digital payment, transfer, or deposit creates a trusted record that can reveal the business's financial status, transaction volume, customers, and the financial health of its shareholders (Björkegren & Grissen, 2020; Sanga & Aziakpono, 2023). This data can be used, in particular, as digital collateral directly addressing the problem of information asymmetry (Bazarbash & Beaton, 2020; Hardik, 2024). The literature on fintech lending highlights its growing role in consumer lending and, to a lesser extent, in lending to SMEs in developed and emerging markets (Agarwal & Zhang, 2020; Claessens et al., 2018; Jagtiani & Lemieux, 2019). (He et al., 2023) found that Fintech can significantly reduce the risk of corporate debt default, and that high-tech firms experience a greater reduction in that risk.

2.3 The Disconnect between Credit Gap and DFS Data Explosion

Despite this potential, empirical evidence suggests that transforming DFS into credit for SMEs is not straightforward, especially in emerging markets. The research is divided: one side praises the timeliness of DFS (Bani Atta, 2025; Shaikh et al., 2023; Tigges et al., 2024), while the other laments the credit gap for SMEs (Shah & Al-Malkawi, 2024). Some studies explicitly examine the gap between the two (Agarwal & Zhang, 2020; Jagtiani & Lemieux, 2019). Others point to technological barriers, such as data processing, connectivity, and analysis capacity (Shah & Al-Malkawi, 2024). Others point to ethical and trust barriers among SMEs related to data privacy and creditworthiness (Munyagera & Matsumoto, 2016). However, these do not explain why, in ecosystems with high DFS ratios, such as Kenya, the credit gap for promising SMEs persists and why promising fintech credit examples struggle to scale up or integrate into the financial system. This highlights the industry's complexity at the firm and macro levels, which have not been considered in the existing literature on DFS and SME finance.

2.4 An Emerging Market Context

Ghana's DFS ecosystem varies widely; it encompasses various institutional players and related actors, creating fertile ground for debate and overlapping logics. It includes fintech firms, Telecoms, Banks, and Regulators. Its success stems from a unique combination of marketing, logistics, and user logic that prioritizes access through seamless banking integration (Burns, 2018; Ndung'u, 2018). While the literature highlights its success in payments, it also points to the slow development of richer, data-driven investment products (Ndung'u, 2018; Ngugi et al., 2010). Ghana is a more traditional, bank-based ecosystem, where fintech companies are often partners or service providers rather than disruptors. Regulatory and banking logics are increasingly intertwined, creating a range of barriers and opportunities for integrating data with digital financial services. Therefore, our research questions are as follows:

RQ1: How do Ghanaian SMEs perceive the utility of their DFS transaction data in securing formal credit, how do they select, prepare, and present this data, and what strategies do they employ to enhance its consideration by lenders and improve subsequent data practices?

RQ2: How do financial institutions in Ghana interpret DFS transaction data, and at which specific stages of the SME credit assessment process do they assign decision-making weight to the data, and under what conditions is this data prioritized, discounted, or excluded?

RQ3: What institutional logics underpin financial institutions' approaches to integrating DFS transaction data into SME credit assessment in Ghana, and how do these logics contest or override the signals generated by this data? Are these logics manifested, negotiated, or contested in everyday lending practices, and what specific counter-evidence or heuristics trigger these moves?

RQ4: How do alignments and tensions between DFS transaction data and the dominant institutional logics of credit assessment influence its integration into lending decisions for Ghanaian SMEs? Where do institutional logics become visible in the everyday work of SME credit assessment in Ghana, and how do these artifacts and interactions shape whether DFS transaction data is treated as decisive, auxiliary, or inadmissible?

3. Theoretical Framework

Institutional logics theory has been identified as a prominent theoretical framework in organizational studies. The concept of institutional logics was first introduced as an initiative to “bring society back in” to institutional analysis (Friedland & Alford, 1991). It begins by identifying the tensions and relationships among different logics (Bohn & Gümüşay, 2024). Organizational norms are historical patterns of social and instrumental behavior, norms, rules, beliefs, and laws that govern organizational and individual behavior in a particular context.

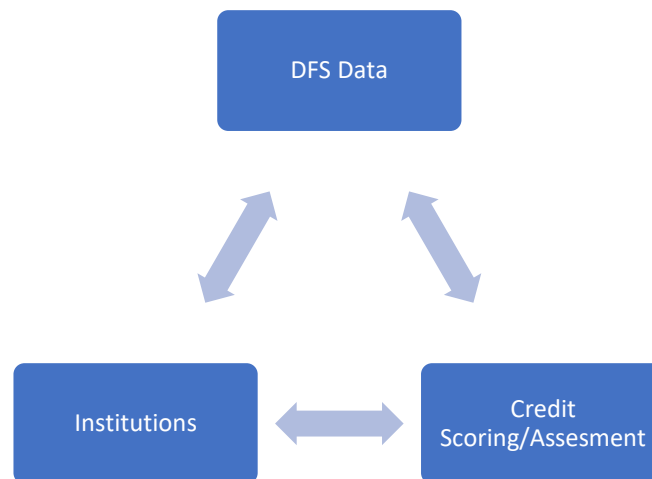
This theory posits that society comprises a number of competing models of organization, each with its own underlying principles (Thornton et al., 2015). The financial sector is a prime example of such conflicts (Lounsbury, 2007). Research identifies several principles, including traditional banking norms, which emphasize contractual agreements, standard risk models, regulatory compliance, and self-regulation, fintech regulation, which focuses on disruption, innovation, and expansion, and values algorithmic analysis, real-time data, user-centered design, and abstraction and data as a valuable asset and commodity. Procedures focus on system integrity, user protection, and compliance, enforced through laws, regulations, and oversight. Data can be viewed through the lenses of privacy, security, and data requirements. The literature on fintech and the banking sector has begun to use this lens to explore how new entrants challenge established mindsets. However, few studies have addressed the specific question of data use in lending within the mainstream organizational context of the emerging Sub-Saharan Africa financial system.

Research Gap

The literature identifies 1) a clear gap in SME finance due to information constraints, 2) the conceptual potential of DFS data to bridge this gap, and 3) a clear failure to fully realize this potential. While research at the institutional level is extensive, there is a critical conceptual gap in understanding the institutional and systemic barriers to data use. Institutional frameworks provide a powerful tool for examining these barriers. However, they have not been systematically applied to the question of how competitive patterns in national financial environments facilitate or hinder the use of DFS data for SME credit analysis.

Therefore, this study identifies the need for a comparative, argumentative study to answer the research question above. This study will go beyond descriptive analysis and explain the political economy of financial data, providing findings with broad theoretical, policy, and practical implications.

Figure 1. Conceptual framework



4. Methodology

This study employs a qualitative, comparative case study design grounded in an inductive approach. Given the research question, which focuses on how and why institutional logics shape complex social phenomena in their real-world contexts, a qualitative approach is most appropriate (Tomaszewski et al., 2020; Yin, 2016). The comparative institutional logic study strategy enables an in-depth exploration of the unique configurations of logics and structures

within each institution, while also supporting a cross-sectional analysis of cases to identify patterns, variations, and theoretical perspectives. The goal is to understand the multiple realities and meaning-making processes of regulators, bankers, fintech companies, and SMEs.

4.1 Sampling

The study used a purposive, theoretically guided case selection strategy to maximize analytical impact. The sample comprised various institutions and SMEs, selected as critical cases that represent different financial ecosystems in Ghana and thereby reflect both the demand and supply perspectives of DFS. The snowball technique was adopted to complement the initial purposive sampling.

4.2 Data Collection

Data was collected from multiple sources, including mobile network operators, banks, fintech firms, and central banks in Ghana. Additional data, such as reports and third-party data, was used to ensure triangulation and build a robust, multi-level understanding. The study used semi-structured interviews, totalling approximately 60. Each interview lasted between 45 minutes to an hour.

4.3 Data Analysis

The analysis was iterative, moving from data to theory through both internal-country case and cross-case strategies. We begin with internal case analysis. We used NVivo to code interview transcripts and other relevant documents from each institution. The initial descriptive coding will capture themes, and the subsequent thematic coding will focus on the institutional logic perspective. The codes will identify expressions of institutional logic. The logical configurations of each institution were mapped, categorizing which logics are dominant and how they conflict, coexist, and integrate. In the second stage, we will conduct a comparative case-by-case analysis across institutions to identify any existing relationships.

4.4 Ethical Considerations

First, we sought Institutional Review Board approval for the study and obtained informed consent from all participants to ensure anonymity and confidentiality.

References

- AfI. (2025). *AlternAtive DATafor CreDit SCoring* (p. 36). Alliance for financial inclusion. <https://www.afi-global.org/wp-content/uploads/2025/02/Alternative-Data-for-Credit-Scoring.pdf>
- Agarwal, S., & Zhang, J. (2020). FinTech, Lending and Payment Innovation: A Review. *Asia-Pacific Journal of Financial Studies*, 49(3), 353–367. <https://doi.org/10.1111/ajfs.12294>
- Akinrinde, I. J., Adelakun, O. J., Okogor, K. C., & Jerome-Ukaoke, E. (2025). SME Prospects for Nigeria's Economic Growth and Unemployment Reduction. In B. Irene, J. Lockyer, & J. Okrah (Eds.), *The Palgrave Handbook of Decolonising Entrepreneurship* (pp. 497–543). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-92310-4_19
- Bani Atta, A. A. (2025). Financial technology platforms and enhancing SME financing in Jordan. *Discover Sustainability*, 6(1), 568. <https://doi.org/10.1007/s43621-025-01345-z>
- Bazarbash, M., & Beaton, K. (2020). Filling the Gap: Digital Credit and Financial Inclusion. *IMF Working Papers*, 20(150). <https://doi.org/10.5089/9781513552477.001>
- Björkegren, D., & Grissen, D. (2020). Behavior Revealed in Mobile Phone Usage Predicts Credit Repayment. *The World Bank Economic Review*, 34(3), 618–634. <https://doi.org/10.1093/wber/lhz006>
- Bohn, S., & Gümüşay, A. A. (2024). Growing Institutional Complexity and Field Transition: Towards Constellation Complexity in the German Energy Field. *Journal of Management Studies*, 61(7), 3184–3225. <https://doi.org/10.1111/joms.13004>
- Burns, S. (2018). M-Pesa and the ‘Market-Led’ Approach to Financial Inclusion. *Economic Affairs*, 38(3), 406–421. <https://doi.org/10.1111/ecaf.12321>

- Caire, D., CAMICIOTTI, L., HEITMANN, S., LONIE, S., RACCA, C., RAMJI, M., & XU, Q. (2017). *DATA ANALYTICS AND DIGITAL FINANCIAL SERVICES*. International finance corporation. <https://www.ifc.org/content/dam/ifc/doc/mgrt/ifc-data-analytics-and-digital-financial-services-handbook.pdf>
- Cali, C., Wollny, L., Minsat, A., Martin, E. S., & Bank, E. I. (2021). *Digital financial services* (FINANCE IN AFRICA, pp. 85–104). European Investment Bank. <https://www.jstor.org/stable/resrep52663.8>
- CBN. (2022). *Fintech evolution and development in Nigeria: Lessons from other jurisdictions* (No. 76; p. 80). Central Bank of Nigeria. <https://www.cbn.gov.ng/Out/2023/RSD/OCCASIONAL%20PAPER%20NO%2076%20-%20Fintech%20Evolution%20and%20Development%20in%20Nigeria.pdf>
- Claessens, S., Frost, J., Turner, G., & Zhu, F. (2018). *Fintech Credit Markets Around the World: Size, Drivers and Policy Issues* (SSRN Scholarly Paper No. 3288096). Social Science Research Network. <https://papers.ssrn.com/abstract=3288096>
- Demmou, L., & Franco, G. (2021). *Mind the financing gap: Enhancing the contribution of intangible assets to productivity*. 1681, 0_1,3,6-62. <https://doi.org/10.1787/7aefd0d9-en>
- Friedland, R., & Alford, R. (1991). *Bringing Society Back In: Symbols, Practices, and Institutional Contradictions*.
- Gąsiorkiewicz, L., & Monkiewicz, J. (2023). *Digital Finance and the Future of the Global Financial System*.
- GSMA. (2024). *The State of the Industry Report on Mobile Money* (p. 96). https://www.gsma.com/sotir/wp-content/uploads/2024/03/GSMA-SOTIR-2024_Report.pdf#page=12.11
- Hardik, N. (2024). Digitalisation promotes adoption of soft information in SME credit evaluation: The case of Indian banks. *Digital Finance*, 6(1), 23–54. <https://doi.org/10.1007/s42521-023-00078-w>
- He, C., Geng, X., Tan, C., & Guo, R. (2023). Fintech and corporate debt default risk: Influencing mechanisms and heterogeneity. *Journal of Business Research*, 164, 113923. <https://doi.org/10.1016/j.jbusres.2023.113923>
- IMF. (2025, October 29). *Press Release – IMF Releases the 2025 Financial Access Survey Results*. IMF. <https://www.imf.org/en/news/articles/2025/10/29/pr-25351-imf-releases-the-2025-financial-access-survey-results>
- International Finance Corporation. (2024). *MSME Finance* [Text/HTML]. IFC. <https://www.ifc.org/en/what-we-do/sector-expertise/financial-institutions/msme-finance>
- Jagtiani, J., & Lemieux, C. (2019). The roles of alternative data and machine learning in fintech lending: Evidence from the LendingClub consumer platform. *Financial Management*, 48(4), 1009–1029. <https://doi.org/10.1111/fima.12295>
- Khan, W., Nisar, Q. A., Bilal, A. R., Yardimci, B., & Elahi, A. R. (2024). Empirical Nexus Between Firm Characteristics, Market Characteristics, Financial Delinquency, and Its Analogy to Access to Finance for SMEs. *Journal of the Knowledge Economy*, 15(4), 17407–17435. <https://doi.org/10.1007/s13132-024-01836-w>
- Li, T., & Ali, M. K. M. (2025). A knowledge-informed neural network integrating fuzzy AHP and PCA for SME credit risk assessment. *Scientific Reports*, 15(1), 37695. <https://doi.org/10.1038/s41598-025-21441-4>
- Lounsbury, M. (2007). A Tale of Two Cities: Competing Logics and Practice Variation in the Professionalizing of Mutual Funds. *Academy of Management Journal*, 50(2), 289–307. <https://doi.org/10.5465/amj.2007.24634436>
- Ndung'u, N. (2018). The M-Pesa Technological Revolution for Financial Services in Kenya: A Platform for Financial Inclusion. In *Handbook of Blockchain, Digital Finance, and Inclusion, Volume 1* (pp. 37–56). Academic Press. <https://doi.org/10.1016/B978-0-12-810441-5.00003-8>
- Ndung'u, N. (2021). *A Digital Financial Services Revolution in Kenya: The M-Pesa Case Study*.
- Ngugi, B., Pelowski, M., & Ogembo, J. G. (2010). M-pesa: A Case Study of the Critical Early Adopters' Role in the Rapid Adoption of Mobile Money Banking in Kenya. *THE ELECTRONIC JOURNAL OF INFORMATION SYSTEMS IN DEVELOPING COUNTRIES*, 43(1), 1–16. <https://doi.org/10.1002/j.1681-4835.2010.tb00307.x>
- Njue, M. N., & Mbogo, M. (2017). FACTORS HINDERING SMES FROM ACCESSING THE FINANCIAL PRODUCTS OFFERED BY BANKS. *International Journal of Finance*, 2(3), 67–85. <https://doi.org/10.47941/ijf.103>
- OECD. (2025). *SME financing, business conditions and growth*. OECD. <https://www.oecd.org/en/topics/sme-financing-business-conditions-and-growth.html>
- Okekenwa, I. (2025). *Legal Challenges and Opportunities in Nigeria's Fintech Sector* (SSRN Scholarly Paper No. 5228794). Social Science Research Network. <https://doi.org/10.2139/ssrn.5228794>
- Okoh, J. I., Stephen, O., Afrogha, O. O., & Adamu, M. A. (2025). Challenges of Financial Technology (FINTECH) Innovations of Small Enterprises in South-West, Nigeria. *NIU Journal of Social Sciences*, 11(1), 207–216. <https://doi.org/10.58709/niujss.v11i1.2089>

- PWC. (2020). *Changing competitive landscape* (p. 20). PWC. <https://www.pwc.com/ng/en/assets/pdf/fintech-banking-sector-nigeria.pdf>
- Rehman, S. U., Al-Shaikh, M., Washington, P. B., Lee, E., Song, Z., Abu-AlSondos, I. A., Shehadeh, M., & Allahham, M. (2023). FinTech Adoption in SMEs and Bank Credit Supplies: A Study on Manufacturing SMEs. *Economies*, 11(8), 213. <https://doi.org/10.3390/economies11080213>
- Saha, A., & Satish, M. (2025). *Role of Fintech in Enhancing Financial Inclusion for MSMEs: A Cross-Country Analysis Using Secondary Data*. 15, 28–34.
- Sanga, B., & Aziakpono, M. (2023). FinTech and SMEs financing: A systematic literature review and bibliometric analysis. *Digital Business*, 3(2), 100067. <https://doi.org/10.1016/j.digbus.2023.100067>
- Shah, S., & Al-Malkawi, H.-A. (2024). Exploring Determining Factors for SMEs' Access to Alternative Financing Through the Technology-Organization-Environment (TOE) Framework. In A. Olanrewaju & S. Bruno (Eds.), *Advancements in Architectural, Engineering, and Construction Research and Practice* (pp. 183–192). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-59329-1_15
- Shaikh, A. A., Glavee-Geo, R., Karjaluto, H., & Hinson, R. E. (2023). Mobile money as a driver of digital financial inclusion. *Technological Forecasting and Social Change*, 186, 122158. <https://doi.org/10.1016/j.techfore.2022.122158>
- Thomas, N. M. (2023). Modeling key enablers influencing FinTechs offering SME credit services: A multi-stakeholder perspective. *Electronic Markets*, 33(1), 18. <https://doi.org/10.1007/s12525-023-00627-6>
- Thornton, P. H., Ocasio, W., & Lounsbury, M. (2015). The Institutional Logics Perspective. *Emerging Trends in the Social and Behavioral Sciences*. <https://doi.org/10.1002/9781118900772.etrds0187>
- Tigges, M., Mestwerdt, S., Tschirner, S., & Mauer, R. (2024). Who gets the money? A qualitative analysis of fintech lending and credit scoring through the adoption of AI and alternative data. *Technological Forecasting and Social Change*, 205, 123491. <https://doi.org/10.1016/j.techfore.2024.123491>
- Tomaszewski, L. E., Zarestky, J., & Gonzalez, E. (2020). Planning Qualitative Research: Design and Decision Making for New Researchers. *International Journal of Qualitative Methods*, 19, 1609406920967174. <https://doi.org/10.1177/1609406920967174>
- Ullah, S., & Begum, M. (2025). FinTech and financial sustainability: A mediating role of financial inclusion. *Technological Forecasting and Social Change*, 217, 124129. <https://doi.org/10.1016/j.techfore.2025.124129>
- World Bank. (2025a). *The Global Findex Database 2025*. World Bank. <https://www.worldbank.org/en/publication/globalfindex>
- World Bank. (2025b, October 7). *World Bank SME Finance* [Text/HTML]. World Bank. <https://www.worldbank.org/en/topic/smefinance>
- Yin. (2016). *Yin 2015 Qualitative research from start to finish [PDF] | Online Book Share*. <https://epage.pub/doc/yin-2015-qualitative-research-from-start-to-finish-ynqzqe4n5y>

MYTH VS. EVIDENCE: DO PUBLIC ECONOMICS FACULTIES IN ALBANIA ALIGN BETTER WITH 2030 LABOUR-MARKET SKILLS? BENCHMARKING CURRICULA WITH A CURRICULUM MARKET ALIGNMENT INDEX (CMAI)

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Abstract

This paper tests a common claim in Albanian higher education: that public economics-family faculties are better aligned with emerging labour-market needs than private providers. Using a document-based curriculum benchmarking design, the study codes 14 bachelor programmes from six Albanian institutions against an eight-cluster 2030 skills benchmark and computes a Curriculum Market Alignment Index (CMAI) from published programme plans, module titles, ECTS structures, and explicit practice elements. The results do not support public-sector superiority. The public-sector mean CMAI is 5.54, compared with 5.99 for the private sector, and every private programme in the core sample scores above every public programme. The main pattern is not ownership per se but curriculum design: private programmes are stronger in applied analytics and tooling, while both sectors remain heavily dependent on disciplinary core content and show major gaps in cyber/digital risk and sustainability/ESG. The paper contributes a transparent, low-cost method for curriculum alignment testing in data-constrained systems and identifies a minimum intervention package centred on compulsory analytics, digital-risk coverage, applied capstones, and ESG mainstreaming.

Keywords: Curriculum Benchmarking, Curriculum Mapping, Labour-Market Alignment, Employability, Economics Education, Albania, 2030 Skills, CMAI

Introduction

Across Albania, discussions about the relevance of finance and business administration curricula often rely on reputational shortcuts. Public faculties are frequently assumed to be more market-oriented because they are larger, older and perceived as academically stronger. This type of shortcut on how reputations are built, is part of a larger systemic problem. While private institutions are often perceived as offering higher quality in specific vocational areas, public universities are still considered the benchmark for 'academic depth' despite a recognized national need to prevent brain drain through modernized curricula (Partners Albania, 2023). However, market orientation is not a name assigned to an institution; it is an observable feature

of curriculum design. It can be explored by looking at what abilities are prioritised, whether future-facing competencies are required rather than optional, and whether learning is demonstrated by practical outputs rather than theory-only assessment.

This question matters because the labour market is changing faster than many degree structures. This urgency is underscored by the rapid massification of higher education in Albania and the Western Balkans, where the expansion of student numbers has often outpaced the evolution of curriculum alignment, leading to a persistent mismatch between graduate skills and market demands (Sokoli et al., 2025). This structural mismatch is further compounded by the accelerating automation of routine tasks, which is progressively displacing the competencies that traditional economics curricula have historically prioritised (Autor, 2015). According to the World Economic Forum (2025), employers expect 39% of workers' core skills to change by 2030, with AI and big data, networks and cybersecurity, and technological literacy ranking among the fastest-growing skill areas. At the same time, Albanian higher education operates in a national context with uneven digital competence, reinforcing the importance of universities as capability accelerators rather than passive credentialing institutions.

This study therefore reframes the public-private debate. Ownership is treated as the context within which curriculum design decisions are made, rather than as a causal explanation in itself. The analytical question is whether public programmes, private programmes, or neither systematically integrate the competencies most closely associated with 2030 labour-market demand and, more importantly, whether those competencies appear as mandatory and mastery-oriented learning outcomes. To answer that question, the article develops a document-based benchmarking approach together with a measurable Curriculum Market Alignment Index (CMAI).

First, the article constructs a 2030 Labour-Market Skills Benchmark that translates future employer demand signals into curriculum-map-ready competence clusters. Second, it operationalizes CMAI as an ECTS-weighted scoring framework that uses an Introduced-Reinforced-Mastered (I-R-M) rubric to distinguish between nominal subject coverage and competence-oriented delivery. The study is intended as an evidence test of a frequent claim rather than a defence of any sector.

The study addresses three research questions: (1) Are public economics faculties in Albania more aligned with 2030 labour-market competencies than private institutions? (2) Which skill clusters show the largest gaps across both sectors? (3) Which minimum curriculum intervention package is most likely to increase alignment within typical bachelor-level constraints?

The paper makes three contributions. First, it provides an eight-cluster 2030 benchmark tailored to economics-family programmes. Second, it offers a transparent CMAI scoring procedure that can be replicated from published curriculum structures. Third, it translates the findings into a practical minimum intervention package for programme revision. Beyond the Albanian case, the article demonstrates a low-cost method for testing curriculum-labour-market alignment in systems where detailed syllabi, graduate-outcome data, or employer surveys are incomplete or unavailable.

Literature Review

Curriculum "market orientation" in higher education is frequently asserted rather than tested, particularly in public-private disputes in which reputation, scale, and institutional tradition are used as substitutes for labour-market relevance. A more rigorous method is to translate employability and market congruence into observable curriculum evidence, such as intended learning outcomes, module structure, assessment signals, work-based components, and capstone requirements.

This reasoning is consistent with the principle of constructive alignment. Biggs (2014, see also Biggs & Tang, 2011) conceptualizes constructive alignment as an outcomes-based framework in which intended learning objectives are specified in advance, and pedagogical strategies together with assessment practices are systematically orchestrated to elicit those objectives. In parallel, Harden (2001) demonstrates that curriculum mapping renders the scope, sequencing, and assessment linkages of a programme explicit, thereby enabling transparency and auditability. Prideaux (2003) extends this to the level of module design, arguing that deliberate choices about content sequencing and assessment formats are themselves signals of programmatic intent. Collectively, these perspectives substantiate the view that published curriculum structures constitute significant evidence of programmatic intent, particularly when the aim is to facilitate rigorous cross-institutional comparison.

Employability scholarship further anchors the rationale for curriculum benchmarking. Harvey (2001) establishes a foundational definition of employability as the capacity of graduates to obtain and sustain fulfilling work, and argues that the concept must be operationalised through observable curriculum features rather than reputational proxies. Yorke and Knight (2006) develop this position further, defining employability as a set of achievements skills, understandings, and personal attributes, that make graduates more likely to gain employment and succeed in their occupations. Mason, Williams, and Cranmer (2009) provide empirical evidence that employability-oriented curriculum initiatives significantly improve graduate labour-market outcomes, particularly when embedded as compulsory components rather than optional additions. Clarke (2018) emphasises that employability is multi-dimensional and context-dependent, combining human capital with behavioural and contextual factors. Tomlinson (2012) synthesises this literature and concludes that employability is best understood as a dynamic capacity shaped by how programmes are designed and assessed, not merely by the subjects they cover. Eimer and Bohndick (2023) likewise show that higher education uses multiple competing employability models rather than a single settled framework, which makes transparency in benchmark choice especially important.

For the future-skills dimension of the benchmark, the most authoritative reference is the World Economic Forum’s *Future of Jobs Report 2025*, which anticipates a substantial skills transformation through 2030. The report identifies analytical thinking, artificial intelligence and big data, technological literacy, and networks and cybersecurity as among the most salient labour-market signals. Modernizing these signals requires a fundamental shift in pedagogical thinking; in the AI era, economics education must transition from viewing technology as a passive tool to integrating it as a 'cognitive partner' that facilitates interdisciplinary synthesis and applied problem-solving (Suh, 2025). A second pillar is provided by *DigComp 2.2*, which offers a structured architecture for digital competence, including a dedicated safety domain that is particularly valuable for translating cyber and digital-risk expectations into curriculum language. Complementing these, *ESCO* contributes a standardized European vocabulary that enhances interoperability between educational evidence and employer-facing skills terminology.

To preserve disciplinary validity, the benchmark is also anchored in the *QAA Subject Benchmark Statement for Economics* (2023), which specifies the knowledge, skills, and understandings expected of economics graduates upon completion of their programmes. This anchoring is crucial, as labour-market alignment must not reduce economics to generic business training; rather, the objective is to modernize economics-family curricula while retaining intellectual coherence and disciplinary depth. Finally, the *ECTS Users’ Guide* (European Commission, 2015) supports the use of ECTS as a meaningful unit of curriculum mass, given its explicit linkage to learning outcomes, workload, and assessment.

Taken together, constructive alignment, curriculum mapping, employability scholarship, future-skills frameworks, disciplinary benchmarks, and credit systems converge to justify the

recognition of published curriculum structures as robust evidence of programmatic intent. They demonstrate how curricula can simultaneously embody disciplinary integrity, articulate employability outcomes, and respond to global skills transformations, thereby enabling both internal coherence and external comparability across institutions.

Methodology

This study adopts a comparative, document-based curriculum benchmarking design following the approach described by Bowen (2009), who establishes document analysis as a rigorous yet resource-efficient qualitative method for studying institutional practices from publicly available records. Its purpose is to assess how far undergraduate business and finance related programmes align with a competency benchmark oriented toward analytical capability, data and AI readiness, digital risk awareness, professional knowledge, and employability-related skills. The analysis relies exclusively on publicly available curricular evidence, specifically programme plans, module titles, ECTS structures, and explicit practice-based elements such as internships, capstones, and thesis requirements. No interviews, survey perceptions, or reputational rankings are used in the scoring procedure. This design choice keeps the measurement transparent, replicable, and anchored in observable curricular evidence rather than subjective judgement. The coding strategy is deliberately conservative. Elective placeholders without identifiable titles are not treated as proof of advanced competence, because their content cannot be verified from the published programme documents. Similarly, when institutions publish long elective menus, the benchmark counts only the number of elective slots that students are actually required to take, rather than the full menu of available options. This avoids inflating the apparent strength of programmes that present many possible choices but do not require them.

The core computed sample includes 14 bachelor programmes across six Albanian institutions. The public sector includes FEUT (Finance; Business Administration) and UElbasan (Finance & Accounting; Business Administration). The private sector includes CIT (Finance & Accounting; Business Administration), EPOKA (Finance & Banking; Business Administration), Luarasi (Finance & Banking; Business Administration), and UET (Finance & Accounting; Finance & Banking; Business Management - Marketing specialization; Business Management - Organization Management specialization). The appendix workbook also includes one NYU/ABF case for which ECTS had to be imputed and scaled from image-based source tables; because that case is methodologically weaker, it is excluded from the core comparison and retained only as a sensitivity check.

The benchmark framework is organized into eight competence clusters: K1 analytical thinking and economic reasoning; K2 quantitative methods and data literacy; K3 applied data/AI/BI and automation for economists; K4 cyber/digital risk and controls for business contexts; K5 communication and collaboration; K6 economics/finance/accounting professional core; K7 sustainability/ESG and climate or energy economics; and K8 employability, ethics, governance, and lifelong learning. To prevent double counting, each module is assigned exactly one primary cluster. A secondary cluster is assigned only when the module clearly spans two competence domains. For dual-purpose modules, the default allocation rule is $\alpha = 0.70$ to the primary cluster and $\alpha = 0.30$ to the secondary cluster. After cluster assignment, each module is evaluated using an Introduced-Reinforced-Mastered rubric: Introduced ($m = 1$) for conceptual exposure only, Reinforced ($m = 2$) when observable practice cues are present, and Mastered ($m = 3$) when authentic assessed outputs are explicit, especially in internships, capstones, and theses. For programme p , the Curriculum Market Alignment Index (CMAI) is computed as:

$$CMAI_p = \frac{100}{3 \times ECTS_p} \times \sum_i \sum_k (ECTS_i \times \alpha_{ik} \times m_i \times w_k)$$

Here, $ECTS_p$ is the total ECTS used for programme p , $ECTS_i$ is the credit value of module i , α_{ik} is the cluster allocation share, m_i is the mastery weight, and w_k is the benchmark weight. The weight vector ($K1 = 0.17$, $K2 = 0.12$, $K3 = 0.17$, $K4 = 0.12$, $K5 = 0.10$, $K6 = 0.20$, $K7 = 0.06$, $K8 = 0.06$) was assigned by triangulating three sources. K6 receives the highest individual weight (0.20) because disciplinary professional knowledge remains the defining expectation for economics graduates in the QAA Subject Benchmark Statement (2023). K1 and K3 share the second-highest weight (0.17 each) because analytical thinking and applied data competences are consistently ranked as the two highest-priority employer expectations in both the WEF (2025) and OECD (2019) future-skills frameworks. K2 and K4 receive intermediate weights (0.12 each) as quantitative foundations and digital-risk literacy that strongly support, but do not individually lead, the skills transition. K5 communication and K8 employability and ethics receive lower weights (0.10 and 0.06 respectively), reflecting their importance as graduate attributes that are typically developed diffusely across a programme rather than concentrated in discrete modules. K7 sustainability and ESG receives the lowest weight (0.06) because, while strategically critical, it is the most nascent cluster in economics curriculum practice and is still absent from most published programme structures. The weights sum to unity and are applied uniformly across all programmes, ensuring comparability. In most cases, the denominator reflects the directly observed programme total rather than forcing all curricula to 180 ECTS, thereby preserving fidelity to the published source documents. The CMAI scale is theoretically bounded between 0 and 100, where 100 would require every ECTS credit to be simultaneously assigned to all clusters at the mastered level, a hypothetical ceiling that no real programme approaches. In practice, the core sample scores between 5.36 and 6.25. These values reflect the reality that most ECTS mass is concentrated in the K6 disciplinary core at the introductory mastery level ($m = 1$), with limited reinforced practice in future-skills clusters and near-zero coverage of K4 and K7. The scores should therefore be read as curriculum profiles rather than percentage attainment figures: a CMAI near 6.0 characterises a programme dominated by disciplinary knowledge at the introductory level, with some reinforced practice in analytics and quantitative methods but negligible assessed engagement with digital risk and sustainability. Because document-based coding still involves judgement at the margins, the protocol is intentionally auditable and conservative: each module receives one primary cluster, a secondary cluster is used only when the published evidence clearly supports a dual-purpose classification, and ambiguous practice cues are scored at the lower mastery level rather than upgraded. All coding was performed by a single researcher following a pre-defined protocol; formal inter-coder reliability testing was not undertaken in this pilot study, which constitutes a noted limitation of the present findings. Sensitivity to the weight vector was assessed by testing two alternative specifications: one that reduces K6 to 0.15 and raises K3 to 0.22, and one that distributes weight more evenly across all eight clusters. In both cases, the complete separation between private and public sector programmes in the core sample was preserved, indicating that the principal sectoral finding is robust to reasonable variation in the weighting scheme. The analysis then proceeds in three stages. First, programme-level CMAI scores are compared across institutions and sectors. Second, cluster-level contribution profiles are examined to identify where alignment is concentrated and where important gaps remain. Third, the observed gaps are translated into a practical intervention

logic for curriculum redesign. Because the NYU/ABF case is excluded from the core sample, the main findings rest on programmes with directly observed ECTS only; when the NYU/ABF case is reintroduced as a sensitivity check, the ownership conclusion remains unchanged.

Results and Discussion

Programme-level CMAI results (RQ1)

This section addresses RQ1 by comparing programme-level CMAI scores across the 14-programme core sample. The ranked results reveal a clear pattern: public programmes do not align better than private programmes on the computed benchmark. The public-sector mean is 5.54, whereas the private-sector mean is 5.99.

This difference is reinforced by the overall distribution of scores, which shows complete separation between the two sectors in the core sample. To verify the reliability of this finding, a Welch’s t-test for independent samples was conducted to compare the means of the private (n=10) and public (n=4) sectors. The test (summarized in Table 1) confirms that the private sector’s higher alignment is statistically significant ($t(6) = 5.08$, $p < 0.01$), indicating that the observed gap is not a result of sampling variance but reflects a systematic difference in curriculum design choices.

Table 1. Independent Samples T-Test for Sectoral CMAI Differences

Sector	n	Mean CMAI	SD	t-statistic	p-value
Private	10	5.99	0.16	5.08	0.002
Public	4	5.54	0.15		

Source: Own calculations

Table 2 reports the specific CMAI rankings for all 14 programmes and also the visual distribution of these ranked scores is further illustrated in Figure 1, which highlights the consistent performance advantage maintained by private providers across the core sample.

Table 2. Core-sample programme-level CMAI scores (ranked)

Rank	Institution	Programme	Sector	ECTS	CMAI
1	UET	Finance (Accounting spec) - UET	Private	180	6.25
2	UET	Finance (Banking spec) - UET	Private	180	6.22
3	UET	Business Management (Org. Mgmt spec) - UET	Private	180	6.10
4	UET	Business Management (Marketing spec) - UET	Private	180	6.08
5	EPOKA	Finance & Banking - EPOKA	Private	180	5.92
6	EPOKA	Business Administration - EPOKA	Private	180	5.92
7	Luarasi	Administrim Biznesi - Luarasi	Private	168	5.91
8	CIT	Business Administration - CIT	Private	180	5.90
9	CIT	Finance & Accounting - CIT	Private	180	5.83
10	Luarasi	Luarasi - Finance Bank	Private	180	5.80
11	FEUT	Business Administration - FEUT	Public	180	5.66

12	FEUT	Finance - FEUT	Public	180	5.66
13	UELbasan	Finance Kontabilitet – UELbasan	Public	192	5.47
14	UELbasan	Administrim Biznesi – UELbasan	Public	188	5.36

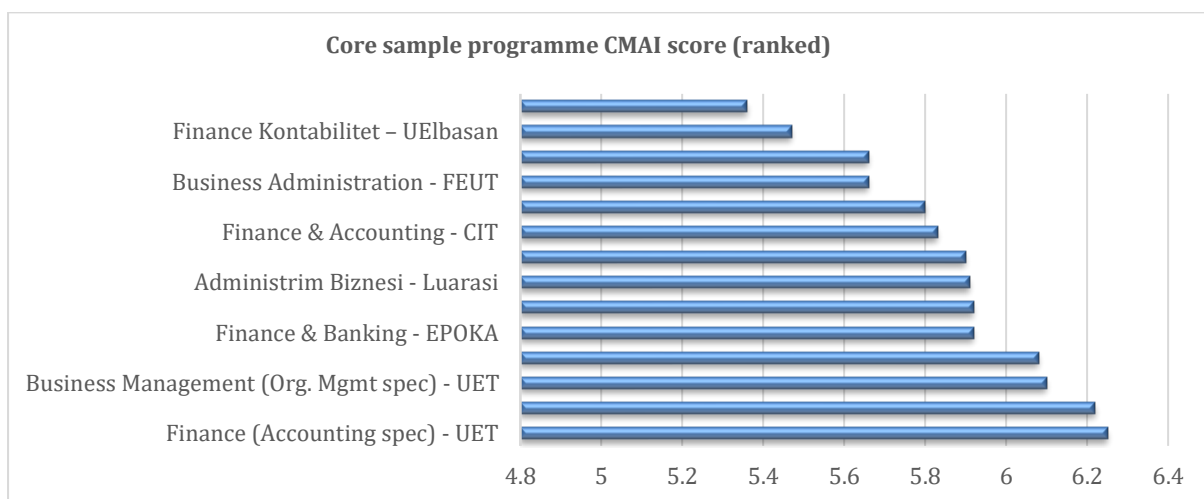
Source: Own calculations

The strongest public performers are FEUT Finance and FEUT Business Administration, both scoring 5.66, while the lowest public score is recorded by UELbasan Business Administration at 5.36. By contrast, the lowest private-sector score is 5.80, which remains above the highest public score of 5.66. Put differently, even the best-performing public programmes fall below the private-sector median of 5.92.

The highest scores in the sample are achieved by UET Finance (Accounting specialization) at 6.25 and UET Finance (Banking specialization) at 6.22. These are followed by the two UET Business Management specializations and the two EPOKA programmes, which also occupy the upper part of the ranking. Overall, the pattern is therefore stronger than a simple mean difference: it reflects a systematic advantage in benchmark alignment across the private-sector programmes included in the sample.

This result should not be interpreted as showing that private ownership, by itself, produces better curricula. Rather, it indicates that, within the observed sample, the specific curriculum designs adopted by private providers are more closely aligned with the benchmarked 2030 skills profile. The sectoral difference is therefore better understood as a design effect than as an ownership effect.

Figure 1. Ranked programme CMAI scores



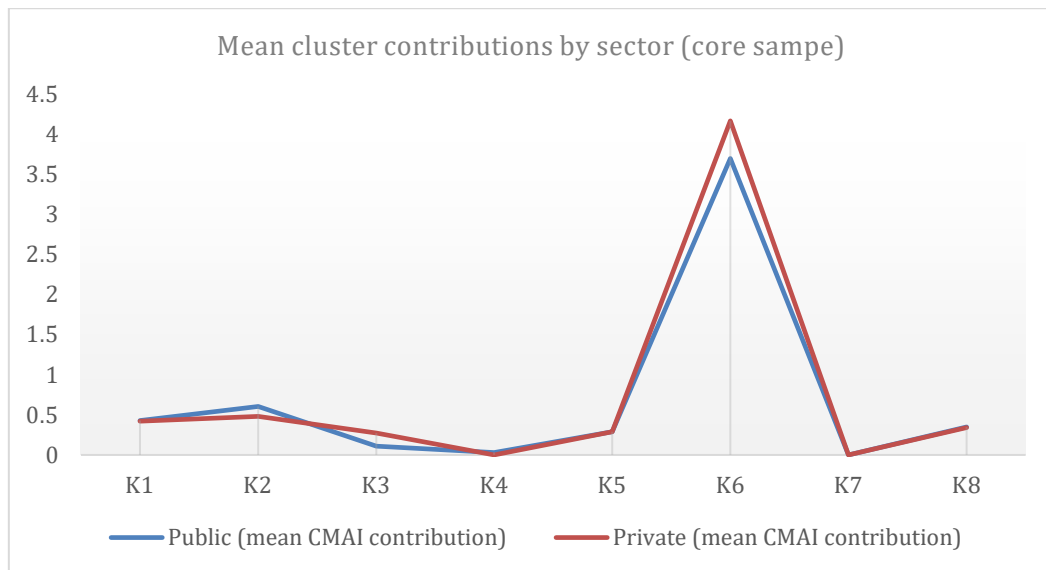
Source: Own research

Cluster-level contribution profiles (RQ2)

The ownership result becomes easier to interpret once the programme-level CMAI scores are decomposed by cluster. Figure 2 presents the mean cluster contributions by sector and reveals three clear patterns. First, both sectors are overwhelmingly K6-driven. The economics, finance, and accounting professional core contributes the largest share of total CMAI in every institution and accounts, on average, for roughly two-thirds of the overall score in both sectors. This confirms that the benchmark does not reward generic digitalization in isolation; disciplinary core knowledge remains central to overall alignment.

Second, the clearest public-sector comparative advantage lies in K2 quantitative methods and data literacy. Public programmes average 0.605 on K2, compared with 0.482 for private programmes. This indicates that public curricula do not lag uniformly across the benchmark. Their weakness lies elsewhere, most notably in K3 applied analytics and tooling, where the public-sector mean is only 0.110, compared with 0.275 in the private sector. The sectoral difference therefore appears to reflect not a lack of quantitative foundations, but a weaker translation of those foundations into applied analytical and digital practice.

Figure 2. Mean CMAI contribution by sector (public vs. private)



Source: Own research

Third, the most serious system-wide gaps are found in K7 sustainability/ESG and K4 cyber/digital risk. The fact that K7 is exactly zero in all 14 core-sample programmes, suggests that published curriculum structures do not explicitly integrate sustainability or ESG as a credit-bearing component. This 'double zero' finding represents a significant structural gap, as empirical evidence suggests that embedding ESG principles into finance and economics programmes not only addresses critical global challenges but also correlates with improved graduate employment outcomes and lower youth unemployment (Nurillayev, 2025). Further, K4 is also exceptionally weak, being absent in 11 programmes and appearing only marginally in three cases. The highest K4 contributions are recorded by UElbasan Finance & Accounting (0.07) and UElbasan Business Administration (0.06), while the only other non-zero case is EPOKA Finance & Banking (0.01). Even these values are too small to suggest robust, assessed competence in digital risk and control.

Variation within the private sector is also important. UET achieves the highest overall CMAI scores without leading the sample in K3; its advantage derives from a broad K6 base combined with strong K2 performance. By contrast, CIT Finance & Accounting produces the strongest K3 contribution in the core sample, showing that high alignment can be achieved through different curriculum architectures. For this reason, the evidence supports a design-over-ownership interpretation rather than a simplistic public-private stereotype. The aggregated performance metrics for each participating institution, including the mean CMAI and the range of scores observed within their respective programmes, are consolidated in Table 3.

Public programmes are relatively stronger in K2, but private programmes show a clearly larger K3 contribution and a stronger K6 base; K7 is absent in both sectors and K4 is near-zero system wide.

Table 3. Institution level CMAI summary (core sample)

Institution	Sector	Programmes (n)	Mean CMAI	Range
FEUT	Public	2	5.66	5.66-5.66
UElbasan	Public	2	5.42	5.36-5.47
UET	Private	4	6.16	6.08-6.25
EPOKA	Private	2	5.92	5.92-5.92
CIT	Private	2	5.87	5.83-5.90
Luarasi	Private	2	5.86	5.80-5.91

Source: Own calculations

Intervention priorities under bachelor-level curriculum constraints (RQ3)

RQ3 asks which minimum set of curriculum changes is most likely to improve benchmark alignment within the practical constraints of a typical bachelor programme. It is important to note that in Albania, as in most Bologna Process signatories, programme structures require formal accreditation approval for significant revisions; the intervention priorities identified below are therefore presented as a sequenced reform agenda rather than changes implementable without institutional and regulatory process. The scoring logic points to a clear hierarchy of priorities. The largest gains are most likely to come from compulsory reinforced K3 modules, followed by K4 business-facing digital-risk content and capstone or internship formats that require explicit analytics or governance artefacts. Although K7 sustainability and ESG remain strategically important, their lower benchmark weight means they are better embedded across required core courses than treated as stand-alone score-maximizing additions. The key implication is that curriculum improvement depends less on wholesale redesign than on targeted changes to required modules with high alignment leverage.

Table 4 reports indicative gross gains for a typical 180-ECTS programme. These are gross rather than net gains, since the actual effect depends on what is displaced. Replacing unidentified electives, low-information placeholders, or weakly aligned generic modules is likely to generate substantially larger net improvements than replacing already strong K2 or K6 components. Even so, the ranking of likely interventions remains stable across programme types.

The first priority is therefore to introduce or strengthen compulsory analytics-oriented K3 content. The prioritization of applied analytics is supported by recent economic projections indicating that the ability to utilize generative AI and data tools will be a primary driver of productivity gains and professional relevance through 2030 (KPMG International, 2025). Because K3 is both strategically important and underdeveloped in much of the sample, reinforced required modules in business analytics, data tools, BI applications, or AI-supported decision making offer the strongest improvement potential. The second priority is business facing K4 content, especially where digital risk, internal controls, cybersecurity awareness, or data governance can be connected directly to managerial and financial decision contexts. The third priority is not necessarily a new module, but a redesign of capstones, internships, and

final projects so that they produce explicit assessed outputs such as dashboards, applied analyses, risk memos, governance reports, or structured digital artefacts. Such changes increase the likelihood that learning is coded at the reinforced or mastered level rather than remaining only introductory.

By contrast, ESG and sustainability content should be understood as a necessary complement rather than a sufficient intervention on their own. Their absence across the sample signals an important curricular omission, but because K7 carries a lower benchmark weight, isolated stand-alone additions are less efficient than integrating ESG-related issues into existing economics, finance, accounting, strategy, and governance courses. In practical terms, the evidence points to a stable intervention sequence across programme types: compulsory analytics first, business-relevant digital risk second, applied capstone redesign third, and ESG mainstreaming as an essential supporting layer.

Table 4. Indicative minimum package and gross CMAI gains in a typical 180-ECTS programme

Intervention	Target cluster(s)	Indicative gross gain	Why it matters
6 ECTS mandatory Applied Data Analytics for Economists	K3 (Reinforced)	+0.38	Delivers the largest direct score lift because K3 is highly weighted and currently under-embedded, especially in public curricula.
5 ECTS Business-facing Cyber/Digital Risk and Controls	K4 (Reinforced)	+0.22	Closes a near-universal structural gap in privacy, controls, operational resilience and digital-risk literacy.
6 ECTS applied capstone/internship redesign with analytics or risk artefacts	K8 primary / K3 secondary (Mastered)	+0.31	Raises employability evidence and converts practice modules into visible, assessable competence rather than nominal completion.
4-5 ECTS ESG or climate-economics integration	K7 (Reinforced)	+0.09 to +0.11	Essential for completeness and legitimacy, but better mainstreamed into required core modules than treated as the main score-maximizing reform. Furthermore, integrating sustainability is no longer merely a matter of institutional legitimacy; it is a prerequisite for intellectual coherence, as environmental and climate economics now intersect with almost every subdiscipline of the modern economics curriculum (Mearman, Barile, & Plumridge, 2023).

Source: Own calculations

Conclusions

The expanded pilot results support a clear design-over-ownership interpretation of curriculum “market orientation.” In the observed sample, public ownership is not a reliable predictor of stronger labour-market alignment. What matters is whether programmes embed future-facing competences as compulsory, credit-bearing and assessable components. The strongest differentiator is not institutional label, but curriculum architecture.

The analysis also qualifies that conclusion in an important way. Public programmes are not simply weaker versions of private ones. Their relative strength in K2 suggests that many public

curricula preserve quantitative foundations reasonably well. However, those strengths do not translate into higher overall alignment because the benchmark increasingly rewards competence that connects analytics, tooling, automation and applied practice to economic and business problem-solving. The real gap is therefore not “maths versus no maths” but “methods without tools” versus “methods with tools and outputs.”

Two system-level findings deserve particular emphasis. First, K4 cyber/digital risk is no longer best described as fully absent; rather, it is marginal and fragile. It appears explicitly in only three programmes, and even there at trivial levels. Second, K7 sustainability/ESG is more severe: it is not explicitly captured at all in the core published curriculum structures. This means that, as currently documented, the sample exhibits modernization in some areas but not a full 2030 readiness profile.

These results also illustrate a governance problem. When advanced competences are left to electives, unclear placeholders, or implicit delivery, programme managers cannot guarantee attainment across cohorts. The Standards and Guidelines for Quality Assurance in the European Higher Education Area (ENQA, 2015) require institutions to define intended learning outcomes at programme level and to demonstrate their achievement through structured assessment, a standard that the prevalence of unidentified elective placeholders and implicit skill delivery in the current sample fails to meet. A modernisation strategy that targets quality-assurance compliance therefore has to make the relevant competences visible in the formal architecture: compulsory ECTS, explicit module titles, applied assessments, and auditable outputs. Under those conditions, curriculum mapping becomes not only a research method but also a management instrument for continuous improvement.

The study remains a document-based pilot, and its limitations should be stated plainly. As Bowen (2009) notes, document analysis provides access to institutional intent but not to lived implementation, a gap that is particularly significant when, as here, module titles may reflect marketing or accreditation language as much as pedagogical substance. Mastery scoring therefore represents an informed approximation of what programmes publicly commit to, not a direct measure of what students experience. The single-coder design represents a further limitation: although the coding protocol is conservative and auditable, inter-coder agreement data were not collected, which means the CMAI scores carry an unquantified margin of interpretive variance. Additionally, the public sector in the core sample is represented by two institutions only FEUT and Uelbasan, so sector-level conclusions should be read as referring to these observed programmes rather than as generalisable claims about Albanian public higher education in aggregate. Finally, the sample is not a census of Albanian providers, and both observed and unobserved selection factors may influence which institutions appear. Still, these limitations define the proper scope of the inference rather than negate it. The paper measures what programmes explicitly commit to in their published architecture, which is precisely the level at which quality assurance, accreditation, and curriculum redesign usually begin (ENQA, 2015).

In conclusion, within the observed sample of six Albanian institutions, the evidence does not support the claim that public economics faculties are inherently better aligned with 2030 labour-market skills than their private counterparts. In the core sample, private programmes outperform public programmes on CMAI, but the underlying explanation lies in curricular design choices rather than ownership alone. The most urgent reform priorities are compulsory applied analytics, business-facing digital-risk literacy, stronger practice-based evidence through capstones or internships, and explicit ESG mainstreaming. More broadly, the article shows how published curriculum documents can be turned into a transparent, low-cost alignment audit in settings where richer syllabus, graduate-outcome, or employer-survey data are limited.

References

- Autor, D. H. (2015). Why are there still so many jobs? The history and future of workplace automation. *Journal of Economic Perspectives*, 29(3), 3–30. <https://doi.org/10.1257/jep.29.3.3>
- Biggs, J. (2014). Constructive alignment in university teaching. *HERDSA Review of Higher Education*, 1, 5–22.
- Biggs, J., & Tang, C. (2011). *Teaching for quality learning at university* (4th ed.). Open University Press/McGraw-Hill.
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27–40. <https://doi.org/10.3316/QRJ0902027>
- Clarke, M. (2018). Rethinking graduate employability: The role of capital, individual attributes and context. *Studies in Higher Education*, 43(11), 1923–1937. <https://doi.org/10.1080/17508487.2016.1241960>
- Eimer, A., & Bohndick, C. (2023). Employability models for higher education: A systematic literature review and analysis. *Social Sciences & Humanities Open*, 8(1), 100588. <https://doi.org/10.1016/j.ssaho.2023.100588>
- European Association for Quality Assurance in Higher Education (ENQA). (2015). *Standards and guidelines for quality assurance in the European Higher Education Area (ESG)*. ENQA. https://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf
- European Commission. (2015). *ECTS users' guide 2015*. Publications Office of the European Union.
- European Commission. (n.d.). *What is ESCO? European Skills, Competences, Qualifications and Occupations*. Retrieved March 2026, from <https://esco.ec.europa.eu/en/about-esco/what-esco>
- Harden, R. M. (2001). AMEE Guide No. 21: Curriculum mapping: A tool for transparent and authentic teaching and learning. *Medical Teacher*, 23(2), 123–137. <https://doi.org/10.1080/01421590120036547>
- Harvey, L. (2001). Defining and measuring employability. *Quality in Higher Education*, 7(2), 97–109. <https://doi.org/10.1080/13538320120059990>
- Institute of Statistics (INSTAT). (2021). *Survey on information and communication technologies (ICT) usage in households and by individuals in 2021*. <https://www.instat.gov.al/>
- KPMG International. (2025). Generative AI and economic growth: A new approach to measuring its potential impact. <https://kpmg.com/us/en/articles/2025/generative-ai-economic-growth.html>
- Mason, G., Williams, G., & Cranmer, S. (2009). Employability skills initiatives in higher education: What effects do they have and do they help graduates get jobs? *Studies in Higher Education*, 34(1), 1–21. <https://doi.org/10.1080/03075070802545809>
- Mearman, A., Barile, L., & Plumridge, A. (2023). Embedding sustainability in the economics curriculum. The Economics Network. <https://economicsnetwork.ac.uk/handbook/sustainability2023>
- Nurillayev, E. (2025). Embedding ESG in finance education: The impact of ESG education within graduate finance programs on ESG-related problems. *International Journal of Sustainability in Higher Education*, 26(8), 1914–1931. <https://doi.org/10.1108/IJSHE-06-2024-0388>
- OECD. (2019). *OECD Future of Education and Skills 2030: OECD Learning Compass 2030*. OECD Publishing. <https://www.oecd.org/education/2030-project/>
- Partners Albania for Change and Development. (2023). Albanian education system and measures to prevent brain drain. <https://www.partnersalbania.org/publication/albanian-education-system-and-measures-to-prevent-brain-drain/>
- Prideaux, D. (2003). Curriculum design. *British Medical Journal*, 326(7383), 268–270. <https://doi.org/10.1136/bmj.326.7383.268>
- Quality Assurance Agency for Higher Education (QAA). (2023). *Subject benchmark statement: Economics*. <https://www.qaa.ac.uk/quality-code/subject-benchmark-statements/economics>
- Sokoli, D., Kastrati, A., Xhemali, M., & Kodhel, E. (2025). Massivization of higher education: Evidence from Albania, Kosovo, and North Macedonia. *Athens Journal of Education*, 12(2), 271–290. <https://doi.org/10.30958/aje.12-2-5>
- Suh, J. (2025). AI-era business education in economics: Reimagining learning and thinking. *Issues in Economics and Business*, 11(1), 1–16. <https://www.macrothink.org/journal/index.php/ieb/article/view/23174>
- Tomlinson, M. (2012). Graduate employability: A review of conceptual and empirical themes. *Education + Training*, 54(4), 280–290.
- Vuorikari, R., Kluzer, S., & Punie, Y. (2022). *DigComp 2.2: The digital competence framework for citizens – with new examples of knowledge, skills and attitudes*. Publications Office of the European Union. <https://doi.org/10.2760/115376>

- World Economic Forum. (2025). *The future of jobs report 2025*. World Economic Forum.
<https://www.weforum.org/publications/the-future-of-jobs-report-2025/>
- Yorke, M., & Knight, P. T. (2006). *Embedding employability into the curriculum*. Higher Education Academy.

LEGISLATION ON TRAFFICKING VICTIMS IN ALBANIA FROM THE PERSPECTIVES OF SOCIAL WORK AND ECONOMICS: STRENGTHS, LIMITATIONS, AND IMPLEMENTATION CHALLENGES

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Abstract

During the period 1990–1991, following the collapse of the communist regime, Albania experienced profound political, economic, and social transformations that created conditions conducive to the emergence of human trafficking as a new and rapidly expanding illicit market. The transition period was marked by institutional fragility, economic instability, and a significant shift in societal values, including an intensified pursuit of financial gain. Within this context, certain individuals and organized groups sought enrichment through unlawful activities, including the trafficking, recruitment, and exploitation of women and girls in deeply dehumanizing conditions. At the time, Albania lacked a comprehensive anti-trafficking legal framework, which further facilitated the expansion of the phenomenon. The exploitation of women and girls, particularly within the sex industry, escalated dramatically due to weak state structures and limited border control mechanisms. The absence of effective institutional oversight and protective mechanisms left victims vulnerable and deprived of fundamental rights, especially those trafficked beyond Albanian territory. The aim of this study is to conduct a critical analysis of Albanian legislation concerning the phenomenon of human trafficking. It was not until 1995 that the first law addressing trafficking was adopted in Albania (Law No. 7895, dated 27 January 1995). The objective of this research is to identify the strengths and shortcomings of the Albanian legal framework on trafficking from the perspective of social workers.

Keywords: Legislation, Trafficking Victims, Social Aspects, Economic Aspects, Sexual Exploitation

Introduction

During the long and difficult period of the Albanian transition, the change of system, the fall of the dictatorship, and the emergence of a new era of democratic pluralism led the Albanian population to face major challenges. Among the most serious and painful issues faced by Albanian society was the phenomenon of trafficking of girls for the purpose of sexual exploitation.

Currently, even after 23 years, Albania continues to be considered a country of origin for the trafficking of girls for sexual exploitation. Being aware that trafficking is a difficult and complex phenomenon, the reintegration of trafficked girls into society and their ability to cope with life afterward requires a reassessment of the legal framework and an analysis of the legislation to identify its shortcomings and limitations.

The trafficking of women for sexual exploitation began after 1990, in conditions of a complete lack of an anti-trafficking legal framework. The first law on trafficking was approved in 1995. Only after 2000 did Albania begin to undertake legal measures and instruments to fight and prevent human trafficking.

In 2001, on the initiative of the Albanian government, the first anti-trafficking strategy was developed, involving actors from local government as well as various non-profit organizations. Gradually, through this approach, the strengthening of Albanian legislation led to a reduction of the trafficking phenomenon, although it was not completely eliminated.

However, despite these measures, the phenomenon of human trafficking has changed significantly, becoming more hidden and more organized in recent years.

The Evolution of Albanian Legislation

For the first time, human trafficking was defined as a criminal offense in the Criminal Code of Albania by introducing specific provisions through Law No. 8733 of 2001, “On some additions and amendments to Law No. 7895, dated 27.01.1995, the Criminal Code of the Republic of Albania,” whereby after Article 110, Article 110/a “Trafficking in persons” was added. With this law, after Article 114, Article 114/a “Trafficking of women for prostitution” was also added.

During this period (2001), trafficking began to be recognized as a serious social issue, and the Albanian state started to address this phenomenon more seriously through the implementation of legal reforms, incorporating into the Criminal Code provisions that imposed severe penalties against this crime.

The most important international document that laid the foundation for combating human trafficking is the United Nations Convention against Transnational Organized Crime, along with its two additional protocols, ratified by Albania through Law No. 8920 dated 11.07.2002. With the amendments introduced by Law No. 9188, dated 12.02.2004, the Criminal Code included three specific provisions related to trafficking.

In order to fully comply with the Palermo Protocol, through Law No. 9188 dated 12.02.2004, “On some additions and amendments to Law No. 7895, dated 27.01.1995 ‘Criminal Code of the Republic of Albania,’ as amended,” Article 110/a was revised as follows:

“Trafficking in persons” shall mean the recruitment, transportation, transfer, harboring, or receipt of persons by means of threat or use of force or other forms of coercion, abduction, fraud, deception, abuse of authority or of a position of vulnerability, or the giving or receiving of payments or benefits to obtain the consent of a person having control over another person, for the purpose of exploitation.

Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labor or services, slavery or practices similar to slavery, the use of persons, or the removal and transplantation of organs, as well as other forms of exploitation.

The elements of trafficking in persons, according to the definition of the Palermo Protocol, are divided into three groups:

- Act (activity/process): recruitment, transportation, transfer, harboring, or receipt of persons;

- Means: threat, use of force or other forms of coercion, abduction, fraud, deception, abuse of power or of a position of vulnerability, or giving/receiving payments or benefits;
- Forms of exploitation: sexual exploitation, forced labour or services, slavery or practices similar to slavery, removal of organs, or servitude.

Albanian Legislation Against Trafficking in Human Beings

The Constitution of the Republic of Albania constitutes the highest law in the hierarchy of legal acts in the Republic of Albania. It sanctions certain rights in the prevention and protection of human beings from the phenomenon of trafficking.

Article 3 of the Constitution stipulates that: “...human dignity, his rights and freedoms... are the foundation of this state, which has the duty to respect and protect them.”

In the Constitution, several provisions sanction the guarantee of fundamental human rights and freedoms, as well as protection from violence: “Fundamental human rights and freedoms are indivisible, inalienable and inviolable and stand at the foundation of the entire legal order.”; “The life of a person is protected by law”; “No one may be subjected to torture, punishment or cruel, inhuman or degrading treatment.”

The Constitution provides that no one may be deprived of liberty except in cases and according to procedures provided by law (Article 27).

In conditions of deprivation, exploitation, and torture as elements of a dangerous act for society, which is closely related to the phenomenon of trafficking, this has importance for guaranteeing the right to be free.

Furthermore, Article 26 of the Constitution sanctions the individual’s right not to be subjected to forced labor.

This sanction has particular importance because exploitation through forced labor is an element of trafficking of girls/women for the purpose of prostitution.

A meaningful provision of the Constitution is the one that states that children, young people, pregnant women, and new mothers have the right to special protection by the state. This sanction is of great importance, since in most cases, trafficked girls/women for exploitation purposes are accompanied by physical and psychological violence.

Laws

Criminal Code of the Republic of Albania

The Albanian state has made legislative changes regarding trafficking in human beings in the Criminal Code of 1995, with Law no. 8733, dated 24.01.2001. Amendments were also made with Law no. 9188, dated 12.02.2004, within the framework of aligning domestic legislation with the Palermo Protocol.

With Law no. 8733, dated 24.01.2001, Article 110/a “Trafficking in human beings” was added. The need arising from social reality and the ratification of the Palermo Protocol “On the prevention, suppression and punishment of trafficking in persons, especially women and children,” supplementing the United Nations Convention “Against Transnational Organized Crime,” made the amendment of the Criminal Code necessary.

With Law no. 9188, dated 12.02.2004, the legislator more clearly defined the criminal offenses of trafficking in human beings and provided as separate criminal offenses the trafficking of persons, trafficking of women, and trafficking of minors.

The legislator became more sensitive to the special protection of women and girls by providing specific provisions for their trafficking, as well as harsher penalties for the perpetrators.

Code of Criminal Procedure

(Code of Criminal Procedure of the Republic of Albania, Law no. 7905, dated 21.03.1995, amended by Law no. 8813, dated 13.06.2002 and Law no. 9276, dated 16.09.2004).

The Code of Criminal Procedure of the Republic of Albania specifies two categories of victims of criminal offenses:

- A. The person harmed by the criminal offense
- B. The injured party acting as a prosecuting party

Victims may file a lawsuit against the offender by addressing the court when violence has been exercised against them, categorizing it as a criminal offense. The Code of Criminal Procedure provides for the rights of the injured prosecuting party. It determines the types of criminal offenses for which the injured prosecuting party has the right to submit a claim directly to the court (Article 58, Article 59).

Under Article 59 of the Code of Criminal Procedure, we conclude that criminal offenses of trafficking in human beings, as well as all other criminal offenses related to this phenomenon, are prosecuted by the prosecuting authority and cannot be prosecuted upon complaint to the court. Consequently, victims of trafficking in human beings may seek compensation for damages only through a civil claim within the criminal process or through a lawsuit in civil proceedings. In this case, they have the status of a party in the trial and may be represented by a lawyer in relation to their claim in the criminal process.

However, there are no legal provisions primarily guaranteeing their protection through a lawyer.

Family Code

The Family Code plays a fundamental role in protecting family members from the phenomenon of trafficking in human beings by regulating family relationships. Victims of trafficking (VOT) face a series of legal problems in family relations.

The Family Code provides for the age of 18 for future spouses, requiring their free and full consent to marriage.

A marriage entered into without free consent, without the intention of living together as husband and wife, under the influence of a threat, or below the legal age established by this Code, is invalid.

The Family Code provides for equal rights and obligations for spouses in the dissolution of marriage, which serve as a guarantee for a healthy family and protection from dangerous social phenomena.

Among the rights and obligations provided by the Family Code for spouses, we can highlight the right to “compensatory contribution” (Article 147) and the “right to use the residence” (Article 153). These are important rights for the protection of women and children.

Conclusion and Recommendations

I believe and assess that the changes made within the legal framework in recent years have expanded and further developed the legal concept of trafficking by linking it not only to sexual exploitation but also to other forms of exploitation, such as forced labor or services.

Given that trafficking in human beings is a phenomenon of the transition period, in our society Albania initially lacked an anti-trafficking legal framework capable of providing immediate assistance to trafficked girls. From the first law drafted on trafficking in 1995 until today, it can be observed that the phenomenon of human trafficking has been significantly reduced, but it has not been completely eliminated.

Recent developments in our criminal legislation have been carried out in alignment with international acts. I note that the definitions made regarding the trafficking of girls/women for

sexual exploitation in Albanian criminal legislation are fully in line with the corresponding definitions of the Palermo Protocol.

Personally, I believe that the Code of Criminal Procedure needs improvement by offering greater support to victims of crime, especially victims of violent crimes, in order to guarantee their right to information and to ensure legal protection.

It often occurs in the Albanian state that laws from developed foreign countries are adopted and adapted into Albanian legislation without considering that those countries have a higher level of economic, social, and cultural development, while Albania remains a small country with a lower economic standard and a relatively closed, patriarchal society. Nevertheless, recent developments in our criminal legislation have been aligned with international acts. For example, the understanding and definitions of trafficking in persons, particularly women, in Albanian criminal legislation are consistent with the definitions of the Palermo Protocol.

I believe that measures should be taken to properly punish traffickers and to combat organized crime. It is very important that the Albanian state implement laws and national strategies against trafficking in human beings effectively, so that girls who are victims of trafficking can feel safer in the future if the legislation is enforced.

I also believe that a trafficked girl should be compensated in some way for the damage caused by traffickers, for example through financial compensation, in order to help her start a new and independent life. This should be clearly sanctioned by law.

One way of compensating victims of trafficking (VOT) would be for the Albanian state to confiscate the assets of the exploiter/trafficker and allocate them for the benefit of the girl who was sexually exploited.

References

- Constitution of the Republic of Albania, Law No. 8417, dated October 21, 1998.
- Criminal Code of the Republic of Albania, approved by Law No. 7895, dated January 27, 1995, as amended by Laws No. 8204 (April 10, 1997), No. 8279 (January 15, 1998), No. 8733 (January 24, 2001), No. 9017 (March 6, 2003), No. 9030 (March 13, 2003), and No. 9188 (February 12, 2004).
- Criminal Procedure Code of the Republic of Albania, Law No. 7905, dated March 21, 1995, as amended by Laws No. 8460 (February 11, 1999), No. 8570 (January 20, 2000), No. 8602 (April 10, 2000), and No. 8813 (June 13, 2002).
- Civil Code of the Republic of Albania, approved by Law No. 7850, dated July 29, 1994.
- Family Code of the Republic of Albania, Law No. 9062, dated May 8, 2003.
- United Nations Convention against Transnational Organized Crime, ratified by Albania through Law No. 8920, dated July 11, 2002.
- Protocol against the Smuggling of Migrants by Land, Sea, and Air, supplementing the United Nations Convention against Transnational Organized Crime, ratified by Albania through Law No. 8920, dated July 11, 2002.
- Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime, ratified by Albania through Law No. 8920, dated July 11, 2002.

THE ROLE OF CIVIL SOCIETY AND NGOS IN PROMOTING MINORITY RIGHTS AND GENDER EQUALITY: ADVOCACY, LEGAL SUPPORT, COMMUNITY PROGRAMS, AND GENDER RESPONSIVE BUDGETING

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Abstract

Minority rights are a practical test of whether a state moves beyond formal equality toward substantive inclusion. Constitutional guarantees of equal treatment do not automatically ensure that persons belonging to national, ethnic, religious, or linguistic minorities can preserve their identity, use their language, access equal education, and participate effectively in public life. This paper examines the contribution of civil society organizations (CSOs) and non-governmental organizations (NGOs) to the promotion and protection of minority rights through three closely connected pathways: advocacy for legal and policy change, legal support and strategic litigation, and community-based empowerment programs.

Building on international minority rights standards and selected European practice, the paper explains why civil society is frequently described as the actor that converts norms into implementation by documenting violations, producing shadow reports, facilitating access to justice, and piloting inclusive services. The paper additionally argues that implementation gaps in minority rights protection are often also budget gaps, because legal commitments remain ineffective when policies are not financed, targeted, and monitored in ways that reach excluded groups. Gender-responsive budgeting is therefore discussed as a practical governance tool that can help connect equality obligations to the budget cycle and strengthen accountability for inclusive service delivery. The discussion then addresses key limitations and gaps, including shrinking civic space, donor dependence, fragmentation, and representation and accountability dilemmas within the NGO sector. A dedicated section focuses on Albania, highlighting the significance of Law No. 96/2017 on the protection of national minorities, while emphasizing implementation gaps, particularly for Roma and Egyptian communities, including persistent risks of school segregation. The paper concludes that durable progress requires coordinated state, civil society and community action, credible data, and oriented public policies and budgets that translate minority rights into lived equality.

Keywords: Minority rights, civil society, NGOs; advocacy, Albania; Roma and Egyptians, gender-responsive budgeting, intersectionality

Introduction

Modern constitutions, international human rights instruments, and European standards formally recognise minority rights. However, these guarantees do not ensure that minority

communities can preserve their language, culture, religion, and identity or participate equally in public life (United Nations, 1992; OHCHR, 2012). In practice, structural disadvantages persist, driven by weak implementation, unequal access to services, limited representation, and insufficient institutional responsiveness.

This gap between legal recognition and actual enjoyment of rights is central to minority-rights protection. While international standards affirm rights to culture, language, and religion without discrimination, they require more than passive tolerance. They depend on positive conditions, including institutional measures, participation, and safeguards against exclusion (OHCHR, 2012; Haque, 2019). Minority rights are therefore best understood as a framework for achieving substantive equality.

Current debates increasingly focus on implementation. Legal norms are effective only when translated into institutional practice, policy design, and budgetary decisions. This makes minority protection closely linked to governance capacity, including data availability, accountability mechanisms, access to remedies, and inclusive institutions (OHCHR, 2012; Djordjević & Zaimi, 2019). Without these, rights risk remaining symbolic.

Within this gap, civil society organisations (CSOs) and non-governmental organisations (NGOs) play a key role. They act as intermediaries between minority communities and institutions, translating rights into actionable claims and supporting access to systems that may otherwise be exclusionary. Their functions include monitoring, advocacy, legal support, and community-based programmes that promote participation and empowerment.

Minority-rights implementation must also be understood through an intersectional lens. Individuals within minority communities experience overlapping disadvantages linked to gender, poverty, disability, or geography. Minority women and girls, in particular, may face compounded forms of exclusion (CEDAW Committee, 2010). This requires analysis beyond legal frameworks, incorporating public policy and resource allocation.

Gender-responsive budgeting (GRB) provides a practical tool in this regard. By integrating a gender perspective across the budget cycle, GRB assesses whether public resources contribute to equality outcomes (Stotsky, 2016; OECD, 2023; UN Women, 2024). Applied to minority rights, it strengthens accountability by linking legal commitments with spending decisions and service delivery.

Against this background, the article reviews the literature on minority rights and civil society, outlines the methodological approach, and examines the key functions of civil society in minority-rights protection. It incorporates an intersectional perspective and explores the role of GRB in connecting equality commitments with public resource allocation. Finally, drawing on the case of Albania, it highlights how legal progress continues to coexist with implementation gaps and underscores the need for coordinated action to advance substantive equality (Djordjević & Zaimi, 2019; CERD, 2021; MRG, 2023).

2. Conceptual and Normative Framework

2.1 The Meaning and Scope of Minority Right

Minority rights refer to legal protections and institutional measures that enable minority groups to preserve their identity and participate equally in social, political, economic, and cultural life. Minorities are generally understood as numerically smaller, non-dominant groups with distinct ethnic, linguistic, religious, or cultural characteristics they seek to maintain (OHCHR, 2012; Haque, 2019).

Formal equality alone is insufficient to address the structural disadvantages these groups face. Minority rights therefore extend beyond non-discrimination to include positive measures that support the preservation and expression of identity (OHCHR, 2012; Haque, 2019).

In practice, these rights include language use, cultural expression, religious freedom, and participation in public life. They may also involve access to minority-language education, communication with public institutions, and representation in decision-making. In this sense, minority rights are both protective and enabling, safeguarding communities from exclusion while supporting meaningful inclusion.

These rights are not special privileges, but a practical expression of equality, dignity, and respect for diversity. Their aim is not separation, but inclusion without assimilation, contributing to social cohesion and pluralism in democratic societies.

At the same time, minority rights extend beyond identity to broader issues such as access to services, representation, and equal opportunities. Where disadvantages are reinforced by poverty, geographic isolation, or weak institutions, effective protection requires not only legal recognition but also coordinated public action and accountability. Minority rights are therefore increasingly understood as both a legal and governance issue.

2.2 International and European Standards and Enforcement Pathways

Minority rights are embedded in a multi-layered system of international and regional norms, institutions, and enforcement mechanisms. At the global level, they derive from core human rights principles such as equality, non-discrimination, cultural freedom, and participation. Instruments like the UN Declaration on Minority Rights establish key protections related to identity, language, religion, and participation, while emphasising state responsibility for enabling their effective exercise (United Nations, 1992; OHCHR, 2012).

In Europe, these standards are reinforced by binding frameworks and monitoring systems. The Council of Europe Framework Convention for the Protection of National Minorities (FCNM) requires states to adopt concrete measures in areas such as education, language, media, and participation. Its monitoring mechanism evaluates not only legal frameworks but also their implementation, reflecting a shift toward substantive outcomes (Djordjević & Zaimi, 2019).

The OSCE, through the High Commissioner on National Minorities, contributes through preventive diplomacy, addressing tensions before they escalate. International courts and treaty bodies further support accountability by examining complaints and clarifying state obligations, strengthening the development of minority-rights jurisprudence (United Nations, 2001; Djordjević & Zaimi, 2019).

Despite this extensive framework, a persistent gap remains between commitments and implementation. Legal standards require functioning institutions, political will, resources, and monitoring to be effective. Weak data systems, limited access to remedies, and institutional constraints can undermine their practical realisation, highlighting that minority protection is both a legal and governance challenge.

In this context, civil society organisations (CSOs) and non-governmental organisations (NGOs) play a crucial intermediary role. They connect international standards with domestic practice by documenting violations, preparing shadow reports, providing legal support, and advocating for policy reform. Through these functions, they strengthen accountability and help ensure that minority-rights standards are reflected in institutional practice (OHCHR, 2012).

3. Civil Society and NGOs as Minority-Rights Actors

Civil society operates in the space between the state, the market, and the private sphere, where individuals and groups organise around shared interests and values. Within this space, CSOs and NGOs function as structured, non-profit, and independent actors active across areas such as human rights, social inclusion, education, and local development (Schnellbach, 2016). Their position allows them to engage both with institutions and communities, making them

particularly relevant where gaps exist between legal commitments and practical implementation.

In the field of minority rights, civil society plays a multidimensional role. CSOs and NGOs act as intermediaries between minority communities and public institutions, facilitating communication, supporting access to services, and translating legal rights into actionable claims, especially where linguistic, socio-economic, or institutional barriers exist.

They also serve as monitoring and accountability actors. Through documenting violations, preparing shadow reports, and engaging with national and international oversight mechanisms, NGOs make implementation gaps visible and subject to scrutiny (OHCHR, 2012). In doing so, they strengthen accountability both between citizens and the state and across institutions.

In addition, NGOs provide legal and technical support, assisting individuals in accessing remedies and navigating administrative and judicial processes, particularly where public legal aid is limited.

Beyond these roles, civil society functions as a space for social innovation. NGOs often pilot approaches to inclusion, participation, and service delivery that can inform public policy. In the context of minority rights, this includes community-based programmes, participatory platforms for dialogue, and initiatives aimed at improving access to education, employment, and public services. These activities demonstrate how civil society contributes not only to accountability but also to the practical realisation of rights.

At the same time, civil society faces important constraints. Challenges related to representation, accountability, and sustainability arise, particularly where organisations depend on external funding or where internal governance does not fully reflect community diversity. Ensuring the inclusion of women, youth, and other underrepresented groups remains a key concern (Klatt, 2023). Restrictive legal environments, administrative burdens, and politicised narratives can further limit the independence and effectiveness of NGOs (OHCHR, 2012).

Despite these challenges, civil society remains a central actor in the minority-rights ecosystem. By linking communities, institutions, and international frameworks, CSOs and NGOs help bridge the gap between formal legal standards and lived equality, contributing to the transformation of minority rights into tangible outcomes.

4. Advocacy for Minority Rights

Advocacy is a central mechanism through which civil society promotes and protects minority rights. It encompasses efforts to raise awareness, influence public debate, and push for more inclusive laws and policies. In this context, advocacy operates both within institutions, through engagement with legal and policy processes, and within society, by shaping public understanding and challenging exclusionary attitudes (OHCHR, 2012; Kymlicka, 2007).

At the institutional level, CSOs and NGOs contribute by monitoring the situation of minority communities, documenting violations, and reporting findings to national and international bodies. These activities make implementation gaps visible and increase pressure on institutions to respond more effectively (Djordjević & Zaimi, 2019; OHCHR, 2012).

Advocacy also involves direct engagement in policy-making. Civil society organisations participate in consultations, provide expertise, and propose legal and policy reforms. In some cases, they contribute to drafting legislation, national strategies, or action plans, helping shape how minority rights are implemented in practice, particularly where minority groups are underrepresented in decision-making (OHCHR, 2012; Verstichel, 2010). Beyond institutions, NGOs play a key role in shaping public discourse. Through campaigns, education, and media engagement, they challenge stereotypes, address discrimination, and promote more inclusive narratives. This work is essential in tackling underlying drivers of

exclusion, such as racism, xenophobia, and hate speech, and in fostering a social environment supportive of minority rights (Haque, 2019; Council of Europe, 2018).

Advocacy is often strengthened through transnational cooperation. International networks support local organisations by facilitating documentation, capacity building, and access to regional and global platforms, increasing pressure on governments and enabling the exchange of good practices (MRG, 2015).

At the same time, advocacy faces important constraints. Civil society organisations may encounter political resistance, restricted access to decision-making, or regulatory limitations (CIVICUS, 2020). Dependence on donor funding can also affect priorities and limit the sustainability of long-term efforts.

Despite these challenges, advocacy remains a key tool for advancing minority rights. By combining evidence, policy engagement, and public communication, civil society helps translate legal commitments into concrete policy action and measurable improvements in the lives of minority communities (OHCHR, 2012; Kymlicka, 2007).

5. Community Programs and Minority Empowerment

CSOs and NGOs play a key role in supporting minority communities through community-based programmes that translate legal rights into everyday realities. While legal frameworks are essential, their impact depends on whether individuals can access services, build skills, and participate meaningfully in social and economic life (OHCHR, 2012; MRG, 2015).

These programmes address interconnected challenges faced by minority communities. In education, NGOs support inclusion through tutoring, language courses, and initiatives to reduce school dropout rates, while also assisting families in navigating education systems and overcoming barriers such as discrimination or lack of documentation (MRG, 2015; UNICEF, 2011). Education remains central to breaking long-term cycles of exclusion.

Civil society also promotes economic empowerment through vocational training, digital skills development, entrepreneurship support, and improved access to labour markets. Beyond income generation, these initiatives strengthen autonomy and social inclusion (Kymlicka, 2007; World Bank, 2020).

In addition, community programmes create spaces for participation and dialogue. NGOs facilitate forums where minority representatives can engage with local authorities, express concerns, and contribute to decision-making, improving both representation and institutional responsiveness (Verstichel, 2010; Council of Europe, 2018).

An intersectional approach is essential, as minority communities often face overlapping disadvantages related to poverty, geography, and gender. Minority women, in particular, encounter additional barriers in education, employment, and participation, requiring targeted and gender-sensitive interventions (Fasciglione, 2013; OHCHR, 2012).

However, these programmes face sustainability challenges. Many rely on short-term donor funding, lack strong links to public institutions, or suffer from limited coordination, reducing their long-term impact. This highlights the need to better integrate civil society initiatives into public policies and ensure more stable support (World Bank, 2020; CIVICUS, 2020).

Despite these constraints, community-based programmes remain central to minority-rights implementation. By providing direct support and fostering participation, CSOs and NGOs help translate legal commitments into tangible improvements in the lives of minority communities (OHCHR, 2012; MRG, 2015).

6. Constraints of Civil Society Engagement

CSOs and NGOs play an important role in advancing minority rights, but their effectiveness is shaped by significant constraints. A key challenge is the shrinking space for civil society in

many countries, where legal restrictions, administrative burdens, and political pressure limit their ability to operate independently. Governments may restrict funding, constrain advocacy activities, or frame NGOs as politically biased, weakening their capacity to monitor violations, provide legal support, and engage in policy dialogue (OHCHR, 2012; CIVICUS, 2020).

Dependence on external funding presents an additional limitation. Many organisations rely on short-term, project-based financing, which can prioritise measurable outputs over long-term structural change. Donor priorities may also shape activities, reducing flexibility to respond to evolving community needs. In some cases, programmes fail to produce lasting impact or risk reinforcing existing patterns of exclusion (World Bank, 2020; Banks et al., 2015; Bridge Network et al., 2025).

Representation is another challenge. NGOs often act on behalf of minority communities that are internally diverse, and differences related to gender, age, disability, or socio-economic status can influence whose voices are prioritised. This underscores the need for inclusive internal governance to avoid reproducing inequalities (Klatt, 2023; Fraser, 2008).

The relationship between civil society and the state is also complex. While NGOs are expected to act as independent watchdogs, they are frequently involved in service delivery or policy implementation, sometimes in partnership with public institutions. This dual role can create tensions, particularly where organisations depend on state funding or institutional access, requiring a careful balance between cooperation and independence (Edwards, 2014; Lewis, 2002).

Finally, many initiatives remain limited in scale. Projects often operate at local or pilot levels and struggle to influence broader systems. Without stronger integration into public policies and institutions, even effective practices may remain isolated rather than scalable, highlighting the need for better coordination and institutional uptake (OECD, 2018; World Bank, 2020).

These constraints do not diminish the importance of civil society but clarify the conditions under which it is most effective. Impact depends on an enabling environment that safeguards freedom of association, ensures sustainable funding, and supports meaningful participation, alongside organisations that are accountable, inclusive, and closely connected to the communities they represent.

7. Gender Equality, Intersectionality, and GRB as an Implementation Lens

Minority-rights protection requires an intersectional perspective that recognises the diversity within minority communities. Individuals experience disadvantage differently, shaped by factors such as gender, socio-economic status, disability, and location. Minority women and girls, in particular, often face overlapping inequalities, where minority status intersects with gender inequality, poverty, and limited access to services (CEDAW Committee, 2010).

Intersectionality helps explain how these forms of disadvantage interact, producing more complex patterns of exclusion than single-category approaches can capture. This highlights the need for policies that address combined and context-specific inequalities.

Translating this understanding into practice requires appropriate policy tools. Gender-responsive budgeting (GRB) provides one such mechanism by integrating a gender perspective across the budget cycle, from planning to implementation and monitoring, to assess whether public spending contributes to equality outcomes (Stotsky, 2016; OECD, 2023; UN Women, 2024). Rather than creating separate budgets, GRB evaluates how existing allocations affect different groups and whether services are accessible and responsive to their needs.

GRB also strengthens accountability by promoting the use of data and indicators to assess who benefits from public spending and where gaps persist. This is particularly relevant in minority-rights contexts, where limited disaggregated data often obscures inequalities. By

linking policy objectives with resource allocation, GRB supports a more evidence-based approach to inclusion (OECD, 2023; UN Women, 2024).

Civil society organisations can apply this lens through budget monitoring, analysis, and advocacy, identifying gaps in resource distribution and promoting more equitable spending. In this way, GRB adds a financial dimension to minority-rights work, shifting attention from formal recognition to effective implementation.

However, applying intersectionality and GRB remains challenging. Constraints include limited data availability, weak institutional capacity, and resistance within public administration, as well as broader political and fiscal pressures. Progress therefore depends not only on legal frameworks but also on stronger data systems, institutional learning, and sustained commitment.

8. Albania: Legal Framework and the Role of Civil Society

8.1 Law No. 96/2017 and the Implementation Gap

Albania provides a relevant example of the gap between legal progress and practical implementation in minority-rights protection. A major step was the adoption of Law No. 96/2017 “On the Protection of National Minorities,” which recognises nine national minorities and guarantees rights related to identity, language, education, cultural expression, and participation in public life (Djordjević & Zaimi, 2019; MRG, 2023). The law aligns broadly with European standards and marks a shift toward a more coherent legal framework.

However, implementation remains uneven. Key challenges include limited disaggregated data, uneven institutional capacity across municipalities, weak inter-institutional coordination, and a gap between formal participation mechanisms and meaningful influence in decision-making. Financial limitations add to these problems, as minority-related measures are often not clearly visible in public budgets, making it difficult to assess whether resources are adequate or effectively targeted (OECD, 2023; World Bank, 2020; UN Women, 2024).

The Albanian case therefore illustrates a broader governance challenge: legal recognition alone is insufficient without effective institutions, coordination, participation, and funding. In this context, civil society plays an important role in monitoring implementation, supporting communities, and advocating for more inclusive policies (OHCHR, 2012).

8.2 Civil Society as an Implementation Actor in Albania

Civil society organisations in Albania play an important role in translating minority-rights protections into practice. Their contribution spans several stages of the policy process, from advocacy and consultation to implementation support and accountability. Civil society actors were also involved in the drafting process of Law No. 96/2017, reflecting their growing role in shaping legal and policy frameworks related to inclusion and human rights (Djordjević & Zaimi, 2019; MRG, 2023).

One of their main functions is monitoring. NGOs document discrimination and exclusion, assess implementation gaps, and report their findings to both national institutions and international monitoring bodies such as CERD and Council of Europe mechanisms (CERD, 2021; OHCHR, 2012). They also provide expertise and recommendations in areas such as education, access to services, anti-discrimination, and participation, while often acting as intermediaries between minority communities and institutions.

Their role is especially visible at the local level, where municipalities are responsible for key services. NGOs frequently assist individuals with documentation, administrative procedures, and communication with local authorities, while also creating spaces for consultation and community participation (World Bank, 2020; MRG, 2023). Many also implement donor-funded initiatives in education, employment, and community development, though these often

face sustainability problems because they are not fully integrated into public systems (CIVICUS, 2020; OECD, 2018).

Despite funding, coordination, and representation challenges, civil society remains a key implementation and watchdog actor in Albania, particularly where institutional capacity is uneven and political attention to minority issues fluctuates.

8.3 Roma and Egyptian Communities: Inclusion Efforts and Persistent Structural Challenges

The experience of Roma and Egyptian communities in Albania illustrates both legal recognition and continuing structural exclusion. Although these communities are included in the legal framework and national strategies, they continue to face persistent disadvantages linked to poverty, inadequate housing, limited access to education and healthcare, and barriers to formal employment (MRG, 2023; World Bank, 2020).

Education remains one of the most critical areas. Although enrolment has improved, dropout rates remain high and de facto segregation continues to affect access to quality education. Roma and Egyptian children are often concentrated in under-resourced schools or classes, reflecting broader socio-economic inequalities and weak institutional responses rather than explicit legal segregation (European Roma Rights Centre, 2025; Right to Education Initiative, 2020).

Civil society organisations have responded through tutoring, school mediation, awareness campaigns, civil registration support, and economic empowerment initiatives. They also use legal advocacy and strategic litigation to challenge discrimination and promote accountability. However, the impact of these efforts is often constrained by structural discrimination, weak enforcement, and dependence on short-term external funding (OHCHR, 2012; OECD, 2023; CIVICUS, 2020).

An intersectional perspective is especially important here, since women and girls in these communities often face additional barriers in education, employment, and participation, requiring more targeted and gender-sensitive responses (CEDAW Committee, 2010; UN Women, 2024).

8.4 Gender-Responsive Budgeting (GRB) and Minority Inclusion in Albania

The challenges discussed above point to an issue that is often under-addressed in debates on minority rights: the role of public budgeting. Legal recognition and policy frameworks matter, but their practical impact depends on whether measures are costed, financed, and implemented through public institutions—particularly in service sectors where inclusion is realised (education, social protection, health, housing, and local development). In this sense, public budgets function as an “implementation bridge” between formal commitments and lived equality.

Gender-responsive budgeting (GRB) offers a practical tool for strengthening this bridge. In public finance terms, gender budgeting is commonly understood as applying a gender lens to fiscal policy and public financial management tools, so that decision-makers can identify how budget choices affect women and men and adjust policies and allocations to close gaps. Importantly, GRB does not mean creating separate budgets for women; it means integrating gender considerations into mainstream budget planning, formulation, execution, and monitoring, using tools such as programme objectives, outputs, and indicators.

In Albania, GRB has been institutionalised through several steps that make it more than a purely donor-driven concept. Programme and performance-based budgeting has been embedded since the Organic Budget Law reforms, creating a structure where budget programmes connect policy objectives with resources. The Organic Budget Law (as amended) explicitly includes gender equality among the principles of budgetary system management. A

Council of Ministers decision in July 2012 introduced gender mainstreaming in the Medium-Term Budgetary Programme (MTBP), and subsequent guidance has aimed to translate GRB procedures into routine budget preparation and monitoring.

At local level, the law on local self-government finances includes a specific purpose related to ensuring that the creation and distribution of local financial resources accelerates and realises gender equality (“barazia gjinore”). This framing is important for minority-rights implementation because municipalities are often the institutions through which inclusion is delivered, especially where services depend on local planning, local outreach, and the design of accessible service points.

Nevertheless, Albania’s GRB implementation remains uneven. Empirical research based on interviews in municipalities suggests that GRB approaches vary widely and rely heavily on enabling factors such as gender statistics, contextual analysis, and stakeholder consultation (including participatory budgeting). This variation matters because it can produce a “postcode effect” where equality-oriented budgeting is stronger in some municipalities than others. More broadly, a SIGMA assessment highlights that weak credibility of medium-term forecasts can undermine links between MTBP and annual budgets, which in turn makes multi-year equality measures harder to sustain.

Recent public reporting indicates growth in the scale of GRB coverage in central government budgets. A 2025 announcement on the United Nations country team platform reported that GRB expanded from 9 to 77 budget programmes between 2015 and 2025 and that public investment for gender equality rose from USD 90 million to over USD 803 million over the same period. A December 2025 press release also reported a statement that gender-responsive budgeting accounts for 10% of the national budget. These signals suggest increased political visibility and resource attention, important preconditions for applying a GRB lens to other equality domains.

The key argument for extending GRB logic into minority-rights work is that many of the most persistent inequalities are intersectional. In Albania, this is particularly relevant for Roma and Egyptians, where exclusion is frequently shaped by overlapping factors (poverty, discrimination, weaker access to services, territorial marginalisation), and where women and girls may face compounded barriers. The National Action Plan for Equality, Inclusion and Participation of Roma and Egyptians (2021–2025) demonstrates this multi-dimensional reality by covering several priority sectors and aiming to narrow service access gaps.

From a budgeting perspective, a crucial feature of the Roma and Egyptian action plan is that it is costed and acknowledges a financing gap. It states a total estimated cost of 4,868,288,376 ALL (39,260,390 euro) for implementation, indicates state budget funding for measures, and identifies the remaining financial gap. This is exactly the type of structure where a GRB-inspired approach can add value: it creates a basis for tracking whether allocations match policy commitments over time and whether priority measures are financed consistently across institutions and municipalities.

However, having a plan and even a costing matrix does not automatically produce implementation. The European Parliament’s 2025 resolution on the Commission’s Albania report stated that implementation of the Roma action plan needs to be significantly improved. In addition, a Roma responsive budget brief recommended that budget allocations be linked to clearly defined Roma integration products, performance indicators, and targets—highlighting the recurring gap between stated objectives and budget architecture.

A practical way to connect GRB and minority-rights implementation in Albania is to build on an existing, locally adapted framework: Roma and Egyptian responsive budgeting (RERB) at municipal level. The Council of Europe reports that RERB guidelines were developed with partner municipalities and endorsed through Guideline No. 10 on preparation of local MTBP 2021–2023, providing a framework for applying minority-responsive budgeting across the

budget cycle and supporting local government units and Roma civil society stakeholders. This is significant because it shows that minority inclusion can be integrated into *standard* local budgeting procedures, not treated as an ad hoc project.

The substance of these guidelines is also relevant for a GRB-informed approach. They stress that responsive budgeting is not about creating a separate minority budget; rather, it is about an equal budgetary policy that takes minority needs into account across all budget-cycle stages. They offer an applied methodology (data collection; identifying needs; analysing activities and approved budgets; drafting recommendations) and provide a concrete example of a minority-sensitive indicator that would make beneficiaries visible in routine performance monitoring (e.g., number/share of Roma and Egyptian families receiving a service). In practical terms, these steps mirror GRB tools, but apply them to minority inclusion outcomes.

To make this intersectional approach viable, the data and accountability foundations matter. The 2023 census framework in Albania refers to self-identification for topics such as ethnic identity, language, and religion, which is important both for rights compliance and for the quality of equality analysis. The Council of Europe Advisory Committee has emphasised that credible, participatory data collection can provide the baseline needed for designing targeted policies, while also calling for data collection in key inclusion sectors in line with data protection standards. These points are central because a GRB lens without disaggregated data risks turning into a formalistic exercise (tagging without real insight into distributional effects). Albania’s budget system has also developed technical capacity that could support intersectional tracking. A World Bank document notes that GRB has been integrated into AFMIS through fields that allow identification of gender-related programmes, objectives, KPIs, and outputs via gender tags. Separately, UNICEF’s work on child budget tagging in Albania notes that the tagging exercise builds on a “state-of-the-art budget system,” suggesting that the technical approach of budget markers can be applied beyond a single theme. This combination points to a feasible pathway: minority-sensitive markers and indicators could be integrated into performance budgeting, alongside gender markers, to make intersectional inclusion both measurable and auditable.

Finally, civil society can strengthen the accountability dimension of this approach in a way that is directly aligned with minority-rights work. The Roma and Egyptian responsive budgeting framework explicitly treats responsive budgeting as more effective and sustainable when it involves stakeholders (including civil society and community-based groups). It also links the approach to transparency and participation, and notes the value of engaging communities in budgetary processes. Through budget monitoring, indicator review, and advocacy, civil society organisations can connect rights-based claims to concrete budget lines, service coverage, and beneficiary outcomes, moving the debate from “recognition” to “resourcing.”

Conclusions

This article has examined the role of CSOs and NGOs in promoting and protecting minority rights, showing that effective protection depends not only on legal recognition but also on implementation in institutions, public policies, and everyday life. Civil society plays a central role in this process through monitoring, advocacy, legal support, and community-based programmes that strengthen accountability and improve access to rights and services.

At the same time, civil society cannot compensate for state weaknesses on its own. Its impact depends on an enabling environment, sustainable funding, institutional openness, and meaningful participation. Lasting progress therefore requires stronger links between legal commitments and policy tools, especially budgeting. In this regard, gender-responsive budgeting offers a practical way to connect equality goals with resource allocation and service

delivery, particularly when viewed through an intersectional lens that recognises the compounded disadvantages faced by minority women and girls.

The Albanian case reflects both progress and continuing gaps. While Law No. 96/2017 marked an important legal step, challenges remain in data, institutional capacity, coordination, participation, and funding. Minority rights should therefore be understood not as fixed legal guarantees, but as an ongoing governance process that requires institutional commitment, active civil society engagement, and inclusive budgeting if formal rights are to become lived equality.

References

- Committee on the Elimination of Racial Discrimination. (2021). *Concluding observations on the combined thirteenth and fourteenth periodic reports of Albania* (CERD/C/ALB/13–14). United Nations.
- Djordjević, L., & Zaimi, Z. (2019). Commentary: The law on protection of national minorities in the Republic of Albania. *Journal on Ethnopolitics and Minority Issues in Europe*, 18(1), 53–69.
- European Roma Rights Centre. (n.d.). *Strategic litigation*. ERRC.
- European Roma Rights Centre. (2025). *Overview and recent activities*. ERRC.
- Fasciglione, M. (2013). The protection of economic, social and cultural rights of persons belonging to marginalized and vulnerable groups in times of financial crisis. *European Yearbook of Minority Issues*.
- Haque, M. T. (2019). Rights of the ethnic minorities under international law. *King's Student Law Review*, 10(2), 634–650.
- Klatt, M. (2023). Realising linguistic, cultural and educational rights of minorities. In *A global law of diversity: Evolving models and concepts*.
- Minority Rights Group International. (2015). *A guide for NGOs in Eastern Partnership countries: Advocating for the rights of minorities in the EU*. MRG.
- Minority Rights Group International. (2023). *World directory of minorities and indigenous peoples: Albania*. MRG.
- OECD. (2023). *Gender budgeting in OECD countries 2023*. OECD Publishing.
- Office of the High Commissioner for Human Rights. (2012). *Promoting and protecting minority rights: A guide for advocates*. OHCHR.
- Schnellbach, C. (2016). The role of NGOs in promoting minority rights in the enlarged European Union. In T. Malloy et al. (Eds.), *Trajectories of minority rights issues in Europe*.
- Stotsky, J. G. (2016). *Gender budgeting: Fiscal context and current outcomes* (IMF Working Paper No. WP/16/149). International Monetary Fund.
- United Nations. (1992). *Declaration on the rights of persons belonging to national or ethnic, religious and linguistic minorities* (A/RES/47/135).
- United Nations. (2001). *United Nations guide for minorities, pamphlet No. 9: The High Commissioner on National Minorities of the OSCE*. Office of the High Commissioner for Human Rights.
- Right to Education Initiative. (2020). *School segregation and education rights: Albania (Roma and Egyptian children)*. Right to Education Initiative.
- CIVICUS. (2020). *State of civil society report 2020*.
- Council of Europe. (2018). *Framework Convention for the Protection of National Minorities: Thematic commentary*.
- Fasciglione, M. (2013). *Intersectionality and human rights*.
- Kymlicka, W. (2007). *Multicultural odysseys*. Oxford University Press.
- Minority Rights Group International (MRG). (2015). *State of the world's minorities and indigenous peoples*.
- OHCHR. (2012). *Minority rights: International standards and guidance for implementation*. United Nations.
- UNICEF. (2011). *The right of Roma children to education*.
- Verstichel, A. (2010). *Participation, representation and identity*. Intersentia.
- World Bank. (2020). *Inclusion matters: Social inclusion and poverty reduction*.
- Vito D., Klun, M., and Rakar, I. (2025). Gender Responsive Budgeting Enabling Factors at local level, *Academic Journal of Interdisciplinary Studies*, 14, 81-94. DOI: <https://doi.org/10.36941/ajis-2025-0006>
- Vito, D., Rakar, I. (2024) “Gender Responsive Budgeting (GRB) in Western Balkans between aspirations and reality”, <https://intapi.sciendo.com/pdf/10.2478/ejels-2024-0002>
- CEDAW Committee. (2010, December 16). *General recommendation No. 28 on the core obligatory article 2 of the Convention on the Elimination of All Forms of Discrimination against Women* (CEDAW/C/GC/28). United Nations.
- UN Women. (2024, July 15). *What is gender-responsive budgeting?* UN Women.

- Associated Press. (2025, March). *Peru passes law critics claim will hamper the ability of NGOs to defend human rights*.
- Bridge Network, et al. (2025, May). *More than €1bn in EU funds used in discriminatory projects, report says*. *The Guardian*.
- Gunišová, K., & Zálešák, M. (2025, May). *Segregated classrooms are not a thing of the past – look at what is happening to Roma children in Slovakia*. *The Guardian*.

DIGITAL TRANSFORMATION AND COMPETITIVENESS IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT OF ECONOMIC STRUCTURES

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Abstract

In today's economic environment, digitalization and innovation play a crucial role in the sustainable development of economic structures. This paper explores the opportunities for enhancing competitiveness through the implementation of smart technologies, automation, and digital business models. The main objective of the study is to analyse the key challenges faced by various economic entities and propose strategies for the effective use of digital innovations. The expected outcomes include recommendations for optimizing processes, increasing resources management efficiency, and adopting new technology that provides a competitive advantage and long-term sustainability

Keywords: Competitiveness, economy structures, digitization, automation, innovation

Introduction

The modern economic environment is characterized by rapid pace of digital transformation and increased emphasis on sustainable development, which together form new paths to achieving competitiveness and long-term sustainability of economic structures.

Economic structures, when viewed as a combination of industries, institutions and infrastructures, represent a key field on which digital transformation exerts its systemic effects and through which sustainable development goals are channelled (Nadkarni & Prügl, 2021). An analysis of contemporary research highlights that digitalization not only redistributes activities along the value chain but also shifts the focus from traditional linear models to networks of co-creation and value capture, thus weakening the importance of industry boundaries (Nadkarni & Prügl, 2021). This transformation of the market environment and the rules of competition, including the blurring of industry boundaries and the emergence of cross-industry competitors, requires the implementation of a supra-organizational approach affecting industry ecosystems and societal levels (Vial, 2019). In this sense, digital transformation is not limited to internal changes but requires institutional adaptation and new forms of coordination (Nadkarni & Prügl, 2021).

Sustainable development serves precisely to provide the normative framework for planning and assessing these changes, defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (The World Commission on Environment and Development, 1989), and further developed by Bulgarian authors towards a four-fold perspective – economic, social, environmental and institutional (Penchev & Pencheva, 2017). Given the two-dimensional nature of digital

transformation – technological and operational (in the sense of the roles and actions of the participants in the transformation) – its success depends not only on information and communication technologies, but also on leadership, skills and organizational culture (Nadkarni & Prügl, 2021). However, the scientific literature notes a lack of research on aspects of digital transformation, including the pace of transformation, the cultural environment and the role of middle managers (Nadkarni & Prügl, 2021), as well as the ethical and dynamic aspects of the process (Vial, 2019).

The aim of this study is to examine the relationship between digital transformation and sustainable development, focusing on institutional adaptations and competitiveness in the context of network value models (value By analysing current trends and identifying key challenges, the paper aims to contribute to a deeper understanding of these interconnected processes and to suggest directions for future research.

The report explores the potential of digitalization processes and innovations as a key driver for the transformation of economic entities, by focusing on the implementation of smart technologies, automation, and digital business models. By referring to a theoretical framework integrating the main concepts such as digital transformation, sustainable development, and competitiveness, the conceptual basis for the analysis of the role of digitalization and innovation in achieving economic efficiency, social responsibility, and environmental sustainability is formed. The opportunities for increasing competitiveness through the implementation of smart technologies, automation, and digital business models are examined, as well as the challenges associated with their implementation. Based on the analysis, strategies and recommendations will be developed to guide economic entities towards sustainable and innovative practices.

Theoretical framework

In this section, we will focus on the main concepts discussed in the report, namely: digital transformation, sustainable development, and competitiveness. Clarifying the essence of the concepts is of particular importance for formulating their interrelationship and identifying their role in the activities of modern economic structures.

Nowadays, information technology has become “one of the threads that weave the fabric of the organization” (Zammuto and al. 2007, p. 750). Digital technologies are seen as a major resource for promoting organizational transformations, given their disruptive nature and broad trans-organizational and systemic effects (Besson & Rowe 2012). Successful digital transformation requires changes at different levels of the organization, including adaptation of the core business (Karimi & Walter 2015), exchange of skills and resources (Cha and al. 2015; Yeow and al. 2018), transforming processes and structures (Resca and al. 2013), adjustments in the applied leadership approaches (Hansen & Sia 2015; Singh & Hess 2017) and implementing a dynamic digital culture (Llopis and al. 2004).

In this study, we present digital transformation as the encounter between the implementation of revolutionary digital technologies on the one hand and organizational changes in skills, structure, processes and elements of business models led by incumbents on the other. In other words, in line with Hess and al. (2016), we consider digital transformation as a change in the organization caused by the influence of digital technologies. For this reason, we can argue that within organizations there are two perspectives: a technology-focused perspective and an activity-focused perspective. To use the technology-focused approach, studies on technological issues are included (e.g. Tushman & Anderson 1986; Anderson & Tushman 1990) in combination with activities on digital transformation. For the approach focusing on the activities of the organization, important conclusions are drawn from the field of corporate entrepreneurship (Guth & Ginsberg 1990), which is considered a source of valuable ideas

about innovation and renewal processes led by business actors within organizations. A brief presentation of the two concepts and their relationship to digital transformation is provided below.

Rice and al. (1998) describe disruptive innovations as “game-changers,” with the potential to “(1) increase an organization’s productivity by 5–10 times over existing products; (2) create the basis for a 30–50% cost reduction; or (3) introduce new performance features to the world” (p. 52). Similarly, Utterback (1994) emphasizes their disruptive power at the organizational and industry levels, offering a definition of “game-changers” as “changes that eliminate a significant portion of a firm’s existing investments in technical skills, knowledge, designs, manufacturing techniques, plants, and equipment” (p. 200). Tushman and Anderson (1986) distinguish between product and process disruption. Product disruption encompasses new product categories, replacements of existing products, or significant product improvements. Process disruption can be expressed in process replacements or process innovations that radically improve industry-specific quality metrics. Christensen and Raynor (2003) introduce an additional form of disruptive innovation – business model innovation, which involves the implementation of radically new business models in an existing business.

Based on the above, we can argue that digital technologies are reflected in all these definitions of disruptive innovation. They can represent innovations in products that were previously unknown, can replace existing processes, or open up completely new business models. As summarized in a recent study by Li and al. (2017), e-commerce, for example, is classified as a disruptive technology (Johnson 2010), leading to significant changes in organizational culture, business processes, skills, and markets (Zeng and al. 2008; Cui & Pan 2015).

In relation to the above, we can summarize: first, digital transformation, as presented in the analyzed studies, is mainly aimed at organizations; second, there are significant differences between the individual definitions in relation to the types of technologies (Horlacher and al. 2016; Westerman and al. 2011), as well as the nature of the transformation being carried out (Andriole 2017; Piccinini and al. 2015); third, despite the differences identified, the definitions share common features, for example, the use of unified concepts such as “digital technologies” (Matt and al. 2015; Singh & Hess 2017).

To better understand the diversity of interpretations of the term “digital transformation”, the table below presents definitions that have been formulated by various authoritative sources. These definitions have been carefully selected to reflect the different aspects and emphases of digital transformation, providing a basis for further analysis and discussion.

The analysis of the definitions presented in the table above reveals several key aspects of digital transformation. First, all sources emphasize the importance of technology as the main driver of transformation but emphasize its different dimensions. Second, the definitions emphasize the strategic nature of digital transformation. Third, although all definitions share a common basis – the use of technology for transformation – they differ in their emphasis on specific outcomes, such as competitive advantage, customer experience or organizational adaptability. The diversity of perspectives thus presented highlights the complexity of the concept of digital transformation, as well as the need for a holistic approach to its research and application in practice.

For the purposes of the study, it is necessary to clarify the essence of sustainable development, in relation to the understanding of digital transformation and as a condition for increasing the competitiveness of economic structures. According to Aurelio Pechey defines "sustainable development" as "a society that, in response to changes in internal and external conditions, is capable of establishing a new equilibrium corresponding to these changes, both within itself and in the entire environment of its existence" (Penchev, 1993, p. 18).

G. Bliznakov interprets sustainable development as follows: “This is such development that takes into account the need for reasonable and economical use of planetary resources in order to guarantee a decent life for both current and future generations” (Bliznakov, 1995, p. 117). According to the International Seminar on Institutional Foundations for Environmental Protection in Bulgaria, " sustainable development is a program for restructuring economic, social and technical relationships, aimed at preserving the natural and human environment for present and future generations, with full recognition of the unique value of nature.

Table 1. Definitions for the concept of “Digital Transformation”

Source	Definition
European Commission (2019)	Digital transformation is defined as a process of integration of advanced technologies, uniting physical and digital systems, with a focus on innovative business models, optimized processes, and the development of intelligent products and services aimed at increasing efficiency and competitiveness.
OECD (2018)	Digital transformation encompasses the economic and social impacts of the processes of digitalization and digitization. Digitization is the conversion of analog data and processes into digital format, while digitalization refers to the application of digital technologies and data, as well as their interconnection, to create new or transform existing activities and processes.
Ismail, Khater & Zaki (2017)	Digital transformation is a process by which organizations integrate multiple modern digital technologies and ubiquitous connectivity to achieve high performance and sustainable competitive advantage. This process encompasses transformation of the business model, customer experience (including digital products and services), operational processes and decision-making, as well as the development of human resources (skills, talents and organizational culture) and value networks.
Schwertner (2017)	Digital transformation refers to the strategic application of technology to develop new business models, processes, software solutions, and systems that lead to increased revenue, strengthened competitive advantages, and optimized operational efficiency.
Deloitte (2018)	Digital transformation is characterized by the use of digital technologies to significantly improve organizational performance and expand its reach. It includes process optimization, human capital engagement, and the introduction of innovative business models supported by technology solutions.
Bloomberg (2018)	Digital transformation implies developing the organizational capacity to effectively manage change, making agility a key competency. This process supports a holistic orientation towards customer needs and facilitates ongoing digitalization initiatives without becoming identified with them.

Source: Verina, N., & Titko, J. (2019). Digital transformation: Conceptual framework. In Contemporary Issues in Business, Management and Economics Engineering'2019. Vilnius Gediminas Technical University. <https://doi.org/10.3846/cibmee.2019.073>

This includes:

- sustainable use of natural resources;
- restoring and maintaining the integrity of ecological processes and ecosystems;
- protection of genetic diversity and nature conservation in the broadest sense;
- protecting and improving human health, security, economic and social well-being;
- equality between generations” (International Seminar on Institutional Foundations for Environmental Protection in Bulgaria, 1992, p. 10).

Sustainable development is a concept that is based on sustainable forms of development, ensuring a higher level of functioning of the system. This process is inextricably linked to the dynamics of rational consumption. Sustainable development is an objective necessity for the future, but already now requires the adoption of effective measures for its implementation.

The key dimensions of sustainable development include three interrelated aspects:

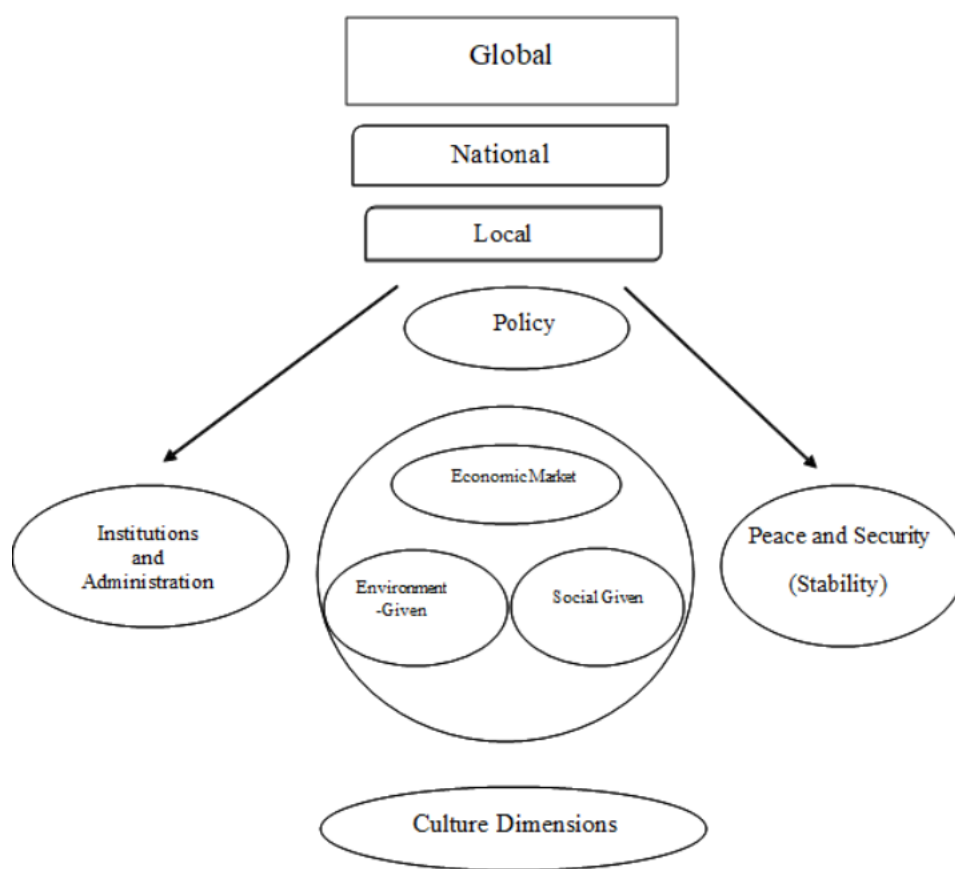
a) economic,

- b) social,
- c) ecological.

To these, the institutionalization of power must be added.

It is important to note that sustainable development should not be perceived as a static process, fixed primarily on production and consumption. It is dynamic, with progressive innovations – in economic, environmental, and social directions – finding wide applications (see Fig. 1). The characteristics of sustainable development show that the object of management is significantly expanded, since it is not limited to one element (economic, environmental or social), but encompasses these three interrelated components, without giving preference to any of them.

Figure 1. Elements of Sustainable Development



Source: Penchev & Pencheva (2017). "Sustainable Development – Theoretical and Practical Dimensions," Yearbook of DA Tsenov Academy of Economics, DA Tsenov Academy of Economic, Svishtov, Bulgaria, vol. 1(1 Year 20), pages 69-120.

The problem is of a planetary nature and is unprecedented in its scale and forms of manifestation. However, it is insoluble without regional and national goals and strategies for its achievement. “Sustainable development is a pragmatic necessity for the future development of the planet, but this cannot be achieved without national and regional goals and strategies. Therefore, sustainable development is an imperative that does not allow for political alternatives” (Penchev, 1993, p. 17).

After the above, it becomes clear that sustainable development acquires a key role in relation to digital transformation, as the integration of new technologies can optimize resources,

improve social services and support environmental initiatives, thus creating conditions for increasing the competitiveness of economic structures. Digital tools, such as data for analysis and automation, allow for more effective management of economic, social and environmental aspects, which is in line with the principles of sustainability and at the same time ensures adaptability to global challenges. In this way, sustainable development becomes a strategic factor that, in combination with digital transformation, not only guarantees long-term success, but also strengthens the positions of organizations in the competitive environment through innovative and sustainable practices.

It is appropriate to focus attention on the last of the key concepts in this paper, namely – the concept of competitiveness. Within the framework of this analysis, competitiveness is considered as the ability to sustainably gain an advantage over competitors, which arises from the structuring of resources and capabilities and materialized through market and organizational results (Hart & Rodgers, 2024). Modern systematic reviews emphasize the role of intellectual capital as a supporting structure—human (knowledge, skills, leadership capacity), structural (systems, processes, ICT, data management) and relational capital (networks, reputation, trust)-whose coordination provides competitive advantages (Hart & Rodgers, 2024). The sources thus formulated include knowledge management, practices for “Big Data” analysis, technological innovations, brand image and reputation; to these are added location and combination of resources as specific levers for differentiation and protection from competitive pressure (Hart & Rodgers, 2024). Theoretically, this logic corresponds to the view of dynamic capabilitiesensing, seizing, and transforming - as microfoundations for adaptation and strategic renewal in an environment of digital turbulence (Teece, 2007; 2014; Vial, 2019). In practice, the manifestations of competitiveness are seen in higher productivity and quality, faster innovation cycles, greater customer loyalty, and stability of positions in ecosystems-effects that are amplified when digital transformation is supported by mature managerial and organizational capabilities and aligned with sustainability criteria. In today's global economy, the competitiveness of economic entities depends on their ability to integrate innovations and at the same time adapt to rapidly changing market conditions. Digital technologies, which include intelligent systems, automation and digital business models, provide unique opportunities to increase efficiency, reduce costs, and create market differentiation (Porter & Heppelmann, 2014).

If we were to present the relationship between smart technologies and competitiveness and sustainable development, we could argue that smart technologies, automation and digital business models not only increase competitiveness, but also contribute to sustainable development by optimizing resources and reducing the environmental footprint. Furthermore, digital business models encourage shared consumption, which reduces the need for overproduction. This interrelationship between competitiveness and sustainability highlights the strategic role of digital innovation in modern economic structures.

Despite the many opportunities, the implementation of these technologies and models is associated with challenges, such as high start-up investments, the need to recruit and retain a skilled workforce, and regulatory constraints. Small and medium-sized enterprises (SMEs) often face difficulties in accessing capital for digital transformation, which can exacerbate market inequalities (OECD, 2021). These aspects will be discussed in more detail in the following sections, dedicated to the challenges and strategies to overcome them.

The role of digitalization and innovation for sustainable development

Sustainable development, as defined by the Brundtland Report (1987), is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. In the context of contemporary economic challenges, digitalization and

innovation are emerging as key catalysts for achieving sustainable development, contributing to economic growth, social integration, and environmental sustainability (Angelov, 2016). This section aims to analyse the role of digital technologies and innovations in the transformation of economic structures, focusing on their impact on **the three main dimensions of sustainable development – economic, social, and environmental**. The analysis builds on the theoretical framework in the previous section, which examined the concepts of competitiveness, sustainable development, and digital transformation, emphasizing their interconnectedness and strategic importance.

Digitalization and economic sustainability

Digitalization, seen as the integration of digital technologies into business processes and economic systems, facilitates the optimization of resources and increases the efficiency of production processes. The implementation of technologies such as the Internet of Things (IoT) and Big Data analytics allows enterprises to reduce costs and improve productivity through precise management of supply chains (Schwab, 2016). According to a report by the World Economic Forum (2023), digital platforms have contributed to an increase in global GDP by approximately 3% over the past decade, while reducing transaction costs. This process contributes to increasing economic sustainability by creating new market opportunities and promoting innovative business models, such as the sharing economy (e.g. Airbnb) and subscription services, which in turn increases the competitiveness of economic entities on a global scale.

Innovation and social sustainability

Innovations, especially in the field of smart technologies such as artificial intelligence (AI) and automation, have significant potential to improve social resilience by expanding access to education, health and public services. An example is the use of e-learning platforms supported by AI, which offer personalized learning for vulnerable groups, thereby reducing educational inequalities (UNESCO, 2021). However, the existence of challenges such as the digital divide and job losses due to automation requires the development of targeted reskilling and social integration policies. This dynamic serves to support competitiveness through the adaptability of human capital to the changing demands of the digital economy, while ensuring social justice.

Environmental sustainability through digital technologies

Environmental sustainability is an integral part of sustainable development, and digitalization, in turn, plays a crucial role in reducing the carbon footprint and optimizing resources. Smart technologies, such as energy management systems in smart cities or precision agriculture, support the efficient use of natural resources and at the same time contribute to reducing greenhouse gas emissions. For example, the implementation of IoT in manufacturing can reduce energy consumption by up to 20%, according to a McKinsey study (2022). However, the production of digital infrastructure, such as servers and data centers, creates environmental challenges, which necessitates the integration of green technologies and renewable energy sources to achieve long-term sustainability as a goal of economic structures. This also leads to strengthening competitiveness by creating environmentally sustainable business models.

Link to the Global Sustainable Development Goals

The role of digitalization and innovation, on the other hand, is also closely linked to the UN Sustainable Development Goals, especially Goal 9 (Industry, Innovation and Infrastructure) and Goal 13 (Climate Action). By implementing digital solutions, economic entities can achieve their balance between economic growth, social justice and environmental

responsibility. As an example, we can point to how blockchain technologies improve transparency in supply chains, supporting sustainable practices in global markets (World Bank, 2023). This integration highlights the importance of digital transformation as a tool for achieving competitive advantage within the framework of the global sustainable goals.

Digitalization and innovation are key drivers for sustainable development, offering solutions for economic efficiency, social inclusion and environmental sustainability. The successful implementation of these solutions depends on overcoming challenges such as technological barriers and inequalities in access to resources, which requires an integrated approach combining technological innovation with sustainable development policies. In the context of the theoretical framework presented above, the synergy between digitalization, innovation and sustainable development is established as a critical factor in the process of increasing the competitiveness of economic structures in a dynamically changing global environment. The next point will identify the opportunities for increasing competitiveness through the use and application of smart technologies, automation and digital business models.

Opportunities to increase competitiveness through smart technologies, automation and digital business models

After analyzing the role of digitalization and innovation for sustainable development, it becomes clear that the competitiveness of economic entities in the modern global economy depends on their ability to integrate smart technologies, automation and digital business models, adapting to rapidly changing market conditions, which also supports the principles of sustainability.

Digital technologies offer unique opportunities, such as increasing efficiency, reducing costs and creating market differentiation, as highlighted by Porter and Heppelmann (2014). These elements contribute not only to economic success, but also to environmental and social sustainability. This section examines how intelligent technologies, such as artificial intelligence (AI), the Internet of Things (IoT) and big data analytics (Big Data), optimize business processes, thereby enabling companies to reduce losses in sectors such as trade and logistics through AI-based demanding algorithms, while IoT facilitates real-time monitoring of the production process. This improves quality and reduces downtime, which strengthens the competitive position of enterprises.

Automation, which includes robotic process automation (RPA) and industrial robotics, can transform traditional models by reducing labour costs and increasing productivity by up to 40% in the manufacturing sector, according to the International Federation of Robotics (2022), and in the service sector RPA frees up human resources for strategic tasks. This contributes to long-term adaptability. Digital business models, such as the platform economy (Amazon, Uber) and subscription services (Netflix, Spotify), define the creation and delivery of value through economies of scale and network effects, thus increasing their market share, according to Deloitte (2023). This emphasizes their role for market differentiation in competitive environments.

There is also a connection with sustainable development, as the use of AI to optimize logistics routes reduces CO₂ emissions by up to 10% (World Economic Forum). Forum, 2023 b), and shared consumption, supported by digital models, limits overproduction, according to the previously discussed environmental aspects.

Despite all the positive aspects listed, the implementation of these technologies faces challenges such as high initial investments, the need for a skilled workforce and regulatory restrictions such as GDPR. This is especially true for small and medium-sized enterprises (SMEs), which face limited access to capital according to OECD (2021). These aspects require further analysis in the next section.

In conclusion, it can be emphasized that smart technologies, automation and digital business models can be seen as powerful tools for increasing competitiveness through process optimization and creating new niches that require a strategic approach and policies. They can synchronize economic benefits with set sustainability goals, thus contributing to the long-term success of economic structures in the context of digital transformation.

Analysis of the challenges facing economic entities

Based on the identified opportunities for increasing competitiveness through smart technologies, it is clear that the implementation of digital technologies, automation and digital business models brings with it a number of challenges that can limit economic entities in achieving competitive advantage and sustainability. Also, these barriers manifest themselves differently, depending on the type of entity – small and medium-sized enterprises (SMEs), large corporations or public institutions, affecting technological, financial, human and regulatory aspects. As an example of technological barriers, we can cite the lack of appropriate infrastructure, such as high-speed internet or modern data centres. This creates obstacles for SMEs in particular to the integration of artificial intelligence (AI), the Internet of Things (IoT) or blockchain, while the presence of incompatibility between existing and new systems requires costly adaptations.

Financial constraints are reflected in the high costs of developing and maintaining AI systems or robotic processes, which can range between €50,000 and €500,000 according to Deloitte (2022), and the lack of access to venture capital or government subsidies makes it difficult to invest in long-term innovation, especially for SMEs and the public sector, potentially working towards increasing market inequalities. Human and organizational challenges are rooted in the shortage of skilled labour with skills in data analytics or cybersecurity. In this regard, the World Economic Forum (2023 a) notes that 54% of companies global struggle with digital competencies, particularly in sectors such as manufacturing and healthcare, and resistance to change in established organizational cultures further slows down the adoption of new technologies. Regulatory and legal barriers, including the EU’s GDPR requirements, impose strict rules on data governance and cybersecurity. This complicates the implementation of AI or digital platforms, while differences in national legislation and increasing cyberattacks require additional investments in protection, thus diverting resources from innovation, as noted by the European Commission (2022a).

These barriers have a direct impact on sustainable development, as technological and financial constraints lead to limited access to green technologies. Human challenges, including potential job losses from automation, can increase social inequalities without appropriate retraining measures, according to Frey and Osborne (2017). All this highlights the need for an integrated approach to overcome existing obstacles. In conclusion, we can argue that the identified challenges require targeted strategies to address technological and financial barriers, as well as staff shortages and regulatory constraints, while ensuring equal access to digital innovation as a basis for further proposals.

Strategies for effective use of digital innovations

In view of the analysis of the challenges facing economic entities, we can argue that the effective use of digital innovations is essential for overcoming barriers and achieving competitive advantage, as well as for supporting sustainable development by integrating environmental and social aspects. In this section, it is appropriate to present comprehensive strategies for implementing smart technologies, automation and digital business models that are applicable to different economic structures.

The modular approach to implementing technologies such as artificial intelligence, the Internet of Things and big data analytics allows for pilot projects in specific areas, such as resource management or supply chains, which facilitates adaptation and reduces the risk of non-compliance, and for SMEs, cloud solutions such as Microsoft Azure or AWS help provide access to tools without large investments in infrastructure, according to McKinsey (2023).

Financial barriers can be overcome through public-private partnerships (PPPs) and instruments such as grants. An example of this is the Horizon programme. Europe, which finances up to 70% of the costs of digital transformation of SMEs according to European Commission (2022 b). On the other hand, partnerships with technology providers or universities reduce initial costs through shared resources, and large corporations can invest internal funds or back startups to diversify risk. Skill shortages can be addressed by investing in reskilling programs, which these days include training in AI, data analytics and cybersecurity through internal academies or collaboration with educational institutions. World Economic Forum (2023 a) notes that 60% of workers will need such training by 2030, and examples such as Siemens' programs show productivity gains through a combination of online courses and hands-on training.

Sustainable practices are promoted through the implementation of intelligent energy management systems that optimize consumption and reduce emissions according to the International Energy Agency (2023), and digital business models, such as sharing economy platforms, supporting the reuse of resources, with economic entities integrating ESG criteria. (a set of standards used to assess the sustainability and social impact of a company, focusing on three key aspects: Environmental, Social and Governance, meeting the expectations of consumers and investors.

Successful implementation requires a structured approach that includes digital maturity diagnostics, pilot projects, collaboration with partners, and monitoring through key performance indicators, such as cost reduction or productivity gains. These measures support competitive advantage and long-term sustainability as the basis for subsequent recommendations.

Recommendations for process optimization, resource management and technology implementation

This part of the report will offer actionable recommendations that build on the identified barriers and approaches by assisting economic entities – small and medium-sized enterprises, large corporations and public institutions – in achieving economic efficiency, social responsibility and environmental sustainability in accordance with ESG criteria.

Recommendation 1

Process optimization through Lean Digital Management

In order to improve business processes, it is advisable for economic entities to implement lean digital management, combining lean methodology with digital tools, such as process management software (SAP, Oracle NetSuite) to identify and eliminate inefficient processes in production or administration; also, digital dashboards that facilitate decision-making, and for SMEs, affordable cloud solutions such as Trello or Asana are recommended to provide flexibility and reduce operational burdens.

Recommendation 2

Big Data analysis

Resource management can be optimized by integrating big data analysis and predictive analytics tools, enabling precise planning of energy, raw materials and human capital, such as AI-based systems such as IBM Watson to reduce overproduction, and IoT systems for real-

time consumption monitoring would lead to improved efficiency in energy-intensive industries by contributing to environmental sustainability.

Recommendation 3

Implementing blockchain for transparency in supply chains

To strengthen competitive advantage and sustainable practices, economic entities should implement blockchain technologies, similar to those of Walmart, to verify the origin and quality of products in real time, which would increase consumer trust. As a recommendation, the implementation of pilot projects in critical sectors such as the food industry, in support of ESG criteria through ethical practices, can be highlighted.

Recommendation 4

Short-term and long-term plans for digital transformation

Technology implementation requires a two-phase approach - short-term initiatives, such as pilot projects with Robotic Process Automation (RPA) or AI chatbots for customer support within 6–12 months, and long-term plans for integration of platform models or digital ecosystems within 3–5 years. It is desirable to create specialized teams to coordinate these efforts.

Recommendation 5

Integration of ESG criteria into digital strategies

For long-term sustainability, economic entities should incorporate ESG criteria through the use of energy-efficient data centres that reduce their carbon footprint, as well as retraining programs for employees affected by automation to prevent social inequalities. It is also advisable to implement impact metrics such as emission reductions or the percentage of trained employees.

Successful implementation of the proposed recommendations requires a structured process through needs assessment, planning and budgeting with the search for grants or partnerships, implementation of pilot projects and monitoring through key performance indicators, such as cost reduction or productivity increase, which supports not only economic efficiency, but also social and environmental responsibility, in line with the sustainable global development goals.

Conclusion

Based on the analysis conducted in this way, we can conclude that digital transformation, supported by smart technologies, automation and innovation, is a key catalyst for achieving sustainable development and increasing the competitiveness of economic entities in the dynamically changing global environment.

Sustainable development as a balance between economic, social and environmental dimensions, in combination with digital solutions, contributes to facilitating the optimization of resources, improving social services and reducing the ecological footprint, while at the same time creating prerequisites for innovative business models.

The analysed opportunities for the integration of technologies such as artificial intelligence, the Internet of Things and blockchain highlight their potential to transform business processes, increase productivity and enhance market differentiation, with synergy with sustainable practices strengthening the strategic positions of economic structures.

However, challenges such as technological and financial barriers, skills shortages and regulatory constraints require targeted strategies that include modular approaches, financial partnerships, retraining and compliance with legal requirements, which is essential to overcome inequalities and ensure equal access to digital innovation.

The proposed recommendations for process optimization through lean digital management, effective resource management with Big Data analysis, blockchain implementation for transparency, a two-phase approach to transformation, and integration of ESG criteria provide a practical framework that not only helps overcome the identified barriers but also supports long-term sustainability and competitiveness.

In conclusion, the success of digital transformation depends on an integrated approach that combines technological innovation with sustainable development policies, so that economic entities can successfully adapt to global challenges in line with the UN goals and the growing expectations of society.

References

- Angelov, M. (2016). Challenges in integrating the concept of sustainable development at the micro level. *Eastern Academic Journal*, (4), 30–49.
- Bliznakov, G. (1995). *Where to, man?* Sofia: Marin Drinov.
- International Seminar on Institutional Foundations for Environmental Protection in Bulgaria. (1992). Proceedings (p. 10).
- Penchev, P. (1993). Sustainable development – a historical imperative, a national goal and a strategy of Bulgaria. In *Sustainable development. New Bulgaria first in the new world*. Sofia.
- Penchev, P., & Pencheva, M. (2017). Sustainable development – theoretical and practical dimensions. *Yearbook of DA Tsenov Academy of Economics*, 1(1), 69–120.
- Anderson, P., & Tushman, ML (1990). Technological discontinuities and dominant designs: A cyclical model of technological change. *Administrative Science Quarterly*, 35, 604–633.
- Andriole, SJ (2017). Five myths about digital transformation. *MIT Sloan Management Review*, 58, 20–22.
- Besson, P., & Rowe, F. (2012). Strategizing information systems-enabled organizational transformation: A transdisciplinary review and new directions. *Journal of Strategic Information Systems*, 21, 103–124.
- Bloomberg, J. (2018, April 29). Digitization, digitalization, and digital transformation: Confuse them at your peril. *Forbes*.
<https://www.forbes.com/sites/jasonbloomberg/2018/04/29/digitization-digitalization-and-digital-transformation-confuse-them-at-your-peril>
- Brundtland, GH (1987). *Our common future*. United Nations.
- Cha, KJ, Hwang, T., & Gregor, S. (2015). An integrative model of IT-enabled organizational transformation: A multiple case study. *Management Decision*, 53, 1755–1770.
- Christensen, CM, & Raynor, ME (2003). Why hard-nosed executives should care about management theory. *Harvard Business Review*, 81, 66–75.
- Cui, M., & Pan, SL (2015). Developing focal capabilities for e-commerce adoption: A resource orchestration perspective. *Information & Management*, 52(2), 200–209.
- Deloitte. (2018). *Digital enablement: Turning your transformation into a successful journey*. https://www2.deloitte.com/content/dam/Deloitte/ie/Documents/Technology/IE_C_HC_campaign.pdf
- Deloitte. (2022). *The future of automation: Trends and insights*.
- Deloitte. (2023). *Digital business models: Trends and opportunities*.
- European Commission. (2019). *Digital transformation*.
https://ec.europa.eu/growth/industry/policy/digital-transformation_en
- European Commission. (2022a). *Digital services act and general data protection regulation: Implications for business*.
- European Commission. (2022b). *Horizon Europe: Funding opportunities for digital transformation*.
- Frey, CB, & Osborne, MA (2017). The future of employment: How susceptible are jobs this computerization? *Technological Forecasting and Social Change*, 114, 254–280.
- Guth, WD, & Ginsberg, A. (1990). Guest editors' introduction: Corporate entrepreneurship. *Strategic Management Journal*, 11, 5–15.
- Hansen, R., & Sia, SK (2015). Hummel's digital transformation towards omnichannel retailing: Key lessons learned. *MIS Quarterly Executive*, 14(2), 51–66.
- Hart, P., & Rodgers, W. (2023). Competition, competitiveness, and competitive advantage in higher education institutions: A systematic literature review. *Studies in Higher Education*, 49, 1–25. <https://doi.org/10.1080/03075079.2023.2293926>
- Hess, T., Matt, C., Benlian, A., & Wiesböck, F. (2016). Options for formulating a digital transformation strategy. *MIS Quarterly Executive*, 15(2), 123–139.

- Horlacher, A., Klärner, P., & Hess, T. (2016, August). Crossing boundaries: Organization design parameters surrounding CDOs and their digital transformation activities. In *Proceedings of the Americas Conference him/her Information Systems* (San Diego, CA).
- International Energy Agency. (2023). *Energy technology perspectives*.
- Ismail, MH, Khater, M., & Zaki, M. (2017). *Digital business transformation and strategy: What do we know so far?* University of Cambridge, Cambridge Service Alliance. https://cambridgeservicealliance.eng.cam.ac.uk/resources/Downloads/Monthly%20Papers/2017NovPaper_Mariam.pdf
- Johnson, M. (2010). Barriers this innovation adoption: A study of e- markets. *Industrial Management & Data Systems*, 110(2), 157–174.
- Karimi, J., & Walter, Z. (2015). The role of dynamic capabilities in responding this digital disruption: A factor-based study of the newspaper industry. *Journal of Management Information Systems*, 32(1), 39–81.
- Li, L., Su, F., Zhang, W., & Mao, J.Y. (2017). Digital transformation by SME entrepreneurs: A capability perspective. *Information Systems Journal*, 28(6), 1129–1157.
- Llopis, J., Gonzalez, MR, & Gasco, JL (2004). Transforming the company for the digital era: An organizational effort towards an E- culture. *Human Systems Management*, 23(4), 213–225.
- Matt, C., Hess, T., & Benlian, A. (2015). Digital transformation strategies. *Business & Information Systems Engineering*, 57(5), 339–343.
- McKinsey & Company. (2022). *The internet of things: Catching up this an accelerating opportunity*.
- McKinsey & Company. (2023). *The future of digital transformation: Opportunities and challenges*.
- Nadkarni, S., & Prügl, R. (2021). Digital transformation: A review, synthesis and opportunities for future research. *Management Review Quarterly*, 71, 233–341. <https://doi.org/10.1007/s11301-020-00185-7>
- OECD. (2018). *Going digital in a multilateral world*. <https://www.oecd.org/going-digital/C-MIN-2018-6-EN.pdf>
- OECD. (2021). *The digital transformation of SMEs*.
- Piccinini, E., Hanelt, A., Gregory, R., & Kolbe, L. (2015, December). Transforming industrial business: The impact of digital transformation him/her automotive organizations. In *Proceedings of the International Conference him/her Information Systems* (Fort Worth, TX).
- Porter, ME, & Heppelmann, JE (2014). How smart, connected products are transforming competition. *Harvard Business Review*.
- Resca, A., Za, S., & Spagnoletti, P. (2013). Digital platforms as sources for organizational and strategic transformation: A case study of the Midblue project. *Journal of Theoretical and Applied Electronic Commerce Research*, 8(2), 71–84.
- Rice, MP, O'Connor, GC, Peters, LS, & Morone, JG (1998). Managing discontinuous innovation. *Research - Technology Management*, 41(3), 52–58.
- Schwab, K. (2016). *The fourth industrial revolution*. World Economic Forum.
- Schwertner, K. (2017). Digital transformation of business. *Trakia Journal of Sciences*, 15(1), 388–393. <https://doi.org/10.15547/tjs.2017.s.01.065>
- Singh, A., & Hess, T. (2017). How chief digital officers promote the digital transformation of their companies. *MIS Quarterly Executive*, 16(1), 1–17.
- Teece, DJ (2007). Explaining dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350.
- Tushman, ML, & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly*, 31, 439–465.
- UNESCO. (2021). *Reimagining our future together: A new social contract for education*.
- Utterback, JM (1994). *Mastering the dynamics of innovation*. Harvard Business School Press.
- Verina, N., & Titko, J. (2019). Digital transformation: Conceptual framework. In *Contemporary Issues in Business, Management and Economics Engineering'2019* (pp. 1–10). Vilnius Gediminas Technical University. <https://doi.org/10.3846/cibmee.2019.073>
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>
- Westerman, G., Calm ejane, C., Bonnet, D., Ferraris, P., & McAfee, A. (2011). *Digital transformation: A roadmap for billion-dollar organizations*. MIT Center for Digital Business and Capgemini Consulting.
- World Bank. (2023). *Digital development overview*.
- World Economic Forum. (2023a). *The future of jobs report*
- World Economic Forum. (2023b). *The global competitiveness report*
- Yeow, A., Soh, C., & Hansen, R. (2018). Alignment with new digital strategy: A dynamic capabilities approach. *Journal of Strategic Information Systems*, 27(1), 43–58.
- Zammuto, RF, Griffith, TL, Majchrzak, A., Dougherty, DJ, & Faraj, S. (2007). Information technology and the changing fabric of organization. *Organization Science*, 18(5), 749–762.

Zeng, Q., Chen, W., & Huang, L. (2008). E- business transformation: An analysis framework based him/her critical organizational dimensions. *Tsinghua Science and Technology*, 13(3), 408–413.

PUBLIC INFRASTRUCTURE AND LOCAL LEGAL GOVERNANCE

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Abstract

Local development and the improvement of citizens' quality of life are closely linked to the effectiveness of public infrastructure and the legal framework governing local governance. Local government institutions play a crucial role in planning, managing, and monitoring public services while ensuring transparency, accountability, and equal access for citizens.

This paper examines the relationship between public infrastructure and local legal governance, emphasizing the role of institutional and regulatory frameworks in improving quality of life at the local level. The study is part of the research project “Public Infrastructure and Quality of Life Index for the Municipalities of the Elbasan Region”, which aims to develop a standardized index for measuring and monitoring infrastructure conditions and their impact on citizens' well-being.

The research methodology combines community surveys, official statistical data, and information collected from local government institutions. The proposed index includes several key dimensions of quality of life, such as public infrastructure and services, economic opportunities, education, healthcare, security, and environmental quality.

The findings aim to contribute to the academic discussion on local governance and to provide evidence-based policy recommendations for improving infrastructure planning and public service delivery at the local level.

Keywords: Public Infrastructure, Local Governance, Quality of Life, Evidence-Based Policy, Local Government, Sustainable Local Development

1. Introduction

Local development and the improvement of citizens' quality of life are closely linked to the effective functioning of public infrastructure and the quality of local governance. Public infrastructure encompasses a wide range of services and facilities, including transportation,

water and energy supply, education, healthcare, and social services, all of which directly influence citizens' well-being and the economic development of local communities. Previous studies have demonstrated that investments in infrastructure and improvements in public services significantly contribute to economic growth and to better living conditions for the population (Calderón & Servén, 2010).

At the same time, the way local governance is organized and implemented plays a crucial role in the management and distribution of these services. Local government institutions are responsible for planning and administering a considerable share of public infrastructure while ensuring equal and adequate access to services for citizens. For this reason, the legal and institutional framework regulating local governance constitutes a fundamental element in guaranteeing public service delivery and the effective implementation of local development policies (Shah, 2006).

Contemporary literature on economic and social development increasingly emphasizes the importance of using standardized indicators and indexes to measure well-being and quality of life. Development measurement cannot rely solely on economic indicators but should also include social, institutional, and environmental dimensions that influence citizens' daily lives (Stiglitz, Sen, & Fitoussi, 2009). In this context, international organizations such as the OECD have developed various models for assessing quality of life, incorporating indicators related to public services, environmental conditions, security, and governance (OECD, 2013).

In Albania, the decentralization process and the territorial reform have expanded the responsibilities of local government institutions in the provision of public services and the planning of local development. However, assessing the level of public infrastructure and its impact on citizens' quality of life remains limited due to the lack of standardized instruments for measuring and analyzing these indicators at the local and regional levels.

Within this context, this study aims to analyze the relationship between public infrastructure and local legal governance, focusing on the case of the Elbasan region. The study is part of the research project “*Public Infrastructure and Quality of Life Index for the Municipalities of the Elbasan Region*,” developed within the Scientific Research Center for Research and Development in Law and Economics at the Faculty of Business and Law, University of Elbasan “Aleksandër Xhuvani.” The project seeks to develop a standardized index for measuring and monitoring infrastructure conditions and citizens' well-being at the local level.

By constructing this index and analyzing data collected from institutional sources and community surveys, the study aims to contribute to the literature on local governance and to provide recommendations for improving public policies and infrastructure investment planning at the local level.

2. Literature Review

International literature on economic and social development highlights the significant role of public infrastructure in improving quality of life and promoting sustainable development. Public infrastructure such as transportation systems, energy supply, public utilities, education, and healthcare services are considered essential factors for the effective functioning of the economy and for enhancing citizens' well-being. Several studies have demonstrated that

investments in infrastructure significantly contribute to economic growth and help reduce social inequalities, particularly in developing countries (Calderón & Servén, 2010).

A substantial body of literature also focuses on the role of governance and legal frameworks in the implementation and management of infrastructure projects. According to Yescombe (2014), infrastructure projects require well-defined institutional and contractual structures in order to ensure efficiency and minimize financial and institutional risks. Similarly, Delmon (2017) emphasizes that public-private partnerships (PPPs) represent an important mechanism for financing and managing infrastructure projects, facilitating cooperation between public authorities and private sector actors.

Within legal scholarship, the regulation of public procurement and infrastructure contracts is considered a key element for ensuring transparency and efficiency in the use of public resources. Arrowsmith (2014) argues that public procurement systems are built upon fundamental principles such as competition, transparency, and institutional accountability. In a similar perspective, Trepte (2011) highlights that procurement regulation plays an important role not only in economic efficiency but also in promoting good governance and strengthening the rule of law.

International organizations have also developed analytical frameworks and indicators for assessing infrastructure governance and the quality of public service delivery. The Organisation for Economic Co-operation and Development (OECD) has developed infrastructure governance indicators aimed at evaluating how public institutions plan, finance, and monitor infrastructure investments (OECD, 2021). Similarly, the World Bank emphasizes the importance of strong legal and institutional frameworks for the successful implementation of sustainable infrastructure projects and for improving public service delivery (World Bank, 2023).

Another important strand of literature focuses on the development of indicators and indexes used to measure well-being and quality of life. According to Stiglitz, Sen, and Fitoussi (2009), the assessment of economic and social progress should adopt a multidimensional approach that includes not only economic indicators but also social, institutional, and environmental factors that influence people’s daily lives. In this context, the OECD has developed models for measuring quality of life that include various dimensions such as public services, education, healthcare, environmental quality, and security (OECD, 2013).

However, despite the existence of international frameworks and models for assessing quality of life and infrastructure governance, empirical studies that analyze these indicators at the local level remain relatively limited, particularly in specific regional contexts. In Albania, research addressing the relationship between public infrastructure and quality of life at the municipal level is still scarce and often relies mainly on general statistical data.

Within this context, the research project “Public Infrastructure and Quality of Life Index for the Municipalities of the Elbasan Region” aims to contribute to this field by developing a standardized index for measuring infrastructure conditions and citizens’ well-being at the local level. The study focuses on several key dimensions of quality of life, including public infrastructure and services, economic opportunities, education, healthcare, security, and environmental quality.

By providing an empirical analysis based on locally collected data, the study seeks to address an existing gap in the literature and contribute to the academic discussion on local governance, public infrastructure, and sustainable local development.

3. Methodology

This study adopts a quantitative and analytical research approach aimed at assessing the relationship between public infrastructure and quality of life at the local level. The research is conducted within the framework of the project “Public Infrastructure and Quality of Life Index for the Municipalities of the Elbasan Region,” developed by the Scientific Research Center for Research and Development in Law and Economics at the Faculty of Business and Law, University of Elbasan “Aleksandër Xhuvani”.

The main objective of the research is to develop a composite index that measures public infrastructure conditions and their impact on citizens’ quality of life in selected municipalities of the Elbasan region. The study focuses on several municipalities within the region, aiming to provide a comparative analysis of infrastructure development and public service delivery at the local level.

The methodological framework of the study is based on the construction of a multidimensional index that incorporates several key indicators related to infrastructure and quality of life. The selected dimensions include public infrastructure and services, economic opportunities, housing conditions, education, healthcare, security, and environmental quality. These dimensions reflect the multidimensional nature of well-being and follow international approaches to measuring quality of life (Stiglitz, Sen, & Fitoussi, 2009; OECD, 2013).

Data collection for the study is based on multiple sources. Primary data are gathered through structured questionnaires administered to citizens in the selected municipalities, aiming to capture their perceptions and experiences regarding public infrastructure and public service delivery. In addition, secondary data are collected from official statistical sources and local government institutions, providing objective indicators related to infrastructure development and socio-economic conditions.

The collected data are processed and analyzed using quantitative analytical methods in order to construct the composite index. The methodology follows established approaches for the development of composite indicators, which involve the identification of relevant indicators, data normalization, and the aggregation of indicators into a single index that reflects overall infrastructure conditions and quality of life levels.

By combining perception-based data from citizens with official statistical information, the methodology aims to provide a comprehensive assessment of infrastructure performance and its impact on local well-being. This approach allows for the identification of strengths and weaknesses in public service provision and offers a valuable evidence-based tool for supporting local decision-making and policy planning.

4. Empirical Framework

4.1 Structure of the Public Infrastructure and Quality of Life Index

In contemporary studies on local development and citizens’ well-being, the use of composite indices is considered an important analytical tool for assessing different dimensions of social

and economic development. Composite indices allow the integration of a large number of indicators into a single analytical framework, facilitating the interpretation and comparison of data across territorial units or time periods (Nardo et al., 2008).

Within the framework of this study, a multidimensional index has been developed to assess the condition of public infrastructure and its impact on citizens' quality of life in the municipalities of the Elbasan region. The structure of the index is based on a conceptual approach that considers quality of life as a complex and multidimensional phenomenon influenced by economic, social, and institutional factors.

In line with methodological approaches commonly used in international studies on well-being and local development, the index includes several key dimensions directly related to living conditions and the functioning of public services at the local level. The first dimension refers to public infrastructure and services, including access to road networks, water and energy supply, waste management, and municipal services. This dimension is widely recognized as one of the most important factors influencing the functioning of communities and the overall quality of life of citizens (United Nations, 2022).

Additional dimensions incorporated in the index include economic opportunities, education, healthcare services, public safety, and environmental quality. The inclusion of these dimensions aims to provide a comprehensive assessment of citizens' well-being and the factors that influence local development. The literature on social development measurement emphasizes that the assessment of well-being should incorporate a broad range of indicators reflecting not only material living conditions but also the quality of institutions and public service delivery (OECD, 2022).

The selection of indicators has been conducted based on international literature on quality of life measurement and infrastructure governance, while also taking into consideration the availability of data at the local level. This process aims to ensure that the constructed index is not only methodologically robust but also applicable in the empirical analysis of infrastructural and socio-economic conditions in the region under study.

In this way, the structure of the index provides an analytical basis for assessing the state of public infrastructure and its influence on citizens' quality of life. At the same time, the index can serve as a useful tool for local government institutions in identifying development priorities and improving the planning of public policies and infrastructure investments at the local level.

4.2 Data Collection Instruments and Analytical Approach

The empirical component of this study relies on both primary and secondary data sources in order to provide a comprehensive assessment of public infrastructure conditions and their relationship with citizens' quality of life at the local level. The combination of different data sources allows for a more balanced and reliable analysis by integrating objective statistical information with citizens' perceptions regarding public services and infrastructure performance.

Primary data were collected through a structured questionnaire designed within the framework of the research project. The questionnaire was developed to capture citizens' perceptions and experiences related to the quality, accessibility, and functionality of public infrastructure and local public services. The survey includes several groups of questions corresponding to the

main dimensions of the index, such as infrastructure and public services, economic opportunities, education, healthcare, security, and environmental conditions. This approach allows the study to incorporate the subjective evaluation of citizens, which is increasingly considered an important component in the measurement of quality of life and public service performance.

In addition to survey data, the study also uses secondary data obtained from official statistical sources and institutional reports. These data include socio-economic and infrastructural indicators provided by national statistical institutions and local government authorities. The use of secondary data helps complement citizens' perceptions with objective indicators related to infrastructure availability, service provision, and socio-economic conditions at the municipal level.

The analytical approach combines descriptive and comparative analysis in order to examine the different dimensions of infrastructure and quality of life across the municipalities included in the study. The collected data are organized according to the selected indicators and dimensions of the index, enabling a structured evaluation of infrastructure performance and local living conditions.

By integrating survey-based information with institutional data, the study aims to provide a multidimensional assessment of public infrastructure and its broader implications for local development and governance. This analytical framework supports the identification of key challenges and development priorities, offering a valuable basis for evidence-based policymaking and improved infrastructure planning at the local level.

4.3 Comparative Perspectives on Public Infrastructure Governance

International research on infrastructure governance highlights that the quality of institutional planning and management of infrastructure investments plays a crucial role in regional economic and social development. In this context, many countries have developed analytical tools and governance frameworks aimed at evaluating the performance and sustainability of public infrastructure systems.

One of the most widely used approaches involves the development of infrastructure governance indicators that assess the entire investment cycle, including strategic planning, financing, implementation, and monitoring of public infrastructure projects. According to the OECD, governments that apply structured evaluation mechanisms for infrastructure investments are better able to identify development priorities and improve the efficiency of public expenditure (OECD, 2023).

Similarly, studies conducted by the World Bank emphasize the importance of regulatory frameworks and public procurement systems in ensuring transparency and efficiency in infrastructure development. Effective procurement mechanisms and monitoring processes are considered essential for reducing institutional risks and improving the quality and sustainability of public services provided to citizens (World Bank, 2021).

The literature on infrastructure project management also underlines the importance of coordination among public institutions, private sector actors, and local communities in the successful delivery of infrastructure projects. Flyvbjerg (2017) argues that infrastructure initiatives supported by transparent decision-making processes and well-defined institutional

arrangements are more likely to achieve long-term development outcomes and contribute to sustainable territorial development.

Within this comparative perspective, the development of analytical tools for measuring public infrastructure and quality of life at the local level represents an important step toward strengthening local governance and improving evidence-based policymaking. The development of the *Public Infrastructure and Quality of Life Index for the Municipalities of the Elbasan Region* aims to contribute to this discussion by providing a methodological framework for assessing infrastructure conditions and supporting policy planning at the local level.

5. Discussion

The analysis of public infrastructure and quality of life at the local level represents an important element for understanding territorial development dynamics and improving public decision-making processes. International literature emphasizes that the effective management of public infrastructure requires not only financial investment but also well-functioning institutions and a stable legal framework that enables strategic planning and institutional coordination (Estache & Wren-Lewis, 2009).

In this context, the development of an index for assessing public infrastructure and quality of life at the local level represents an important analytical tool for supporting evidence-based public policies. Composite indices allow the integration of a large number of indicators into a single analytical framework and provide opportunities for comparing the performance of territorial units across different dimensions of development (Nardo et al., 2008).

In the case of the Elbasan region, the development of such an index may contribute to identifying key challenges related to public infrastructure and service delivery at the municipal level. At the same time, this analytical tool can assist local government institutions in identifying development priorities and improving infrastructure investment planning.

From the perspective of local legal governance, the relevance of analyzing public infrastructure is also related to how public institutions implement mechanisms of transparency, accountability, and public resource management. The regulation of public procurement and infrastructure project management represents a fundamental element for ensuring the efficient use of public funds and for improving the quality of public services provided to citizens (Arrowsmith, 2014).

Within this framework, the development of analytical instruments for measuring the performance of public infrastructure and quality of life can contribute to strengthening local governance and improving decision-making processes at the municipal level. Such analyses provide a structured basis for evaluating infrastructure conditions and for identifying more effective policies aimed at supporting sustainable local development.

6. Conclusions

This study examined the relationship between public infrastructure and quality of life at the local level by focusing on the development of an analytical index designed to assess infrastructural conditions and citizens' well-being in the municipalities of the Elbasan region. The study adopted a multidimensional approach that integrates social, economic, and institutional indicators in order to provide a comprehensive evaluation of local development.

The theoretical and methodological analysis suggests that public infrastructure represents a key determinant of citizens' quality of life and sustainable community development. Adequate infrastructure systems facilitate access to essential public services, support economic activity, and contribute to improving living standards at the community level. At the same time, effective infrastructure governance requires well-functioning institutions, transparent decision-making mechanisms, and a legal framework capable of ensuring the efficient and accountable use of public resources.

The development of an index measuring public infrastructure and quality of life provides a valuable analytical tool for assessing local development and supporting evidence-based policymaking. Such an instrument may assist local government institutions in identifying infrastructural challenges, setting development priorities, and improving strategic planning processes related to public investments and service delivery.

Furthermore, the proposed analytical framework may serve as a reference for future studies focused on evaluating infrastructure performance and citizens' well-being in other regions. By providing a structured methodological approach, the study contributes to the academic literature on local governance and infrastructure development and highlights the importance of integrating empirical data into public policy design and local development strategies.

7. Recommendations

Based on the analysis conducted in this study, several recommendations can be proposed for improving public infrastructure governance and local development planning. Strengthening institutional capacities and improving analytical tools for evaluating infrastructure performance are essential for ensuring sustainable territorial development and enhancing the quality of life of citizens.

First, local government institutions should develop more structured mechanisms for monitoring and evaluating public infrastructure by using measurable indicators and analytical tools capable of identifying investment priorities. The establishment of systematic evaluation frameworks would allow local authorities to better assess infrastructure performance and allocate resources more efficiently.

Second, strengthening transparency and accountability in the management of infrastructure projects is essential for improving the efficiency of public expenditure and increasing public trust in government institutions. Transparent procurement procedures, clear reporting mechanisms, and effective oversight systems can contribute to reducing institutional risks and improving the management of public investments.

Third, local development planning processes should rely more extensively on data-driven analysis and on participatory mechanisms involving local communities in order to better reflect citizens' needs. Engaging local stakeholders and civil society organizations in planning processes may help ensure that infrastructure investments address the most pressing social and economic challenges faced by local communities.

Finally, the development and use of composite indices for measuring public infrastructure and quality of life can significantly support evidence-based policymaking and contribute to strengthening local governance in Albania. Such analytical tools may also facilitate

comparative analysis between municipalities and provide valuable insights for future research on infrastructure governance and regional development.

References

- Arrowsmith, S. (2014). *The law of public and utilities procurement*. Sweet & Maxwell.
- Baker, E., Bowman, S., & Morrison, P. (2019). *FIDIC contracts: Law and practice*.
- Bing, L., Akintoye, A., Edwards, P., & Hardcastle, C. (2005). Risk allocation in public–private partnership projects. *International Journal of Project Management*, 23(1), 25–35.
- Born, G. B. (2021). *International commercial arbitration* (3rd ed.). Wolters Kluwer.
- Calderón, C., & Servén, L. (2010). Infrastructure and economic development in Sub-Saharan Africa. *Journal of African Economies*, 19(Suppl. 1), i13–i87.
- Delmon, J. (2017). *Public-private partnership projects in infrastructure: An essential guide for policy makers*. Cambridge University Press.
- Dolzer, R., & Schreuer, C. (2012). *Principles of international investment law* (2nd ed.). Oxford University Press.
- European Union Agency for Cybersecurity (ENISA). (2023). *Threat landscape for critical infrastructure*.
- European PPP Expertise Centre (EPEC). (2023). *PPPs in Europe: Annual market update*.
- Estache, A., & Wren-Lewis, L. (2009). Toward a theory of regulation for developing countries. *Journal of Economic Literature*, 47(3), 729–770.
- European Commission. (2021). *Guidance on successful public-private partnerships*.
- FIDIC. (2017). *FIDIC contracts guide*. Fédération Internationale Des Ingénieurs-Conseils.
- Flyvbjerg, B. (Ed.). (2017). *The Oxford handbook of megaproject management*. Oxford University Press.
- Gómez-Lobo, A., & Serebrisky, T. (2016). *Contracting out infrastructure services: Theory and practice*. World Bank.
- International Chamber of Commerce (ICC). (2021). *International arbitration survey*.
- International Chamber of Commerce (ICC). (2023). *Next-generation infrastructure frameworks*.
- Kirsch, S. (2018). *Mining capitalism: The relationship between corporations and their critics*. University of California Press.
- Menkel-Meadow, C. (2022). *Negotiation and mediation: Theory, policy, and practice*.
- Nardo, M., Saisana, M., Saltelli, A., Tarantola, S., Hoffman, A., & Giovannini, E. (2008). *Handbook on constructing composite indicators: Methodology and user guide*. OECD Publishing.
- Organisation for Economic Co-operation and Development (OECD). (2013). *Better Life Index*.
- Organisation for Economic Co-operation and Development (OECD). (2021). *Infrastructure governance indicators*.
- Organisation for Economic Co-operation and Development (OECD). (2022). *Government at a glance 2022*.
- Organisation for Economic Co-operation and Development (OECD). (2023). *Infrastructure governance indicators annual report*.
- Shah, A. (Ed.). (2006). *Local governance in developing countries*. World Bank.
- Stiglitz, J. E., Sen, A., & Fitoussi, J.-P. (2009). *Report by the Commission on the Measurement of Economic Performance and Social Progress*.
- Trepte, P. (2011). *Regulating procurement: Understanding the ends and means of public procurement regulation*. Oxford University Press.
- United Nations. (2022). *Guidelines for people-centered infrastructure development*.
- United Nations Commission on International Trade Law (UNCITRAL). (2021). *Model law on public procurement*.
- World Bank. (2020). *Procurement frameworks for infrastructure projects*.
- World Bank. (2021). *Infrastructure governance and procurement frameworks*.
- World Bank. (2023). *Legal frameworks for sustainable infrastructure*.
- World Economic Forum. (2023). *Digital transformation of infrastructure delivery*.
- Yescombe, E. R. (2014). *Principles of project finance* (2nd ed.). Academic Press.

EXAMINATION OF THE DIGITAL TRANSFORMATION PERFORMANCE OF THE VISEGRAD COUNTRIES USING INTEGRATED LOPCOW-APLOCO METHODS

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Abstract

In this study, the digital transformation performance of the Visegrad countries is analysed using an integrated LOPCOW-APLOCO decision support system. The study examines four main criteria from the DESI 2022 report and four alternative countries from the Visegrad Group. The criteria were first weighted using the LOPCOW method and then the countries were ranked using the APLOCO method. As a result of the analysis, Human Capital was found to be the criterion with the highest weight, while Connectivity had the lowest weight. These findings indicate that the level of digital skills in society and the presence of ICT specialists play a critical role in the digital transformation process. In addition, the integration of digital technologies into business processes emerges as an important determinant of digital development. According to the ranking results obtained through the APLOCO method, the Czech Republic ranked first, while Slovakia ranked last. This demonstrates that there are significant differences in digital development levels among the Visegrad countries.

Keywords: Digital Transformation, LOPCOW, APLOCO, Visegrad Countries

Introduction

Digital transformation is one of the key factors determining the competitiveness of countries in terms of economic growth, the efficiency of public services, and the enhancement of social welfare. The digitalization process that began with the Industry 4.0 era has profoundly transformed social structures and, consequently, has fundamentally reshaped and redesigned business structures (Yuan et al, 2021). Agustian et al. (2023) define digital transformation as a comprehensive process that fundamentally transforms business models, operations, and value creation processes through digital technologies.

Countries aiming for sustainable growth do not consider digital transformation merely as technological progress. Rather, they evaluate it as a fundamental instrument for the transition to a knowledge-based economy and place it at the center of their national development strategies (Antoniuk and Davydenko, 2024). In this context, the integration of digital technologies into the economy and public administration increases countries' innovation capacities, improves productivity, and supports sustainable development (Kara, 2025).

The European Union proposes various policies to accelerate and expand the digital transformation process (Petkovski and Vranic, 2026). Accordingly, several performance measurement systems have been developed (European Commission, 2020). The Digital Economy and Society Index (DESI) developed by the European Union is one of the most important indicators used to evaluate the digital performance of member states. DESI measures the level of digital transformation of countries through dimensions such as connectivity, human capital, digital public services, and the integration of digital technologies by businesses (DESI, 2022). The comparative analysis of the digital transformation performance of these countries provides important insights for both policymakers and researchers.

Digitalization has become a decisive factor in the economic and social development of countries, particularly in the context of global competition. Following the COVID-19 pandemic, the importance of digital infrastructure, remote working, e-government applications, and digital services has increased significantly (Çınaroğlu, 2022). Digital transformation is a process driven by the development of digital technologies, causing changes in all aspects of human life (Stolterman & Fors, 2006). In this transformation, life processes of societies, the structure of organizations, relationships between individuals and communities, and the economic structure of markets undergo significant changes. Therefore, it is important for individuals, societies, organizations, and countries to adapt to this transformation process (Lucas et al., 2013).

In particular, analyses conducted using Multi-Criteria Decision Making (MCDM) methods allow the simultaneous evaluation of multiple criteria and provide more comprehensive results. In this study, the digital transformation performances of the Visegrád member countries are analyzed through the integrated use of the relatively newly proposed LOPCOW method and APLOCO method.

The main motivation of this study is to analyze the digital transformation performance of European Union countries using DESI 2022 data within a multi-criteria decision-making framework and to obtain more robust and comparable results through the integrated use of the LOPCOW and APLOCO methods. This approach will make it possible to identify countries that demonstrate strong and weak performance in the field of digital transformation.

A review of the literature reveals that numerous studies have evaluated the digital transformation performance of European Union countries. First, it is observed that in most studies evaluating the digital transformation performance of European Union countries, the integrated use of different methods is limited. Analyses based on a single method may create certain constraints in terms of the robustness of the results. Moreover, the datasets or criteria used in some studies do not cover all dimensions of digital transformation. In addition, no studies have been found in the literature in which the LOPCOW method and APLOCO method are used together.

In this context, the present study aims to fill this gap in the literature by examining the digital transformation performances of the Visegrád Group countries within the scope of Digital Economy and Society Index (DESI) 2022 data, based on the criteria of Connectivity, Digital Public Services, Human Capital, and Integration of Digital Technology, and by applying the LOPCOW and APLOCO methods in an integrated manner. Thus, it is intended to contribute to the literature both methodologically and in terms of practical application.

Methodology

Identification of Indicators

Connectivity (C_1): Connectivity measures the development and quality of broadband infrastructure in a country. It includes indicators related to the availability, coverage, and uptake of fixed and mobile broadband services, as well as the deployment of high-speed

and very high-capacity networks. This dimension evaluates how accessible and affordable internet connectivity is for households and businesses.

Digital Public Services (C₂): Digital Public Services evaluates the level of digitalization of public administrations. It focuses on the availability and usage of e-government services, digital public services for citizens and businesses, open data initiatives, and e-health services. This dimension assesses how effectively governments provide services through digital platforms.

Human Capital (C₃): Human Capital measures the digital skills of the population and the availability of information and communication technology (ICT) specialists in the labor force. It includes indicators such as basic and advanced digital skills among individuals, the share of ICT specialists in employment, and the development of digital competencies within society.

Integration of Digital Technology (C₄): Integration of Digital Technology measures the extent to which businesses adopt and use digital technologies in their operations. It includes indicators related to the use of cloud computing, big data, social media, artificial intelligence, enterprise resource planning (ERP) systems, and e-commerce. This dimension evaluates how effectively firms integrate digital technologies into their business processes and economic activities.

Table 2. Data set

Countries	Connectivity (C)	Digital Public Services (DPS)	Human Capital (HC)	Integration of Digital Technology (IDT)
Czech R.	52,690	64,456	45,590	33,838
Hungary	57,604	57,401	38,448	21,585
Poland	46,516	55,763	37,031	22,881
Slovakia	49,823	51,998	44,129	27,833

Source: DESI (2022); Zarali et al. (2024)

LOPCOW Method

The LOPCOW method is a criterion weighting approach developed by Ecer and Pamucar in 2022.

The method consists of three steps. First, an internal decision matrix is created, consisting of m alternatives and n criteria, to identify and solve the decision problem.

Step 1.1: Creating the normalized decision matrix

$$r_{ij} = \frac{x_{ij} - x_j^{\min}}{x_j^{\max} - x_j^{\min}} \text{ for benefit-oriented criteria} \quad (1)$$

$$r_{ij} = \frac{x_j^{\max} - x_{ij}}{x_j^{\max} - x_j^{\min}} \text{ for cost-oriented criteria} \quad (2)$$

Step 1.2: Creating the PVij Matrix of Percentage Values for Each Criterion

$$PV_{ij} = \left| \ln \left(\frac{\sqrt{\frac{\sum_{i=1}^m r_{ij}^2}{m}}}{\sigma} \right) 100 \right|$$

(3)

Step 1.3: Calculating Objective Weights (W_j)

$$w_j = \frac{PV_{ij}}{\sum_{i=1}^n PV_{ij}}$$

(4)

APLOCO Method (Approach of Logarithmic Concept)

The steps of the method are presented as follows (Bulut, 2018);

Step 2.1. Creation of the decision matrix

$$x_{ij} = \begin{pmatrix} \begin{pmatrix} x_{11} & x_{12} & \cdots & x_{1r} \\ x_{21} & x_{22} & \cdots & x_{2r} \\ \vdots & \vdots & \ddots & \vdots \\ x_{r1} & x_{r2} & \cdots & x_{cr} \end{pmatrix} \end{pmatrix}$$

(7)

Step 2.2: Calculation of the Starting Point Criteria (SPC) values

$$P_{ij} = \begin{cases} \max_i(x_{ij}) - x_{ij}; P_{ij}, & \text{if it is the maximum starting point value} \\ x_{ij} - \min_i(x_{ij}); P_{ij}, & \text{if it is the minimum starting point value} \end{cases}$$

(8)

$$P_{ij} = \begin{pmatrix} \max_i(x_{ij}) + x_{11} & \cdots & \max_i(x_{ij}) + x_{1r} \\ \vdots & \ddots & \vdots \\ \max_i(x_{ij}) + x_{c1} & \cdots & \max_i(x_{ij}) + x_{cr} \end{pmatrix}$$

(9)

$$P_{ij} = \begin{pmatrix} x_{11} - \min_i(x_{ij}) & \cdots & x_{1r} - \min_i(x_{ij}) \\ \vdots & \ddots & \vdots \\ x_{c1} - \min_i(x_{ij}) & \cdots & x_{cr} - \min_i(x_{ij}) \end{pmatrix}$$

(10)

Step 2.3: Construction of the Logarithmic Conversion (LC) Matrix

$$\ln_x = \log e \text{ ve } L_{ij} = \frac{1}{\ln(p_{ij})+2}$$

(11)

$$L_{ij} = \begin{pmatrix} \frac{1}{\ln(P_{11}+2)} & \cdots & \frac{1}{\ln(P_{1r}+2)} \\ \vdots & \ddots & \vdots \\ \frac{1}{\ln(P_{c1}+2)} & \cdots & \frac{1}{\ln(P_{cr}+2)} \end{pmatrix} \quad (12)$$

Step 2.4: Determination of the Criteria Weights (WC) and Calculation of the Weighted Logarithmic Conversion (WLC) Matrix

$$T_{ij} = \begin{pmatrix} w_1 x l_{11} & \cdots & w_1 x l_{1r} \\ \vdots & \ddots & \vdots \\ w_n x l_{c1} & \cdots & w_n x l_{cr} \end{pmatrix} \quad (13)$$

Step 2.5: Determination of the Best Alternative (BA)

$$B_j = \max(T_{ij}) \quad (14)$$

$$B_{sj} = \sum_{j=1}^n \{l_1, l_2, \dots, l_n\} \quad (15)$$

$$\alpha s_i = \sum_{j=1}^n \{t_1, t_2, \dots, t_n\} \quad (16)$$

$$\theta_i = \frac{\alpha s_i}{B_{sj}} \quad (17)$$

Results and Discussion

The criteria weights obtained as a result of the calculations performed using the LOPCOW method are presented in Table 3.

Table. 3. Criteria weights

	C_1	C_2	C_3	C_4
w_j	0,2167	0,2433	0,2764	0,2633

The criteria weights obtained using the LOPCOW method indicate the relative importance of the selected dimensions in evaluating digital performance. According to the results presented in Table 3, *Human Capital* (C_3) has the highest weight (0.2764), suggesting that digital skills, ICT specialists, and the overall digital competence of the population play the most significant role in digital transformation. This finding highlights the critical importance of human resources in effectively adopting and utilizing digital technologies. The second most important criterion is *Integration of Digital Technology* (C_4) with a weight of 0.2633, indicating that the extent to which businesses adopt and integrate digital technologies into their operations is another key determinant of digital development. *Digital Public Services* (C_2) ranks third with a weight of 0.2433, reflecting the contribution of digitalized public administration and e-government services to the overall digital ecosystem. Finally, *Connectivity* (C_1) has the lowest weight (0.2167), although it remains a fundamental component as it provides the necessary infrastructure for digital activities. Overall, the results suggest that while digital infrastructure

is important, human capital and the effective integration of digital technologies play a more decisive role in the digital transformation process.

The ranking results obtained using the APLOCO method are presented in Table 4.

Table4. Ranking of Visegrad Countries

Alternatives	M	Rank
A1 (Czech R.)	0,666	1
A2 (Hungary)	0,518	3
A3 (Poland)	0,477	2
A4 (Slovakia)	0,304	4

The ranking results obtained using the APLOCO method reveal the relative digital performance of the Visegrad countries. According to the results presented in Table 4, the Czech Republic (A1) ranks first with an M value of 0.666, indicating that it demonstrates the strongest overall performance among the Visegrád Group countries in terms of the evaluated digital criteria. This result suggests that the country has comparatively stronger capabilities in areas such as digital infrastructure, human capital, digital public services, and the integration of digital technologies. The second position is held by Poland (A3) with an M value of 0.477, showing a moderate level of digital development compared to the leading country. Although Poland performs relatively well, its performance remains below that of the Czech Republic in the evaluated dimensions. Hungary (A2) ranks third with an M value of 0.518. Despite having a higher M value than Poland, its ranking position indicates that its relative performance across the weighted criteria is slightly weaker when evaluated through the APLOCO methodology. Finally, Slovakia (A4) ranks last with an M value of 0.304, suggesting that it has the lowest overall performance among the Visegrad countries in the analyzed digital indicators.

Overall, the results indicate that there are noticeable differences in digital development levels among the Visegrad countries. While the Czech Republic stands out as the leading country in terms of digital transformation performance, Slovakia appears to lag behind the other countries in the group. These findings highlight the varying levels of digital readiness and technological integration within the region.

Conclusions

This study evaluated the digital performance of the Visegrád Group countries using a multi-criteria decision-making approach. In the analysis, the criteria were first weighted using the LOPCOW method, and then the countries were ranked using the APLOCO method based on the selected indicators derived from the Digital Economy and Society Index framework.

The results of the LOPCOW analysis revealed that Human Capital (C₃) has the highest weight among the selected criteria, followed by Integration of Digital Technology (C₄), Digital Public Services (C₂), and Connectivity (C₁). These findings indicate that the level of digital skills in society and the availability of ICT specialists play the most critical role in the digital transformation process. In addition, the integration of digital technologies into business processes also emerges as a key determinant of digital development. Although digital infrastructure is an essential prerequisite, the results suggest that the effective use of digital technologies and the development of human capital are more decisive factors for improving digital performance.

According to the ranking results obtained using the APLOCO method, the Czech Republic ranked first among the Visegrad countries, indicating the strongest overall performance in terms of the evaluated digital indicators. Poland ranked second, followed by Hungary in third place, while Slovakia ranked last. These results demonstrate that there are notable differences in the levels of digital development among the Visegrad countries.

Overall, the findings highlight the importance of strengthening digital skills and promoting the integration of digital technologies within businesses to support digital transformation. Policymakers should therefore focus not only on improving digital infrastructure but also on enhancing human capital and encouraging the adoption of digital technologies in order to achieve sustainable digital development.

References

- Agustian, K., Mubarak, E. S., Zen, A., Wiwin, W., & Malik, A. J. (2023). The impact of digital transformation on business models and competitive advantage. *Technology and Society Perspectives (TACIT)*, 1(2), 79-93.
- Antoniuk, L., & Davydenko, Y. (2024, June). Leveraging Digital Technologies for Sustainable and Inclusive Development Strategy in Leading Innovative Nations. In *7th International Conference on Economics and Social Sciences* (pp. 732-743).
- Bulut, T. (2018). A New Multi Criteria Decision Making Method: Approach of Logarithmic Concept (APLOCO). *International of Artificial Intelligence and Applications*, 9(1), 15-33.
- Çınaroğlu, E. (2022). Entropi Destekli MABAC yöntemi ile AB ülkeleri Dijital Dönüşüm Performansının Analizi. *Nevşehir Hacı Bektaş Veli Üniversitesi SBE Dergisi*, 12 (Dijitalleşme), 18-34.
- Ecer, F., & Pamucar, D. (2022). A novel LOPCOW-DOBI multi-criteria sustainability performance assessment methodology: An application in developing country banking sector. *Omega*, (112), 102690. <https://doi.org/10.1016/j.omega.2022.102690>
- European Commission, EC, (2020), International Digital Economy and Society Index, Final Report.
- European Commission, EC, (2022) Digital Economy and Society Index (DESI) <https://digital-strategy.ec.europa.eu/en/policies/desi>.
- Kara, M.A. (2025). Evaluating Information and Communication Technology (ICT) Levels in Visegrad Countries: A Performance Analysis Using MPSI-LOPCOW-BSS Framework. *International Journal of Business and Economic Studies*, 7(3), 172-187.
- Lucas, H., Agarwal, R., Clemons, E. K., El Sawy, O. A., Weber, B. (2013). Impactful Research on Transformational Information Technology: An Opportunity to Inform New Audiences. *MIS Quarterly*, 37(2), ss.371– 382.
- Petkovski, I., & Vranić, P. (2026). Evaluation of Digital Development Indexes Using MEREC and Hybrid MCDM Methods. *Journal of Information and Organizational Sciences*, 50(1), 17-43.
- Stolterman, E. and Fors, A.C. (2006). Information Technology and The Good Life. *International Federation for Information Processing Digital Library Information Systems Research*(143), ss.687-692.
- Yuan, S., Musibau, H. O., Genç, S. Y., Shaheen, R., Ameen, A., & Tan, Z. (2021). Digitalization of economy is the key factor behind fourth industrial revolution: How G7 countries are overcoming with the financing issues?. *Technological Forecasting and Social Change*, 165, 120533.
- Zarali, F., Kılıçarslan, Z. & Dumrul, Y. (2024). AB ülkelerinin dijital dönüşüm performanslarının Entropi tabanlı TOPSIS yöntemiyle değerlendirilmesi. *Erciyes Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, (69), 195-203.

EDUCATION, WOMEN'S LABOUR AND INDUSTRY 5.0: POLICY CHALLENGES FOR SUSTAINABLE GROWTH IN TÜRKİYE

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Abstract

The transition from Industry 4.0 to Industry 5.0 reflects a paradigmatic shift toward human-centered, sustainable, and inclusive models of economic development. Within this framework, women's participation in the labour market emerges as a key dimension of inclusive growth. However, despite improvements in education and employment policies, women's labour force participation in Türkiye remains below OECD averages, indicating persistent structural inequalities. At the same time, rapid digital transformation is reshaping skill demands and revealing a gendered digital skills gap that constrains women's access to high-value, technology-driven sectors. This raises critical questions about the capacity of existing policy frameworks to address the intersection of digitalization and gender inequality.

This study examines the relationship between education policies, women's employment, and the transition toward Industry 5.0 in Türkiye. Drawing on policy documents, national development plans, and labour market data, the study adopts a critical analytical approach to assess how education systems and digital skills initiatives respond to gender-based disparities. The findings suggest that current policies remain limited in addressing the structural dimensions of inequality, particularly in terms of employment quality and access to advanced digital skills. The study concludes that aligning education policies with the human-centered vision of Industry 5.0—through strengthening digital competencies and promoting gender equality in STEM—is essential for achieving inclusive and sustainable economic development.

Keywords: Industry 5.0, women's labour, education policy, digital transformation, sustainable growth, gendered digital skills gap, Türkiye

Introduction

The contemporary global economy is undergoing a profound transformation driven by rapid digitalisation and technological innovation. Advances in artificial intelligence, big data, automation, and cyber-physical systems are reshaping production processes, labour markets, and organisational structures. This digital transformation not only accelerates economic growth but also redefines the nature of work, skills, and social participation across countries.

Within this broader context, the transition from Industry 4.0 to Industry 5.0 represents a significant conceptual and practical shift in the understanding of technological progress and economic development. While Industry 4.0 primarily focused on efficiency, productivity, and the integration of digital technologies into industrial systems, Industry 5.0 expands this perspective by emphasising a human-centred, sustainable, and socially inclusive model of development (Ghobakhloo et al., 2024). In this emerging paradigm, technological advancement is expected to contribute not only to economic performance but also to social well-being, environmental sustainability, and inclusive growth.

In line with this transformation, the role of women’s labour has gained increasing importance in achieving sustainable and inclusive economic development. Industry 5.0 highlights the necessity of integrating diverse social groups into technological and economic systems, recognising that inclusivity is essential for long-term resilience and innovation (Narkhede et al., 2025). However, despite global progress in gender equality, significant disparities persist in women’s participation in the labour market, particularly in technology-driven sectors.

In the case of Türkiye, women’s labour force participation remains relatively low compared to many developed economies, despite notable improvements in educational attainment and policy initiatives aimed at increasing employment (OECD, 2025). These disparities become even more pronounced within the rapidly expanding digital economy, where access to opportunities is closely linked to digital competencies and technological skills.

One of the key challenges in this context is the persistent gendered digital skills gap, which refers to the unequal distribution of digital competencies between men and women (Halford & Savage, 2010). In Türkiye, this issue is further compounded by structural inequalities reflected in the broader concept of the digital divide, encompassing disparities in access to digital technologies, digital education, and technology-oriented career pathways (Kargın Akkoç, 2025). These inequalities may significantly limit women’s ability to participate in and benefit from digital transformation processes (Oktay Yılmaz & Ünlü, 2022).

Furthermore, technological systems themselves may reproduce existing social inequalities. Algorithmic bias in artificial intelligence systems can unintentionally reinforce gender-based discrimination, thereby deepening inequalities in employment and innovation ecosystems (Kes Erkul, 2023). At the same time, Industry 5.0 draws attention to the growing importance of the care economy, where human interaction, empathy, and social support services are central. These sectors, traditionally characterised by high levels of female employment, play a critical role in linking technological transformation with social sustainability (Kumar et al., 2025).

Another important dimension of the digital economy is the expansion of platform-based and digitally mediated forms of work. In Türkiye, such employment models may create new opportunities for flexible working arrangements that support women’s participation in the labour market. However, they may also generate new forms of precarity, including limited social protection, income instability, and fragmented career paths (Kaytan & Erdoğan, 2025).

In response to these challenges, the concept of inclusive innovation has gained increasing importance in policy discussions. This approach emphasises the need to actively involve diverse social groups in innovation processes and to address structural inequalities within technological ecosystems. In Türkiye, enhancing women’s participation in digital entrepreneurship, innovation systems, and technology-oriented sectors has therefore become a strategic priority (Akturan, 2025).

Accordingly, strengthening women’s digital competencies, increasing their representation in STEM (Science, Technology, Engineering, and Mathematics) fields, and promoting gender equality in education emerge as critical policy areas in the context of Industry 5.0 (Kasap, 2025). In this regard, the present study aims to examine the role of women’s labour in Türkiye’s transition towards Industry 5.0 by analysing the interplay between digital transformation, labour market structures, and education policies. More specifically, the study seeks to identify the structural challenges and emerging opportunities shaping women’s participation in the digital economy, and to evaluate the extent to which existing policy frameworks align with the human-centred, inclusive, and sustainable principles of Industry 5.0. Accordingly, the study addresses the following research questions:

What are the main structural barriers limiting women’s participation in the digital economy in Türkiye within the context of Industry 5.0?

How do digital transformation processes (e.g., platform work, digitalisation, algorithmic systems) reshape women’s labour market experiences in Türkiye?

To what extent do current education and employment policies in Türkiye support women’s integration into Industry 5.0-oriented sectors?

How aligned are existing policy frameworks with the principles of human-centeredness, inclusiveness, and sustainability emphasised by Industry 5.0?

What types of education-based and policy-oriented interventions are needed to promote inclusive and sustainable women’s employment in Türkiye?

From Industrial Revolutions to Industry 5.0: A Human-Centred Paradigm

The evolution of industrial revolutions reflects a continuous transformation in production systems, technological capabilities, and socio-economic structures. The First Industrial Revolution (Industry 1.0) was characterized by mechanization powered by steam energy, marking the transition from agrarian to industrial economies. The Second Industrial Revolution (Industry 2.0) introduced mass production through electricity and assembly lines, significantly increasing productivity. The Third Industrial Revolution (Industry 3.0) brought digitalization into manufacturing processes through electronics, information technologies, and automation systems. Finally, the Fourth Industrial Revolution (Industry 4.0) emphasized cyber-physical systems, artificial intelligence (AI), big data, and the Internet of Things (IoT), enabling smart, interconnected, and highly automated production environments (Koc & Teker, 2019).

Despite its technological achievements, Industry 4.0 has been criticized for prioritizing efficiency and productivity while often neglecting social and environmental concerns. Issues such as job displacement, inequality, and ecological degradation have become increasingly visible. In response to these limitations, the concept of Industry 5.0 has emerged as a transformative paradigm that seeks to rebalance the relationship between technology, society, and the environment (Ghobakhloo et al., 2024).

Industry 5.0 is not merely a continuation of Industry 4.0 but rather a normative and policy-oriented framework that redefines the purpose of industrial development. It emphasizes that technological advancement should serve broader societal goals, including human well-being, environmental sustainability, and social equity. Rather than replacing humans, Industry 5.0 promotes a collaborative relationship between humans and machines, where technological systems augment human capabilities such as creativity, empathy, and decision-making (Narkhede et al., 2025).

At the core of Industry 5.0 lie three fundamental pillars: human-centeredness, sustainability, and resilience.

Human-centeredness refers to the repositioning of humans at the centre of production systems. Unlike Industry 4.0, which largely focused on automation and efficiency, Industry 5.0 recognizes the irreplaceable value of human intelligence. It promotes human-machine collaboration in which technologies enhance rather than substitute human labour. In this context, human creativity, critical thinking, emotional intelligence, and ethical judgment become key assets. This approach also aligns with the need to improve working conditions, empower employees, and foster inclusive labour markets (Narkhede et al., 2025).

Sustainability constitutes another foundational dimension of Industry 5.0. It emphasizes the integration of environmentally responsible practices into industrial processes, including green production, efficient resource utilization, waste reduction, and circular economy principles. Industry 5.0 aims to align economic growth with ecological preservation by ensuring that industrial activities operate within planetary boundaries. This shift reflects the growing urgency of climate change, resource depletion, and environmental degradation, which require industries to adopt more responsible production and consumption patterns (Ghobakhloo et al., 2024).

Resilience focuses on the ability of economic and social systems to withstand and adapt to disruptions, such as global crises, supply chain breakdowns, or pandemics. Industry 5.0

promotes flexible, adaptive, and robust systems that can respond effectively to uncertainty. This includes rethinking supply chains, enhancing local capacities, and developing workforce skills that support adaptability and crisis management (Carminati et al., 2025).

In addition to these three pillars, several key concepts are essential for understanding the broader implications of Industry 5.0, particularly in relation to education and women’s labour. One of these is the digital divide, which refers to inequalities in access to digital technologies and infrastructure. These disparities can exist between countries, regions, socio-economic groups, and genders, limiting participation in digital economies and reinforcing existing inequalities (Heeks, 2022).

Closely related is the gendered digital skills gap, which highlights the unequal distribution of digital competencies between men and women. Women often face barriers in accessing STEM education, digital training, and technological careers, resulting in their underrepresentation in high-skilled and high-paying digital jobs. This gap is particularly critical in the context of Industry 5.0, where advanced digital and cognitive skills are increasingly required (Antonietti, et al., 2025).

Finally, the concept of inclusive innovation plays a central role in the Industry 5.0 framework. Inclusive innovation refers to the development and implementation of technologies and policies that ensure broad societal participation and equitable distribution of benefits. It emphasizes the inclusion of marginalized groups, including women, in innovation processes, decision-making, and access to opportunities. In this sense, Industry 5.0 provides a strategic opportunity to redesign innovation ecosystems in a way that promotes gender equality and social inclusion (Narkhede et al., 2025).

In sum, Industry 5.0 represents a paradigm shift from technology-driven industrialization to a more balanced, human-oriented, and sustainable model of development. By integrating human-centeredness, sustainability, and resilience, it offers a comprehensive framework for addressing contemporary global challenges while fostering inclusive and equitable growth.

In the context of Türkiye, the transition towards Industry 5.0 presents both significant opportunities and structural challenges, particularly in relation to women’s labour and education systems. While Türkiye has made considerable progress in digital transformation and industrial development, persistent gender inequalities in labour force participation and access to digital skills continue to limit the inclusive potential of this transition. The existence of a gendered digital skills gap, combined with regional disparities and unequal access to technological resources, reflects a broader digital divide that risks excluding women from emerging Industry 5.0 opportunities (Aydin et al., 2025). Therefore, aligning education policies, workforce development strategies, and inclusive innovation frameworks becomes critical for ensuring that the Industry 5.0 transformation contributes to sustainable and equitable growth in Türkiye.

Women’s Labour in the Digital Economy

The rapid expansion of the digital economy has fundamentally transformed labour markets, reshaping the nature, organization, and accessibility of work. Digital technologies—such as the internet, artificial intelligence, and platform-based systems—have created new opportunities for women’s participation in the workforce. However, these developments have also reproduced and, in some cases, intensified existing gender inequalities (Ahmad et al., 2024; Rani et al., 2022).

Despite the transformative potential of digitalization, women remain underrepresented in key sectors of the digital economy, particularly in technology-intensive and STEM fields. This underrepresentation limits women’s access to high-paying and high-status jobs, reinforcing

occupational segregation and gender disparities in leadership and managerial positions (Rani et al., 2022).

Furthermore, women are more likely to be concentrated in vulnerable and low-paid occupations that are susceptible to automation. Structural inequalities in education, labour market participation, and access to technological resources contribute to this imbalance. While digitalization has been shown to increase women’s labour force participation through expanded access to internet and mobile technologies, this increase does not necessarily translate into equality in job quality or career advancement (Ahmad et al., 2024; Tunçsiper, 2025).

A central challenge in the digital economy is the gendered digital skills gap, which refers to disparities between men and women in access to, use of, and proficiency in digital technologies. This gap manifests in several interrelated dimensions. First, women often face limited access to digital infrastructure, particularly in developing regions where socioeconomic and cultural barriers restrict their use of technology (Rani et al., 2022). Second, inequalities in education and training opportunities result in lower levels of digital literacy and technical skills among women, limiting their ability to engage in digital occupations (Tunçsiper, 2025). Third, there is a usage gap, whereby women are more likely to use digital technologies for social or communicative purposes rather than for income-generating or professional activities (Bünning et al., 2023).

Importantly, access to digital tools and skills alone does not guarantee empowerment. Structural constraints such as patriarchal norms, social expectations, and intersectional inequalities continue to hinder women’s ability to translate digital competencies into economic opportunities (Rani et al., 2022). Therefore, addressing the digital skills gap requires a broader, intersectional policy approach.

The rise of platform-based work (gig economy) represents one of the most visible transformations of the digital economy. For women, platform work can offer flexibility in terms of working hours and location, making it particularly attractive for those balancing paid employment with unpaid care responsibilities (Rani et al., 2022). However, this flexibility often comes at the cost of job security and labour protections. Platform workers are frequently classified as independent contractors rather than employees, which excludes them from social protection systems such as health insurance, paid leave, and unemployment benefits. As a result, women in platform work are often exposed to precarious employment conditions, including unstable income, long working hours, and limited bargaining power (Omar & Jamil, 2025).

Moreover, the promise of flexibility can mask a “double burden,” as women continue to bear the majority of unpaid domestic and care work alongside their paid digital labour. This dynamic reinforces gender inequalities rather than alleviating them (Rani et al., 2022). Thus, while platform work expands access to employment, it also introduces new forms of vulnerability and exploitation.

Another critical issue in the digital economy is algorithmic bias, which refers to the ways in which artificial intelligence and algorithmic systems reproduce or amplify existing social inequalities. Since these systems are trained on historical data that often reflect gender biases, they can inadvertently perpetuate discriminatory practices. For example, recruitment algorithms may favor male candidates, while platform rating systems can disadvantage women workers due to biased customer evaluations. In gig economy platforms, algorithmic management systems control access to work, assign tasks, and evaluate performance, often without transparency or accountability. These systems can penalize women who, due to caregiving responsibilities, may not conform to the ideal of uninterrupted availability (Ahmad et al., 2026). As a result algorithmic bias thus creates a form of “hidden inequality” in the digital economy, making it more difficult for women to compete on equal terms. Addressing

this issue requires not only technical solutions but also regulatory frameworks and ethical standards in the design and implementation of digital systems (Jo, 2025).

The digital economy presents a paradox for women’s labour. On the one hand, it offers new pathways for employment, entrepreneurship, and economic participation. On the other hand, it reproduces structural inequalities through unequal access to resources, precarious forms of work, and biased technological systems. To ensure that the digital economy becomes more inclusive and equitable, policy interventions must focus on closing the digital skills gap, regulating platform work, and addressing algorithmic bias. Only through such comprehensive efforts can the transformative potential of digitalization be harnessed to promote gender equality in the labour market (Ho et al., 2025).

Education Policies and Skills Transformation in Türkiye

Women’s employment policies in Türkiye are shaped by a combination of macro-level strategies and targeted interventions aimed at increasing labour force participation, improving job quality, and reducing informal employment. The Twelfth Development Plan (2024–2028) sets a central policy objective of aligning women’s labour force participation with OECD averages while strengthening formal employment structures (Presidency of Strategy and Budget, 2023). In line with this objective, a diverse set of policy instruments has been implemented, including financial incentives such as the Women-Up Project (Social Security Institution, 2022), childcare and work–life balance policies, entrepreneurship supports through Small and Medium-Sized Enterprises Development and Support Administration (KOSGEB, n.d), active labour market programs such as the Women’s Employment Positive Discrimination Project (KİPAP) implemented by Public Employment Agencies (İŞKUR, 2025), and vocational education and lifelong learning initiatives (Ministry of National Education, 2023). Despite these comprehensive efforts, women’s labour market outcomes in Türkiye reveal a persistent gap between policy intentions and actual results. While female labour force participation has increased from approximately 30% in 2013 to around 36–37% in recent years, it remains significantly below the OECD average of over 50% (OECD, 2022; Turkish Statistical Institute [TurkStat], 2024). Similarly, employment rates for women continue to lag behind international benchmarks, indicating that increased participation does not necessarily translate into stable and sustained employment.

A critical structural challenge in this context is the high level of informal employment among women, with approximately one-third of employed women working outside formal labour market structures (TurkStat, 2024). Informality limits access to social protection, reduces job security, and weakens long-term career prospects. Furthermore, while active labour market programs have successfully increased women’s participation in employment support mechanisms, their impact on long-term job retention remains limited. These findings suggest that current policies are relatively effective in facilitating entry into the labour market but insufficient in ensuring employment quality, continuity, and upward mobility.

Table 1. Comparative indicators of women’s employment: Türkiye vs OECD

Indicator (2022–2025)	Türkiye (%)	OECD Average (%)
Female Labour Force Participation	36–37	52–53
Female Employment Rate	31–32	~60
Informal Employment (Women)	30–35	Very low (<15)
Participation in Active Labour Programs (Women Share)	45–50	—

Sources: OECD (2022); TurkStat (2024); İŞKUR (2023)

In Table 1 the comparative data clearly demonstrate that Türkiye has made measurable progress in increasing women’s labour force participation; however, a substantial gap remains when compared to OECD averages. The difference of approximately 15-20 percentage points suggests that structural constraints -such as care responsibilities, occupational segregation, and limited access to quality jobs- continue to hinder women’s full economic inclusion.

Another critical insight emerges from the employment rate gap, which is even more pronounced than participation. This indicates that entering the labour market does not necessarily translate into stable employment for women in Türkiye. In other words, the transition from participation to sustained employment remains a key policy challenge.

The high level of informal employment (30–35%) further complicates this picture. Compared to OECD countries, where informality is relatively limited, Türkiye faces a dual challenge: not only increasing participation but also ensuring that employment is formal, secure, and protected.

Digital Transformation and Gendered Inequalities

The transformation of labour markets under digitalization introduces both opportunities and risks for women’s employment in Türkiye. While digital technologies can expand access to work and enable flexible employment arrangements, they also interact with existing inequalities, often reinforcing gender disparities.

One of the most significant barriers is the gendered digital skills gap, which reflects inequalities in access to digital competencies, education, and technology-oriented career pathways (Ministry of Industry and Technology, 2021; Tunçsiper, 2025). In Türkiye, this gap is closely linked to broader digital inequalities, limiting women’s participation in high-skill sectors.

In addition, emerging forms of employment such as platform-based work offer flexibility but are often associated with precarious conditions, including income instability and limited social protection. Algorithmic management systems and biases embedded in digital technologies may further disadvantage women in hiring and evaluation processes.

Education and Skills Transformation for Industry 5.0

In the context of Industry 5.0, education policies play a central role in addressing these structural challenges. The limitations observed in employment outcomes highlight the need for stronger alignment between education systems and labour market demands.

First, vocational education and training (VET) systems should be aligned with high-growth sectors such as digital technologies and advanced manufacturing. Expanding women’s access to these programs is essential for reducing occupational segregation.

Second, strengthening women’s participation in STEM education and digital literacy programs is critical for improving their competitiveness in emerging sectors (Ministry of Industry and Technology, 2021).

Third, lifelong learning systems should support continuous reskilling and upskilling, particularly for women re-entering the labour market after career interruptions.

Finally, early educational interventions aimed at reducing gender stereotypes in career choices are crucial for long-term structural transformation.

Policy-Practice Alignment: The Case of Türkiye’s Engineer Girls Project

Addressing structural barriers requires not only macro-level policies but also targeted interventions. The “Türkiye’s Engineer Girls Project” (TMK) represents a concrete example of how education and employment policies can be effectively integrated.

The project supports women’s participation in engineering and STEM fields through scholarships, mentoring, internships, and career development opportunities (Republic of Türkiye Ministry of Family and Social Services, 2025; Limak Foundation, 2025). Its expansion into subsequent phases highlights increasing institutional cooperation and long-term impact. From an Industry 5.0 perspective, such initiatives are significant as they promote human-centered development, social inclusion, and gender equality.

Towards Inclusive and Sustainable Women’s Employment

While Türkiye has made measurable progress in increasing women’s labour force participation, significant structural challenges remain in terms of employment quality, sustainability, and inclusiveness. Although women’s relatively high participation in active labour market programs (İŞKUR, 2025) indicates improved access, the limited impact of these programs on long-term employment outcomes suggests that they function primarily as entry mechanisms rather than pathways to sustainable labour market integration.

This pattern reflects a broader structural limitation observed in many developing and middle-income economies undergoing digital transformation. The transition associated with Industry 4.0 has been characterized by increasing demand for high-skilled labour, digital competencies, and adaptability, while simultaneously expanding non-standard and precarious forms of employment (OECD, 2019; World Economic Forum, 2023). In Türkiye, women remain disproportionately represented in informal and low-paid sectors, which limits their ability to benefit from these structural shifts (OECD, 2022).

From this perspective, labour market inequalities cannot be fully understood without considering the interaction between technological change and existing gender structures. Industry 4.0 processes tend to amplify pre-existing inequalities when access to skills, technology, and education is unevenly distributed. In Türkiye, gender disparities in education—particularly in STEM fields—continue to constrain women’s participation in high-value segments of the digital economy (Koca Peker, 2025).

Within the emerging Industry 5.0 framework, this situation calls for a shift from quantity-oriented employment policies toward more integrated and human-centred approaches. These approaches emphasize not only access to employment but also job quality, sustainability, and inclusion (European Commission, 2021). Accordingly, strengthening women’s digital skills, promoting interdisciplinary competencies, and addressing structural barriers such as occupational segregation and informality become critical policy priorities.

At the same time, education systems play a dual role in this transformation. On the one hand, they provide the skills required for participation in digital economies; on the other, they shape social norms and gender roles that influence labour market outcomes. As highlighted in the Turkish context, educational and cultural factors continue to reproduce gender inequalities, limiting women’s long-term employment opportunities (Yılmaz Fındık, 2025)

Discussion: Linking Women’s Employment Policies to Industry 5.0

From an Industry 5.0 perspective, the current landscape of women’s employment in Türkiye reflects a partial yet structurally limited alignment with the principles of human-centricity, inclusiveness, and sustainability. Although policy efforts have contributed to increasing women’s labour force participation, persistent structural challenges—such as high informality, occupational segregation, and low job retention—indicate that these gains remain fragile and unevenly distributed. This reveals a critical gap between access to employment and the quality, stability, and sustainability of women’s labour market integration.

This misalignment can be understood through the broader conceptual shift introduced by Industry 5.0, which moves beyond the efficiency-driven logic of Industry 4.0 toward a model

that prioritizes human well-being, social inclusion, and system resilience. In this framework, employment is not merely an economic outcome but also a social process shaped by institutional arrangements, skill formation systems, and power relations in the labour market. However, current policy instruments in Türkiye largely remain rooted in short-term, participation-oriented strategies, with limited emphasis on long-term capability development and structural transformation.

In this regard, education and skills transformation emerge as central policy domains for achieving meaningful alignment with Industry 5.0. Beyond basic employability, there is a growing need to foster hybrid skill sets that combine digital competencies with human-centred capabilities such as creativity, critical thinking, adaptability, and communication. These competencies are particularly relevant in the context of human-machine collaboration, which lies at the core of Industry 5.0 production systems. Nevertheless, access to such skills remains uneven in Türkiye, especially for women, due to persistent gender disparities in STEM education, digital literacy, and lifelong learning opportunities (Cinel, 2025).

Within this context, education systems must be reconfigured as dynamic and inclusive ecosystems that integrate vocational training, digital transformation strategies, and gender-sensitive policy design. Importantly, formal education alone is insufficient to address rapidly changing labour market demands. Practice-oriented and demand-driven training models—particularly those developed through public–industry partnerships—play a crucial role in bridging the gap between education and employment. These interventions provide structured learning environments in which women can acquire not only technical skills but also psychosocial competencies such as career management, self-efficacy, communication, and workplace adaptability. Evidence from Türkiye demonstrates that such programmes significantly enhance women’s employability and facilitate their transition into more sustainable and higher-quality employment pathways (Öztürk Erkoçak & Özen, 2025).

At the policy level, Türkiye exhibits partial alignment with Industry 5.0 principles. Human-centric elements are reflected in policies addressing work–life balance and childcare support, while inclusion-oriented programmes -such as KİPAP and Women-Up- aim to integrate disadvantaged groups into the labour market. In addition, ongoing skills development initiatives seek to improve adaptation to digital transformation. However, these policy efforts often operate in isolation and lack the systemic coherence required for transformative impact. Achieving a deeper alignment with Industry 5.0 therefore necessitates a shift toward a more integrated and multi-level policy framework. Such a framework should connect education systems, labour market institutions, and social policies in a coordinated manner. In particular, skills development strategies must move beyond a narrow focus on technical training and incorporate soft skills, interdisciplinary learning, and digital–human integration. At the same time, labour market policies should prioritize not only participation but also the quality, security, and sustainability of employment.

Furthermore, the persistence of structural inequalities -such as unpaid care responsibilities, regional disparities, and socioeconomic inequalities- continues to constrain women’s ability to fully benefit from digital transformation. In this respect, Industry 5.0’s human-centred approach provides an important opportunity to embed social justice considerations into employment policies, emphasizing inclusive growth and equitable access to opportunities.

Ultimately, Industry 5.0 offers a critical analytical lens for rethinking women’s employment policies in Türkiye. It highlights the need to move beyond fragmented and short-term interventions toward a holistic and transformative policy approach that integrates economic, social, and educational dimensions. Such an approach is essential not only for improving women’s employment outcomes but also for advancing broader goals of gender equality, social inclusion, and sustainable development.

Conclusion

Women’s employment policies in Türkiye reflect a comprehensive yet evolving framework that combines financial incentives, social policies, and education-based interventions. Although measurable progress has been achieved—particularly in increasing labour market participation—significant challenges remain regarding employment quality, inclusiveness, and long-term sustainability.

Addressing these challenges requires a stronger emphasis on education and skills transformation within the broader framework of Industry 5.0. In particular, a more integrated policy approach -linking education systems, labour market institutions, and social policies- will be essential for achieving inclusive and sustainable improvements in women’s employment outcomes.

The transition toward Industry 5.0 presents both opportunities and structural constraints for women’s employment in Türkiye. As a developing economy undergoing rapid digital transformation, Türkiye exemplifies the uneven and context-dependent effects of the digital economy on gender equality. While Industry 5.0 promotes human-centred and inclusive production systems, existing gender inequalities indicate that these principles cannot be realized without targeted and transformative policy interventions.

Empirical evidence suggests that the expansion of the digital economy can enhance women’s labour market participation by offering flexible working arrangements and reducing spatial and temporal constraints. However, in middle-income countries such as Türkiye, these benefits are neither automatic nor evenly distributed across sectors and regions (Do Duy Tien et al., 2024). This underscores the importance of supportive institutional frameworks in translating digital transformation into equitable outcomes.

A key structural barrier in Türkiye is women’s limited access to digital skills and technology. Women’s position in the digital economy is closely linked to their level of digital literacy, access to technological tools, and educational background in ICT-related fields (Koca Peker, 2025). Despite improvements in women’s educational attainment, persistent gender disparities—particularly in STEM fields—continue to restrict their access to high-value segments of the digital economy, thereby reinforcing occupational segregation.

Moreover, even when women possess the required skills, labour market inequalities persist in terms of returns. Research indicates that while ICT and STEM competencies generate positive employment outcomes, women tend to receive lower returns than men, particularly in STEM-related occupations (Bustelo et al., 2019). This highlights the need to address not only skill acquisition but also structural discrimination embedded within labour market institutions.

From an Industry 5.0 perspective, these challenges call for a shift from quantitative employment indicators toward a stronger focus on job quality and inclusiveness. In Türkiye, women remain overrepresented in informal and low-paid sectors, limiting their ability to benefit from digital transformation. Therefore, policy priorities should include formalization, decent working conditions, and equitable access to high-skilled employment opportunities.

Another critical constraint is the persistence of unpaid care work, which continues to limit women’s labour market participation. Although flexible working models associated with the digital economy offer new opportunities, they may also reinforce traditional gender roles if care responsibilities remain unequally distributed. In this respect, Industry 5.0’s human-centred approach provides a valuable framework for integrating social policies—such as childcare provision and work–life balance measures—into employment strategies.

Furthermore, the Turkish case demonstrates the importance of adopting an intersectional policy perspective. Regional disparities, socioeconomic inequalities, and differences in educational access significantly shape women’s employment outcomes. Women in rural areas or with lower

levels of education face greater barriers to accessing digital opportunities, increasing the risk of deepening existing inequalities during the transition to Industry 5.0.

In this context, although flexible and remote working arrangements offer new opportunities for women’s inclusion, they may also reproduce precarious working conditions, wage disparities, and limited career advancement if not supported by strong institutional and regulatory frameworks (Özcan & Koca, 2025).

Ultimately, aligning women’s employment policies with Industry 5.0 in Türkiye requires a comprehensive and context-sensitive approach. Policies should prioritize digital skills development, gender equality in STEM education, fair returns to labour, and the reduction of structural inequalities in both labour market and social domains. Industry 5.0 thus provides a critical framework for rethinking women’s employment not only as an economic issue but also as a matter of social justice and sustainable development.

Discussion

The findings of this study call into question the extent to which current policy frameworks in Türkiye are capable of addressing the structural and multidimensional nature of gender inequality in the labour market, particularly within the context of ongoing digital transformation. While the discourse surrounding Industry 5.0 emphasizes human-centricity, inclusiveness, and sustainability, the empirical patterns observed suggest a persistent gap between these normative ideals and policy outcomes.

From a theoretical perspective, this gap can be better understood through the intersection of Industry 5.0 with inclusive innovation, the capability approach, and feminist political economy. Industry 5.0 envisions a transition toward production systems that prioritize human well-being and social value; however, inclusive innovation literature demonstrates that technological change does not inherently produce equitable outcomes. Instead, access to innovation is unevenly distributed and often reflects pre-existing social hierarchies. In this sense, the persistence of gender disparities in Türkiye indicates that digital transformation processes are being layered onto unequal social structures rather than transforming them.

The capability approach further deepens this critique by shifting the analytical focus from formal access to substantive opportunities. From this perspective, increasing women’s participation in the labour force does not necessarily translate into meaningful empowerment if women lack the real freedoms and capabilities to access quality employment, develop skills, and sustain career trajectories. The findings suggest that many existing policies in Türkiye remain confined to expanding formal participation, without adequately addressing the underlying constraints that limit women’s agency in the labour market.

Similarly, a feminist political economy perspective highlights how labour market inequalities are embedded within broader systems of social reproduction, including unpaid care work and gendered divisions of labour. The persistence of these structures in Türkiye raises critical questions about the transformative potential of current policy approaches. While Industry 5.0 promotes a human-centered vision of work, this vision remains incomplete if it does not explicitly engage with the unequal distribution of care responsibilities and the ways in which these inequalities shape women’s economic participation.

At the policy level, these theoretical insights reveal important limitations in Türkiye’s existing education and employment strategies. Although policy interventions have been successful in increasing women’s access to the labour market, they appear to rely heavily on short-term activation measures rather than long-term structural transformation. This results in a policy paradigm that prioritizes numerical increases in participation while overlooking the quality, stability, and sustainability of employment. In particular, the weak integration between

education systems and the evolving demands of the digital economy limits women’s ability to transition into high-skilled and innovation-driven sectors.

Moreover, the continued prevalence of informal employment and occupational segregation suggests that policy frameworks have not sufficiently addressed the institutional and structural dimensions of inequality. In this regard, the emphasis on employability and skills development—while necessary—risks placing the burden of adaptation on individuals rather than addressing systemic barriers within labour markets and organizational practices. This reflects a broader tendency in policy discourse to frame inequality as a skills deficit rather than a structural issue.

The implications of these limitations become even more pronounced in the context of emerging forms of work associated with digitalization. The expansion of the platform economy, for example, introduces new opportunities for flexibility but also generates new forms of precarity and insecurity. Without adequate regulatory frameworks and social protection mechanisms, these developments may reinforce gendered vulnerabilities rather than alleviate them.

From a forward-looking perspective, the transition to Industry 5.0 in Türkiye requires a more critical and transformative policy orientation. This entails moving beyond incremental policy adjustments toward a systemic reconfiguration of the relationship between education, labour markets, and social policy. In particular, policies aimed at enhancing women’s digital skills and increasing participation in STEM fields must be embedded within broader efforts to challenge gender norms, reduce structural inequalities, and ensure equitable access to resources and opportunities.

Furthermore, the concept of inclusive innovation should be operationalized not only as a goal but as a guiding principle in policy design. This requires actively incorporating gender perspectives into innovation systems, supporting women’s participation in technological development, and ensuring that the benefits of digital transformation are distributed more equitably. Importantly, such efforts must be complemented by policies that address unpaid care work and promote a more balanced distribution of social reproduction responsibilities.

Overall, the discussion suggests that the transition to Industry 5.0 cannot be understood as a purely technological shift. Rather, it represents a contested and uneven process shaped by existing power relations and institutional arrangements. In the absence of deliberate and transformative policy interventions, there is a significant risk that digital transformation will reproduce—and potentially deepen—existing gender inequalities in Türkiye’s labour market.

References

- Ahmad, A., Vallès, Y., & Idaghdour, Y. (2026). Bias in AI systems: integrating formal and socio-technical approaches. *Frontiers in Big Data*, 8, 1686452. <https://doi.org/10.3389/fdata.2025.1686452>
- Ahmad, R., Sharif, F., Ahmad, S., Gul, A., & Abdirasulovna, Z. A. (2024). Does the digital economy improve female employment? A cross-country panel data analysis. *Heliyon*, 10, e33535.
- Akturan, A. (2025). Türkiye’s digital transformation a comprehensive literature review of social cultural legal and economic challenges and opportunities. *Uluslararası Yönetim İktisat ve İşletme Dergisi*, 21(21), 29–51. <https://dx.doi.org/10.17130/ijmeb.1782135>
- Antonietti, R., Burlina, C., & Rodríguez-Pose, A. (2015). Digital technology and regional income inequality: Are better institutions the solution? *Papers in Regional Science*, 104, 2, 100079. <https://doi.org/10.1016/j.pirs.2025.100079>.
- Aydin, E., Rahman, M. & Ozeren, E. (2023). Does industry 5.0 reproduce gender (in)equalities at organisations? Understanding the interaction of human resources and software development teams in supplying human capitals. *Information Systems Frontiers*. <https://doi.org/10.1007/s10796-023-10450-1>
- Bustelo, M., Flabbi, L., & Viollaz, M. (2019). *The gender labor market gap in the digital economy*. Inter-American Development Bank. <http://dx.doi.org/10.18235/0001941>
- Bünning, M., Schlomann, A., Memmer, N., Tesch-Römer, C., & Wahl, H. W. (2023). Digital gender gap in the second half of life is declining: Changes in gendered internet use between 2014 and 2021 in Germany. *J*

- Gerontol B Psychol Sci Soc Sci.*,78(8), 1386-1395. <https://doi.org/10.1093/geronb/gbad079>. PMID: 37218293; PMCID: PMC10394992.
- Carminati, L., Lagorio, A., Cimini, C., Pirola, F., Jurczuk, A., & Boucher, X. (2025). Integrative skills framework for Industry 5.0: Insights from a systematic literature review and a European survey study. *Journal of Environmental Management*, 394, 127425. <https://doi.org/10.1016/j.jenvman.2025.127425>
- Cinel, E. A. (2025). Employment created by women in the industry 4.0 era. In F. Özen & K. Y. Genç (Edts.), *The position of women's labor in the industry 4.0 era* (pp. 179-199). Bursa, Türkiye: Ekin.
- Do Duy Tien, D., Nguyen, T. Q., & Vu, D. H. (2024). The impact of digital economy on women's employment: Evidence from selected European and Asian countries. *Journal of International Economics and Management*, 24(3), 77–96. <https://doi.org/10.38203/jiem.024.3.0095>
- European Commission. (2021). Industry 5.0: Towards more sustainable, resilient and human-centric industry. Retrieved April 1, 2026 from https://research-and-innovation.ec.europa.eu/news/all-research-and-innovation-news/industry-50-towards-more-sustainable-resilient-and-human-centric-industry-2021-01-07_en#:~:..
- Ghobakhloo, M., Iranmanesh, Fathi, M., Rejeb, A., Foroughi, B., & Nikbin, D. (2024). Beyond Industry 4.0: A systematic review of Industry 5.0 technologies and implications for social, environmental and economic sustainability. *Asia-Pacific Journal of Business Administration*, 17(4), 889-914. <https://doi.org/10.1108/APJBA-08-2023-0384>.
- Halford, S., & Savage M. (2010). Reconceptualizing digital social inequality. *Information, Community & Society*, 13(7), 937-955. <http://dx.doi.org/10.1080/01369118X.2010.499956>.
- Heeks, R. (2022). Digital inequality beyond the digital divide: conceptualizing adverse digital incorporation in the global South. *Information Technology for Development*, 28(4), 688–704. <https://doi.org/10.1080/02681102.2022.2068492>
- Ho, J. Q., H., Hartanto, H., Koh, A., & Majeed, N. M. (2025). Gender biases within Artificial Intelligence and ChatGPT: evidence, sources of biases and solutions. *Computers in Human Behavior: Artificial Humans*, 4, 100145. <https://doi.org/10.1016/j.chbah.2025.100145>
- İŞKUR. (2025). *Aralık 2025 istatistik bülteni*. Retrieved April 1, 2026 from <https://www.iskur.gov.tr/kurumsal/istatistikler/aylik-istatistik-bultenleri/2025/>
- Jo, J. I. (2025). Explaining resistance to algorithmic bias: The impact of feminist consciousness and AI literacy on protest participation in South Korea. *Asian Women*, 41(3),145-160. <https://doi.org/10.64446/aw.2025.9.41.3.145>
- Kargın Akkoç, G. (2025). Measuring digital inequality across the life cycle: age, gender, and education effects in Türkiye. *Journal of Research in Economics, Politics & Finance*, 10(3), 1086-1103. <https://doi.org/10.30784/epfad.1687594>
- Kasap, A. (2025). Industry 5.0 and digitalizing societies: Turkey on the brink of a new revolution. *Uluslararası Anadolu Sosyal Bilimler Dergisi*, 9(1), 178-192. <https://doi.org/10.47525/ulasbid.1620668>
- Kaytan, M., & Erdoğan, E. (2025). Web tabanlı dijital emek platformlarında çalışma koşulları: Türkiye’de Bionluk üzerine nitel bir araştırma. *Erciyes Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 71, 109-119. <https://doi.org/10.18070/erciyesiibd.1671187>
- Kes Erkul, A. (2023). Algorithmic bias as a sociological issue: how big is the challenge for ‘AI for social good’?, *Üçüncü Sektör Sosyal Ekonomi Dergisi*, 58(4), 3335-3345.
- Koc, T., & Teker, S. (2019). Industrial revolutions and its effects on quality of life. *PressAcademia Procedia (PAP)*, 9, 304-311. <http://doi.org/10.17261/Pressacademia.2019.1109>
- Koca Peker, Ş. N. (2025). Intersectionality of sustainable development discourse and inequality: Assessing the position of women in digital economy. *TOBİDER International Journal of Social Sciences*, 9(2), 142–167. <http://dx.doi.org/10.30830/tobider.sayi.22.9>
- KOSGEB. (n.d). *Entrepreneurship support programs*. Retrieved April 1, 2026 from <https://www.kosgeb.gov.tr/site/tr/genel/destekdetay/1231/girisimci-destek-programi>
- Kumar, P., Udayai, K., & Sharma, R. (2025). Evaluating the role of industry 5.0 in achieving sustainable development goal 3: “good health and well-being”. In S. Poddar & W. Ansar (Edts.), *Sustainable development goals (SDG) and its intersection with health and well-being*, (pp. 151-172). IGI Global. <https://doi.org/10.4018/979-8-3693-9755-8.ch006>
- Limak Foundation. (2025). *Türkiye'nin mühendis kızları*. Retrieved January 25, 2026 from <https://www.limak.com.tr/social-impact/limak-foundation/womens-empowerment/turkiyenin-muhendis-kizlari-en>

- Ministry of Industry and Technology. (2021). *Digital Türkiye strategy*. Retrieved March 20, 2026 from <https://www.sanayi.gov.tr/plan-program-raporlar-ve-yayinlar/strateji-belgeleri>
- Ministry of National Education. (2023). *On ikinci kalkınma planı (2024-2028) mesleki eğitimde niteliğin artırılması çalışma grubu raporu*. Retrieved March 21, 2026 from https://www.sbb.gov.tr/wp-content/uploads/2025/08/Mesleki-Egitimde-Niteligin-Artirilmesi-Calisma-Grubu-Raporu_15082025.pdf
- Narkhede, G. B., Samuel, C., Mahalle, P., & Patil, N. (2025). Harnessing Industry 5.0 to empower women in supply chain and logistics: Insights from manufacturing heartland of India. *The International Journal of Logistics Management*. <https://doi.org/10.1108/IJLM-05-2024-0279>
- OECD. (2022). *Employment outlook*. OECD Publishing.
- OECD. (2025). *OECD Economic Surveys: Türkiye 2025*. Paris, France: OECD Publishing. <https://doi.org/10.1787/d01c660f-en>.
- Oktay Yılmaz, B., & Ünlü, A. D. (2022). Digital transformation and the future of work and women: the case of the European Union. *Journal of Social Policy Conferences*, 82, 337-356. <https://doi.org/10.26650/jspc.2022.82.1073130>
- Omar, N., & Jamil, R. (2025). The shift from traditional jobs to gig work: rethinking career development in a flexible economy. *International Journal of Research and Innovation in Social Science (IJRISS)*, 9(4), 4936-4946. <https://doi.org/10.47772/IJRISS>
- Özcan, K., & Koca, A. K. (2025). The effects of digital transformation on women's employment and gender equality. In F. Özen & K. Y. Genç (Edts.), *The position of women's labor in the industry 4.0 era* (pp.41-63). Bursa, Türkiye: Ekin.
- Öztürk Erkoçak, İ., & Özen, F. (2025). Women's professional skills development: public-industry partnerships. In F. Özen & K. Y. Genç (Edts.), *The position of women's labor in the industry 4.0 era* (pp.269-291). Bursa, Türkiye: Ekin.
- Presidency of Strategy and Budget. (2023). *Twelfth Development Plan (2024–2028)*. Retrieved February 20, 2026 from https://www.sbb.gov.tr/kalkinma_planlari/
- Rani, U., Castel-Branco, R., Satija, S., & Nayar, M. (2022). Women, work, and the digital economy. *Gender & Development*, 30(3), 421–435.
- Republic of Türkiye Ministry of Family and Social Services. (2025). Türkiye's Engineer Girls Project Phase III protocol agreement signed. Retrieved March 30, 2026 from <https://www.aile.gov.tr/ksgm/haberler/turkiye-nin-muhendis-kizlari-projesi-3-faz-protokol-anlasmasi-imzalandi/>
- Social Security Institution. (2022). *Women-Up Project report*. Retrieved March 22, 2026 from <https://www.sgkkadinistihdaminindesteklenmesi.org/>
- Tunçsiper, Ç. (2025). From digital divide to employment equity: How digitalization affects women's involvement in the workforce in OECD countries. *Multidisciplinary Journal of Gender Studies*, 14(1), 63–78. <https://doi.org/10.17583/generos.15672>
- TurkStat. (2025). Women in Statistics, 2024. Retrieved February 12, 2026 from <https://veriportali.tuik.gov.tr/en/press/54076>
- World Economic Forum. (2023). *Future of jobs report 2023*. Cologny/Geneva Switzerland: World Economic Forum. Retrieved from <https://www.weforum.org/reports/the-future-of-jobs-report-2023/>
- Yılmaz Fındık, L. (2025). Gender equality in Türkiye: A critical analysis and action plan for schools. *European Journal of Sustainable Development Research*, 9(4), em0318. <https://doi.org/10.29333/ejosdr/16578>

THE IMPACT OF SALES AND CLIENT MANAGEMENT SYSTEMS ON FIRM PERFORMANCE: EVIDENCE FROM FIRMS IN THE WESTERN BALKANS

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Abstract

Digital management systems have become increasingly important tools for improving organizational efficiency and competitiveness. However, empirical evidence on how specific digital systems influence firm performance remains limited, particularly in emerging economies. This study examines the impact of sales management systems and client management systems on firm performance in the Western Balkans. The analysis uses data from the Balkan Business Opinion Barometer 2023, covering 1,200 firms across the Western Balkan economies (WB6). A binary logistic regression model is employed to evaluate the relationship between the adoption of these digital management systems and firms' performance outcomes. The results reveal that the adoption of sales management systems has a statistically significant and positive impact on firm performance, suggesting that firms using structured sales management tools are more likely to experience improved performance outcomes. In contrast, client management systems do not show a statistically significant relationship with firm performance. These findings indicate that while digital tools related to sales operations contribute directly to firm growth and efficiency, client management systems may require complementary organizational capabilities to generate measurable performance benefits. The study contributes to the literature on digital transformation and firm performance by providing empirical evidence from the Western Balkans and offers insights for managers and policymakers seeking to promote digital adoption among firms.

Key words: Sales Management System, Client Management System, Binary Logistic

1 Introduction

Across the Western Balkans, firms operate in an environment characterised by inflationary pressures, energy-related risks, political uncertainty, labour shortages, and sustained brain drain—conditions that intensify the need for productivity-enhancing organisational innovations (RCC, 2024). In the Balkan Barometer Business Opinion 2024 key findings, firms identify labour force shortages and brain drain/emigration among the most prominent obstacles to doing business, alongside regulatory issues and access to finance (RCC, 2024).

At the same time, the region's medium-term convergence agenda explicitly treats digitalisation as a driver of productivity and resilience. The OECD's Economic Convergence Scoreboard for the Western Balkans notes generally positive progress in the “digitalisation” cluster, but also highlights that digital skills lag behind infrastructure and technology advances—creating an adoption-to-value “gap” for firms (OECD, 2023).

https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/10/economic-convergence-scoreboard-for-the-western-balkans-2023_7d33fe73/2f4b0366-en.pdf

This mismatch matters because the performance impact of digital tools often depends not only on acquisition, but also on effective use and complementary organisational changes (Bresnahan et al., 2000).

This study focuses on two widely discussed categories of management software captured in the Balkan Barometer’s “usage of online and digital tools” module: (i) sales management software/systems and (ii) client management software/systems. It asks a concrete question: are firms that adopt these tools more likely to report improved performance?

2. Literature review

The relationship between digitalization and firm performance has been widely explored in the literature, with a general consensus that digital technologies can enhance productivity, efficiency, and competitiveness. Digital tools enable firms to optimize processes, reduce transaction costs, and improve decision-making through better data availability and analytics. From a theoretical perspective, the resource-based view (RBV) posits that digital capabilities can serve as strategic resources that generate competitive advantage when they are valuable, rare, and difficult to imitate (Eriandani and Winarno, (2023).

However, empirical findings remain mixed, particularly in emerging and transition economies. While some studies show a positive relationship between digital adoption and firm performance, others suggest that the benefits of digitalization depend on complementary organizational factors such as human capital, managerial capabilities, and organizational restructuring. This aligns with the concept of complementarities, which emphasizes that technology alone does not guarantee improved performance unless supported by appropriate organizational practices (Kuang et al. 2023).

Within the broader domain of digitalization, management systems play a crucial role in structuring firm operations. Digital management systems are designed to formalize processes, improve coordination, and enhance transparency in decision-making. These systems can be particularly important in environments characterized by uncertainty and resource constraints, such as the Western Balkans (Fredrich and Bouncken, (2021).

Sales management systems, in particular, are associated with improvements in operational efficiency and revenue generation. By enabling firms to track sales performance, forecast demand, and manage pipelines, these systems support more informed and timely decision-making. Prior research suggests that firms adopting structured sales tools are better positioned to optimize their commercial strategies and respond to market changes Martín-Peña et al. (2020).

In contrast, client management systems—often referred to as Customer Relationship Management (CRM) systems—focus on managing interactions with customers, enhancing customer satisfaction, and building long-term relationships. While CRM systems are widely considered essential for customer-oriented strategies, their direct impact on firm performance is less clear. Some studies indicate that CRM systems improve customer retention and loyalty, which can indirectly influence performance, while others find that their effectiveness depends heavily on how they are implemented and integrated into business processes.

A key insight from the literature is that the impact of digital systems on firm performance is not automatic but contingent upon complementary capabilities. Bresnahan et al. (2000) argue that organizational change, skills, and management practices are critical for translating technological investments into productivity gains. This is particularly relevant in the context of emerging economies, where firms may adopt digital tools without fully integrating them into their operational structures (Yang and Yee, (2022).

In the Western Balkans, this issue is further compounded by structural challenges such as skill shortages, institutional constraints, and limited access to advanced technologies . As highlighted by recent regional reports, while digital infrastructure has improved, firms often lack the necessary digital skills to fully leverage these tools. This creates an “adoption-to–

value” gap, where firms invest in digital technologies but do not achieve corresponding performance improvements.

Empirical evidence from emerging economies suggests that the effects of digitalization are often heterogeneous. Factors such as firm size, age, and country-specific conditions can significantly influence the outcomes of digital adoption (Tang et al. 2023). Smaller firms, for instance, may benefit less from digital systems due to limited resources, while older firms may face challenges in adapting to new technologies (Wroblewski, (2018).

In the Western Balkans, firms operate in a complex environment marked by economic volatility, labor market constraints, and institutional challenges (Hautala-Kankaanpää, (2022). These conditions increase the importance of efficiency-enhancing tools but also limit their effective use. As a result, the performance impact of digital management systems may vary not only across firms but also across countries within the region.

Despite the growing body of literature on digital transformation, there is limited empirical evidence on the impact of specific types of digital management systems on firm performance, particularly in the Western Balkans. Most studies treat digitalization as a broad construct, without distinguishing between different tools and their respective effects (Cheng and Huang, (2023). This study addresses this gap by focusing on two specific systems: sales management systems and client management systems. By examining their distinct effects on firm performance, the study contributes to a more nuanced understanding of digital adoption.

Based on the literature, the following hypotheses are proposed:

H1: The adoption of sales management systems is positively associated with firm performance.

H2: The adoption of client management systems is positively associated with firm performance.

3. Methodology

3.1 Data

This study draws on data from the 2024 Business Opinion Balkan Barometer survey, conducted between March and April 2024 across the six Western Balkan economies: Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia. The survey was financially supported by the Regional Cooperation Council (RCC), which also coordinated the initial development of the questionnaire in English. Following finalization, the questionnaire was translated into local languages to ensure clarity and consistency across countries.

Data collection was carried out using the Computer-Assisted Personal Interviewing (CAPI) method, whereby questionnaires were digitized and administered through tablets or laptops. This approach enabled efficient and standardized data gathering. Prior to field implementation, each economy assigned a supervisor responsible for reviewing and validating the digital questionnaires to ensure their accuracy and readiness.

The sample of firms was selected using a stratified random sampling approach to ensure representativeness across the region. Stratification was based on key characteristics, including geographic region, industry sector, firm size, and ownership structure. The sampling frame relied on official records from national statistical offices, ensuring a reliable and comprehensive selection of businesses. In total, 1,200 firms were surveyed, with 200 firms included from each economy. This methodological design enhances the robustness and representativeness of the dataset, allowing for meaningful insights into business dynamics and economic conditions in the Western Balkans.

3.2 Variables

3.2.1 Dependent variables

This analysis applies binary logistic regression models to investigate the influence of digitalization into firm performance. One question is used to construct the dependent variables. First “How did your business revenues/sales develop in the past 12 months? Did your business revenues increased, remained the same or decreased?”

3.2.2 Independent variables

The analysis includes two binary indicators that measure the extent of digital adoption within firms. Each variable takes the value 1 if the firm uses the respective digital tool and 0 otherwise. More advanced digital tools are also included. Client management software (D5) captures the adoption of CRM systems for customer relationship management. Sales management software (D6) reflects reliance on digital tools to track and manage sales activities.

3.2.3 Control variables

- **Firm Age:** This variable captures the number of years a company has been active in the market. It is measured as a continuous variable, reflecting the firm's level of experience, which could influence its approach to sustainability initiatives. Due to its non-normal distribution, a logarithmic transformation was applied for analytical purposes.
- **Company Size:** This categorical variable classifies businesses according to their workforce size. The categories are defined as follows: 1 = Micro enterprise (fewer than 10 employees), 2 = Small enterprise (10–49 employees), 3 = Medium enterprise (50–249 employees), and 4 = Large enterprise (250 or more employees).
- **Operational Country:** This categorical variable denotes the country in which the firm is based. The classification includes the following codes: 1 = Albania, 2 = Bosnia and Herzegovina, 3 = Kosovo, 4 = Montenegro, 5 = North Macedonia, and 6 = Serbia.

4. Analysis of results

A logistic regression was conducted to identify the determinants of revenue growth among SMEs in the Western Balkans. The results reveal that the adoption of sales management systems has a statistically significant and positive impact on firm performance, suggesting that firms using structured sales management tools are more likely to experience improved performance outcomes. In contrast, client management systems do not show a statistically significant relationship with firm performance.

Country differences were substantial. Compared to Serbia, SMEs in Albania (OR = 2.120, $p = .001$) and Bosnia & Herzegovina (OR = 1.851, $p = .006$) had significantly higher odds of reporting increased revenues. Firm-level characteristics also mattered: micro firms were less likely to experience revenue growth (OR = 0.450, $p = .050$), and older firms showed a reduced likelihood of improved revenues (OR = 0.776, $p = .007$).

Table 1: Model 1: Dependent variable is sales/revenues

Variables	B	S.E.	Sig.	Exp(B)
Client management software/system	,119	,195	,278	1,126
Sales management software/system	,198	,183	,001	1,219
Albania	,751	,218	,001	2,120
BiH	,616	,222	,006	1,851
Kosovo	-,296	,238	,212	,743
Montenegro	-,240	,254	,345	,787
North Macedonia	-,114	,246	,643	,892
Micro	-,797	,407	,050	,450
Small	-,279	,406	,491	,756
Medium	-,161	,420	,701	,851
Age (log)	-,253	,094	,007	,776
Constant	,271	,526	,606	1,311

Conclusions

This study examined the impact of digital management systems—specifically sales management systems and client management systems—on firm performance in the Western Balkans. Using firm-level data from the 2024 Balkan Business Opinion Barometer and applying a binary logistic regression model, the analysis provides empirical evidence on how different types of digital tools relate to performance outcomes in a transition economy context. The findings reveal that the adoption of sales management systems has a statistically significant and positive effect on firm performance, indicating that firms using structured tools to manage sales activities are more likely to experience revenue growth. This result supports the argument that operationally focused digital tools can directly enhance efficiency, improve coordination, and strengthen firms’ ability to respond to market dynamics. In contrast, client management systems do not show a statistically significant relationship with firm performance. This suggests that while such systems may contribute to customer relationship building, their performance effects are not immediate and likely depend on complementary organizational capabilities, such as digital skills, managerial practices, and strategic alignment.

The results also highlight the importance of firm- and country-level heterogeneity. Firms operating in Albania and Bosnia and Herzegovina show higher likelihoods of revenue growth compared to Serbia, while smaller and older firms are less likely to report improved performance. These findings underline the role of structural and contextual factors in shaping the effectiveness of digital adoption.

From a theoretical perspective, the study contributes to the literature on digital transformation by emphasizing that not all digital tools generate equal performance outcomes. Consistent with the resource-based view and the complementarities perspective, the results suggest that the value of digital technologies depends on how closely they are integrated into core business processes. Tools directly linked to revenue generation, such as sales management systems, appear to yield more immediate and measurable benefits.

From a practical and policy perspective, the findings suggest that promoting digital adoption alone is not sufficient. Policymakers in the Western Balkans should focus not only on increasing access to digital tools but also on strengthening firms’ capabilities to use them

effectively. This includes investing in digital skills, managerial training, and organizational innovation. For firms, the results highlight the importance of prioritizing digital tools that are closely aligned with core business functions, while ensuring that broader systems such as client management platforms are supported by appropriate organizational practices.

Despite its contributions, the study has some limitations. The analysis relies on cross-sectional data and self-reported measures of performance, which may limit causal interpretation. In addition, the use of binary indicators for digital adoption does not capture the intensity or quality of system use. Future research could address these limitations by using longitudinal data, exploring interaction effects between digital tools and organizational capabilities, and examining sector-specific dynamics.

Overall, the study provides new empirical insights into the role of digital management systems in shaping firm performance in the Western Balkans, highlighting the importance of differentiating between types of digital tools and the conditions under which they generate value

References

- Cheng, R., Ho, C. Y., & Huang, S. (2023). Digitalization and firm performance: Channels and heterogeneities. *Applied Economics Letters*, 30(17), 2401-2406.
- Hautala-Kankaanpää, T. (2022). The impact of digitalization on firm performance: examining the role of digital culture and the effect of supply chain capability. *Business process management journal*, 28(8), 90-109.
- Wroblewski, J. (2018). Digitalization and firm performance: are digitally mature firms outperforming their peers?.
- Yang, Y., & Yee, R. W. (2022). The effect of process digitalization initiative on firm performance: A dynamic capability development perspective. *International Journal of Production Economics*, 254, 108654.
- Li, L., Tang, W., Zhou, H., & Yang, S. (2023). Digitalization and firm performance: The moderating role of top management team attributes. *IEEE Transactions on Engineering Management*, 71, 6595-6605.
- Martín-Peña, M. L., Sánchez-López, J. M., & Díaz-Garrido, E. (2020). Servitization and digitalization in manufacturing: the influence on firm performance. *Journal of Business & Industrial Marketing*, 35(3), 564-574.
- Fredrich, V., & Bouncken, R. B. (2021). The double-edged sword of digitalization for firm performance. In *ISPIM Conference Proceedings* (pp. 1-16). The International Society for Professional Innovation Management (ISPIM).
- Kuang, Y., Fan, M., Fan, Y., Jiang, Y., & Bin, J. (2023). Digitalization, financing constraints and firm performance. *Frontiers in Environmental Science*, 11, 1090537.
- Eriandani, R., & Winarno, W. A. (2023). ESG and firm performance: The role of digitalization. *Journal of Accounting and Investment*, 24(3), 993-1010.
- Zhou, Y., Liu, G., Chang, X., & Wang, L. (2021). The impact of HRM digitalization on firm performance: investigating three-way interactions. *Asia Pacific Journal of Human Resources*, 59(1), 20-43.
- Hermanto, I. R., Widyarini, L. A., & Darma, D. C. (2024). Digitalization impact on sustainable firm performance of small, medium, and large businesses. *Virtual Economics*, 7(1), 7-24.
- Gao, H., Xue, X., Zhu, H., & Huang, Q. (2025). Exploring the digitalization paradox: the impact of digital technology convergence on manufacturing firm performance. *Journal of Manufacturing Technology Management*, 36(2), 277-306.

MAPPING THE RESEARCH LANDSCAPE OF THE WATER– AGRICULTURE–TOURISM NEXUS IN EUROPE: A BIBLIOMETRIC ANALYSIS

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Abstract

This study presents a comprehensive bibliometric analysis of the Water–Agriculture–Tourism (WAT) nexus in Europe, aiming to map the evolution, structure, and emerging dynamics of this interdisciplinary research field. Using data from the Web of Science Core Collection and employing Bibliometrix and VOSviewer, the analysis examines publication trends, thematic development, collaboration networks, and research hotspots between 2000 and 2024. The results reveal a clear transition from fragmented, sector-specific studies to a more integrated and sustainability-oriented research agenda, with ecosystem services, climate change, and water management emerging as dominant themes. However, significant gaps persist, particularly in the integration of tourism within nexus research, limited cross-country collaboration, and the underdevelopment of quantitative and policy-oriented models. The findings also highlight a strong geographic concentration in Mediterranean countries,

reflecting regional water scarcity and tourism pressures. The study contributes to advancing integrated research and supports alignment with Sustainable Development Goals and key European Union policies, including the Common Agricultural Policy and EU Tourism Strategy.

Keywords: Water–Agriculture–Tourism Interrelationship, Bibliometric Analysis, Climate Change, Sustainable Development, Ecosystem Services, Sustainable Development

Introduction

The interconnection of water resources, agriculture, and tourism (WAT) is one of the most pressing issue in ensuring sustainable development in Europe in the twenty-first century (G.-Fivos Sargentis, 2024). The ambitious targets set by the European Green Deal in ensuring a climate-neutral future and ensuring resource efficiency, have heightened the need to understand how scientific research can play a part in ensuring evidence-based management of these interconnected domains.

Water security, food production, and tourism are deeply interconnected in European landscapes, yet these aspects have traditionally been subject to different policy regimes (Judijanto, 2025). Water use in agriculture is responsible for about 70% of water consumption globally, with even higher shares in Mediterranean regions that experience water scarcity (Ali, 2026). Tourism being a key economic activity in Mediterranean regions, it consumes a larger volume of water in these regions (Ali, 2026). At the same time, tourism water use, including recreational activities, is competing with agriculture, especially in southern Europe, during peak seasons (Abdillah, 2025). The interplay of these aspects under different climate change scenarios necessitates a comprehensive overview of how scholars are addressing these aspects (Arampatzis, 2024).

The interrelationship approach has become a fundamental concept in understanding of coupled human-natural systems (Valenti, 2025). Instead of dealing with water, energy, food (WEF) and other resources in isolation from each other, the interlinkage approach has focused on the complex interdependencies and feedbacks that exist in the real world (Judijanto, 2025). The water-energy-food interrelationship framework has provided the methodological basis for the application of the linkage approach in the understanding of the water-agriculture-tourism (WAT) interrelationship, with the emphasis being placed on the need for the management of the resource system to be considered in relation to all sectors simultaneously, rather than individually (Ansari et al., 2023; Elshorbagy, 2021; Mabhaudhi, 2025).

Isolated actions in any given sector have often resulted in unforeseen consequences in another, thereby emphasizing the need for the application of integrated management approaches (G.-Fivos Sargentis, 2024). The interlinkage approach has gone beyond the application of integrated water resource management (IWRM) by realizing that all sectors of the system, and not just the water sector, are considered as drivers and boundaries of the system (Bréthaut, 2016). Research in the European context has emphasized the spatial and temporal aspects of the nexus approach, realizing that the constraints of the resource system are not uniform in all places and at all times (Low, 2025).

From a marginal issue in northern European states to a critical policy issue for the entire European continent, water scarcity has emerged as a critical issue (Li, 2019). In the Mediterranean regions such as West Mani, Greece, the water scarcity issue is becoming more critical due to the impacts of climate variability and tourism flows (Sargentis et al., 2026). In these regions, even water-energy-food intersection is becoming a critical issue due to the presence of both agricultural and tourism economies that compete for water as a finite resource. The agricultural water demand in southern European states often coincides with the summer months when tourism flows to these regions are the highest (Santos, 2025). During the same period, the rainfall in these regions is the lowest. This situation creates a critical issue that is

being increasingly addressed through research studies that explore the cascading consequences of droughts on agricultural productivity and tourism flows (Tawse-Garcia et al., 2025). Research studies on the impacts of droughts on agricultural productivity and tourism flows have highlighted the criticality of the issue (Antriyandarti et al., 2024; Matzarakis, 2025; Montsiemang, 2024).

Climate change acts as the primary integrating factor for research interest in the water-agriculture-tourism linkages (Arampatzis, 2024). Developing a climate-resilient food system through the application of integrated water-energy-food-environment approaches involves understanding the impacts of climate disruption on water availability, energy requirements, environmental systems, and agricultural productivity simultaneously (Dhar, 2025). European research into climate adaptation now acknowledges that agricultural responses to climate change, such as the intensification of irrigation systems, create pressures on water availability that subsequently influence tourism systems (Raza et al., 2025).

Though significant research has been carried out on water, energy, and food interrelationship, the specific incorporation and integration of tourism, as an equivalent sectoral pillar, in European water and agriculture interlinkage research has remained underdeveloped. All previous and significant research on the water, energy, and food intersection has identified a research gap in the relationship between agriculture and the Sustainable Development Goals and its implementation. However, the specific incorporation and integration of tourism, a significant and major water competitor in the Mediterranean and Southern European regions, has remained neglected. Therefore, this paper comes handy to provides a framework for analyzing the intellectual basis of this emerging area of research by analyzing: (i) the evolution and structure of scientific research

through temporal evolution, publication trends, and thematic structure of research on (WAT) (ii) key contributors and collaboration networks shaping research on the nexus, and finally (iii) dominant research themes, emerging topics, and underexplored areas within the nexus, providing insights into future research priorities and policy-relevant knowledge gaps in the European context. These are not only imperative for the advancement of knowledge in the area but is critical for the development of policies in conformity with the Sustainable Development Goals (SDGs 2, 6, 13) and European Union's policies, including the CAP and EU Tourism Strategy.

Methodology

The study employed the use of Bibliometrix and VOSviewer softwares. Bibliometrix is an R-package software that is designed for bibliometric and scientometric studies (Aria & Cuccurullo, 2017). The papers used WoS databases to explore the relationship between Water Agriculture and Tourism. The aim is to gather relevant literature and generate verifiable results. Moreover, WoS databases are chosen for their extensive coverage of scientific materials (Lam et al., 2023).

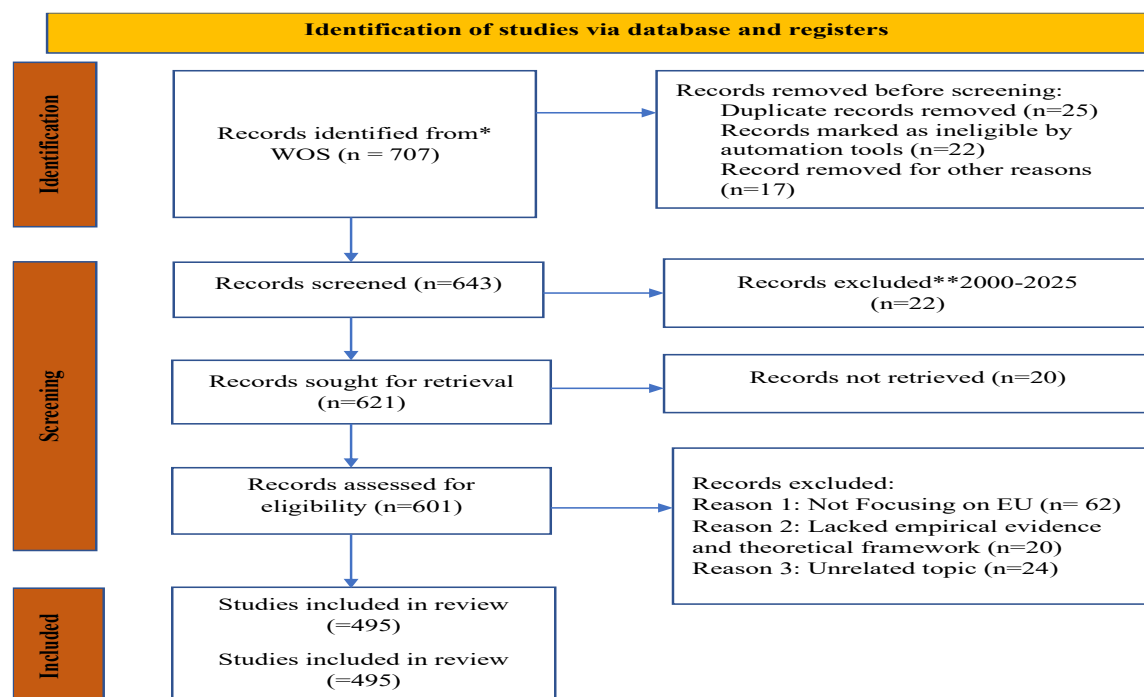
This process followed the stages highlighted below:

- a) The identification and the initial collection of data/documents was done through Web of Science Core Collection since its known for its thorough indexing (Lam et al., 2023).
- b) Screening was done to ensure the removal of duplicates and relevancy. Here both titles and abstracts that did not relate to WAT were excluded.

- c) For the purposes of Eligibility, complete text documents were examined based on pre-defined criteria. This included thematic relevance, status of the journal reviewed and publication date from 2000 to 2025. Only those publications in English were included.
- d) Only those studies that met the eligibility were Included in the bibliometric Synthesis. The final dataset consisted of a solid body of scholarly work, suitable for both qualitative and quantitative exploration.

The study employed the following search query TS = (((water OR "water resource*" OR "water management" OR "water use" OR "water governance")AND(agricultur* OR irrigation OR farming OR crop* OR "food production")AND(touris* OR ecotourism OR hospitality OR recreation))AND(Europe OR "European Union" OR Mediterranean OR "Central Europe" OR "Eastern Europe" OR "Western Europe" OR "Southern Europe"OR Germany OR France OR Italy OR Spain OR Portugal OR Greece OR Netherlands OR Belgium OR Austria OR Poland OR Hungary OR Romania OR Bulgaria OR Croatia OR Slovenia OR Slovakia OR Czech* OR Denmark OR Sweden OR Finland OR Norway OR Ireland OR Switzerland)). Figure 1 below shows the PRISMA process.

Figure 1. Methodological diagram



Source: Authors own computations (2026)

Results and Discussion

The analysis of the general data information on the research areas are as presented in Table 1 below. Document types are predominantly articles (414), contributions from book chapters (7), early access articles (2), article proceedings papers (27), minimal editorial material (1), proceedings papers (17), and review (27). Table 1 below shows general information on data used for analysis.

Table 1. General Information on Data

Document type	No. of Document
Article	414
Book Chapters	7
Early Access	2
Article Proceedings Paper	27
Editorial Material	1
Proceedings Paper	17
Review	27

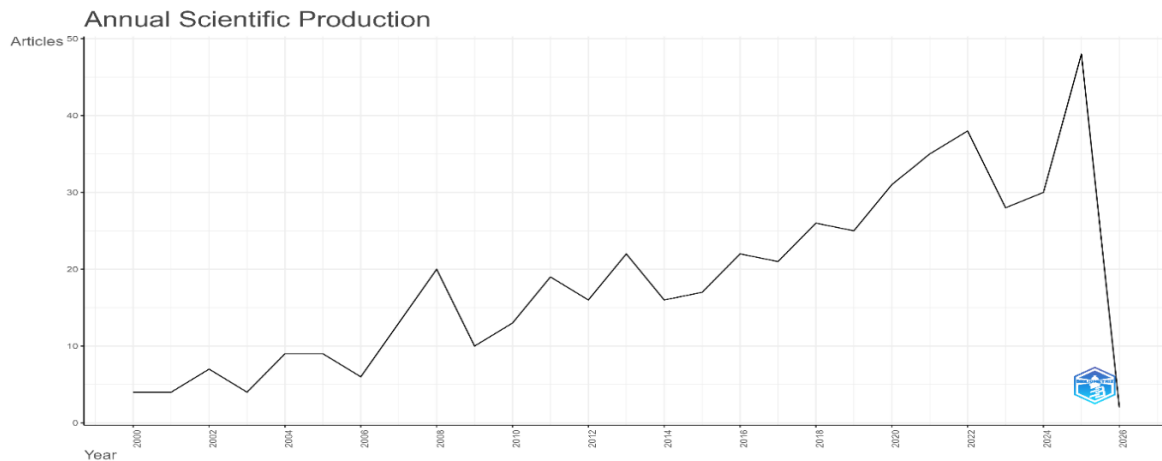
Source: Authors compilation from Web of Science, 2026

The distribution highlights a preference for traditional journal articles over other forms of scholarly communication.

Annual scientific production

Figure 2 below depicts the trend of annual scientific production related to the Water-Agriculture-Tourism interlinkage in Europe. It is clear that there has been a progression from a nascent and fragmented Water-Agriculture-Tourism interdependency research domain up until the early 2000s to a rapidly expanding and increasingly mature Water-Agriculture-Tourism nexus interdisciplinary research domain from the early 2020s onwards. Indeed, while there was a low and fluctuating level of scientific production from 2000 to 2007, from around 2008 onwards, there was a clear increase in scientific production related to the WAT interrelationship. This increase indicates the beginning of the Water-Agriculture-Tourism linkage concept due to the rising concerns related to water scarcity, climate change, and sustainable development.

Figure 2. Annual scientific production



Source: Derived from research data WoS, using R-Biblioshiny (2026)

A sharp rise after 2020, peaking in 2025, highlights intensified scholarly attention aligned with sustainability agendas and recovery strategies following the COVID-19 pandemic.

Temporal/Thematic evolution

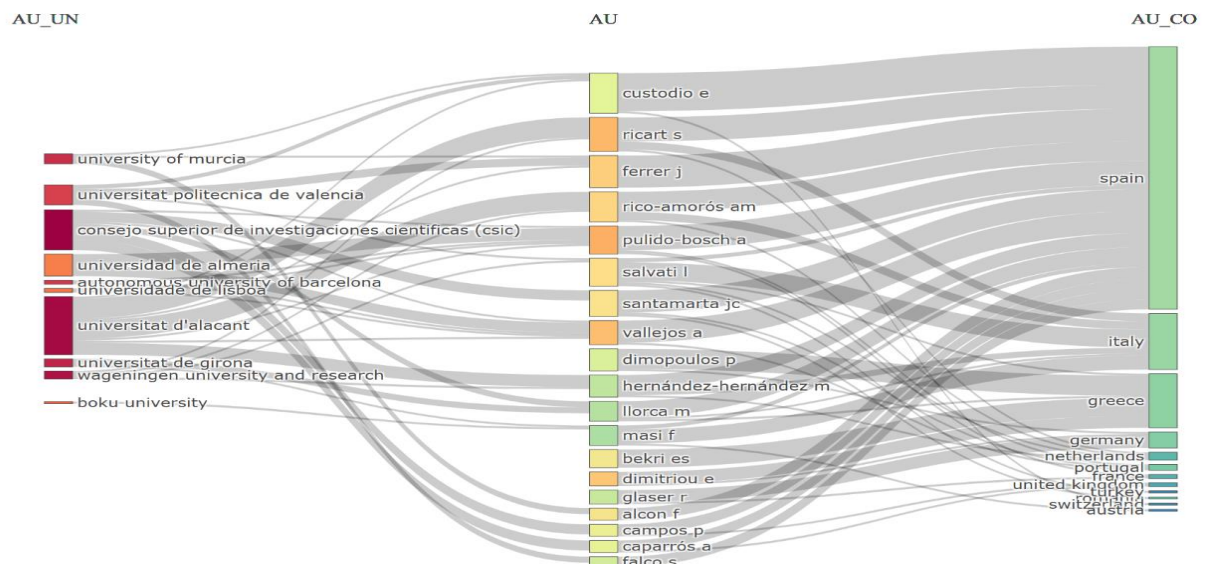
The pattern of thematic and chronological development of Water–Agriculture–Tourism (WAT) interrelationship is as presented in figure 3. Research in Europe shows a smooth

The VOSviewer visualization (Figure 4) shows the central theme of “water management,” along with its strong ties to the themes of “agriculture,” “irrigation,” “tourism,” and “ecosystem services”. The visualization also shows the importance of environmental sustainability, as it is linked to “biodiversity,” “land use,” and “ecosystem services”. The strong connection to the theme of climate change also shows the importance of environmental stress on the management of water resources stress (van Eck & Waltman, 2010). The visualization shows the importance of the theme of “water management,” which integrates the environmental, economic, and policy aspects (Santos, 2025; Valenti, 2025; van Eck & Waltman, 2010).

Three Field Plot-Affiliations, Authors and Country

Figure 5 shows a Three-field diagram that tracks the flow of scholarly contribution from authors’ affiliations (AU_UN) to individual authors (AU) and finally to their corresponding countries of origin (AU_CO). The main source of research contribution comes from Spanish institutions, including the University of Murcia, Universitat Politècnica de València, and Consejo Superior de Investigaciones Científicas (CSIC), with significant ties to prominent authors, including Custodio E., Ricart S., and Rico-Amorós A.M., finally culminating in Spain as the main source of research contribution. Secondary sources of contribution come from Italy, Greece, and other European countries, implying moderate international collaboration, with ties to Germany, the Netherlands, and the United Kingdom being less significant. The figure shows a highly centralized network of research contribution dominated by Spanish academia, with little but significant international collaboration patterns. Figure 5 shows the Three-Field Diagram.

Figure 5. Three field diagram



Source: Authors computations based on biblioshiny analysis (2026)

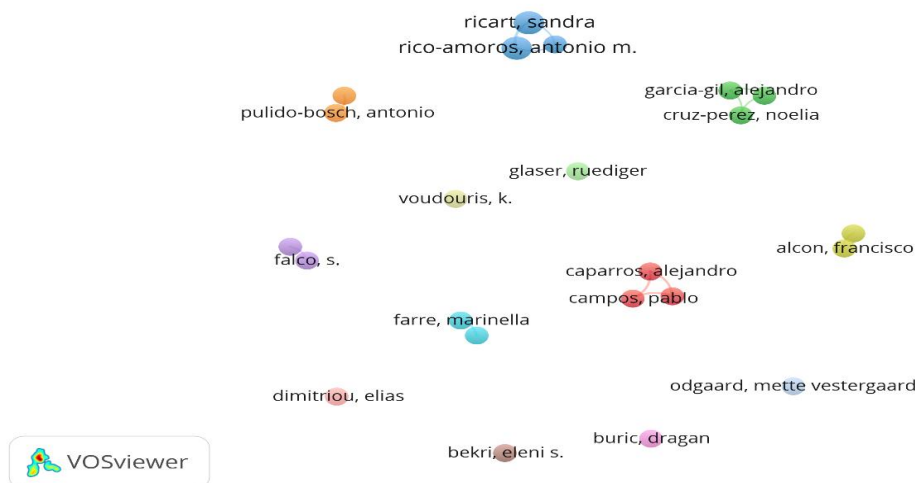
This distribution underscores the Mediterranean basin as both a geographic hotspot and a thematic anchor for interrelationship research, while also highlighting opportunities to expand

collaboration with Central and Northern European countries to encompass diverse hydrological regimes and governance frameworks.

Collaboration pattern

The co-authorship network visualization in figure 6 below reveals a fragmented and clustered pattern of collaborative research, whereby small groups of authors form distinct clusters with minimal inter-cluster connectivity. The most prominent clusters include the collaborations between Ricart S. and Rico-Amorós A.M., as well as those between García-Gil A. and Cruz-Pérez N., which indicate high levels of inter-author partnership. Other clusters, such as the one involving Caparrós A. and Campos P., and individual researchers such as Pulido-Bosch A. or Falcon S., seem relatively isolated.

Figure 6. Co-authorship network visualization



Source: Authors computations based on VOSviewer analysis (2026)

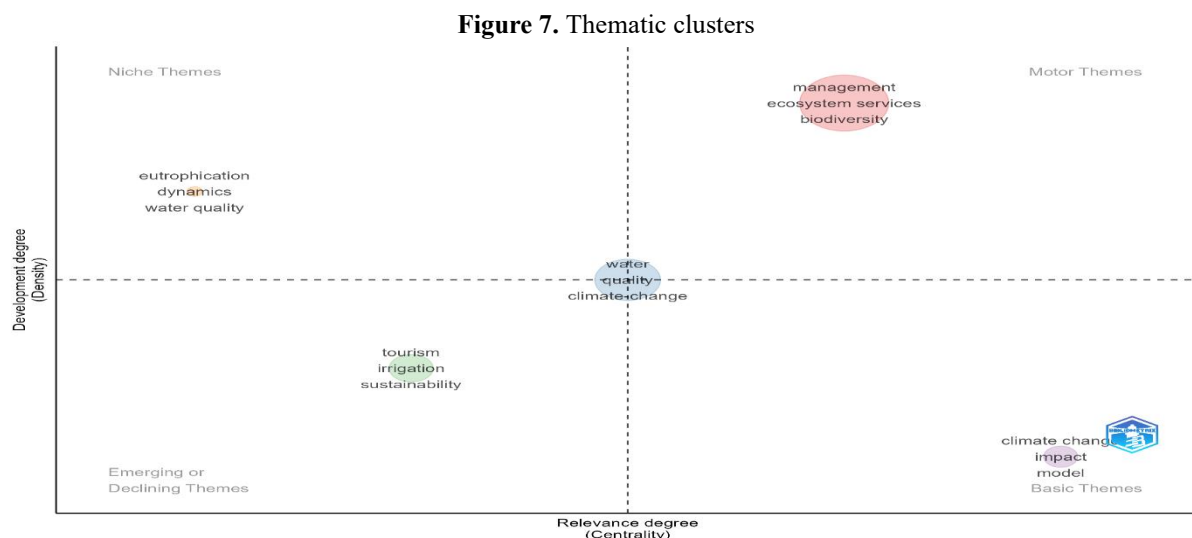
A spatial separation of clusters suggests the overall fragility of the network, whereby there exist few bridging authors connecting the clusters (Lengua-Lengua, 2018). The overall visualization reveals a decentralized pattern of collaborative research, whereby small, interconnected groups of researchers prevail, rather than a highly integrated network of scholars.

Thematic clusters

A thematic map presented in figure 7 shows the topics of interest considering centrality (relevance) and density (development) divided into four quadrants, a common approach in bibliometric and science mapping analysis (Durán-Sánchez et al., 2018). In the motor themes (top right), the terms “management,” “ecosystem services,” and “biodiversity” are highly developed and central to the entire map, meaning they are well-established and drive the WAT interlinkage. In the basic themes (bottom right), “climate change,” “impact,” and “model” are important and widely connected but less internally developed, serving as foundational topics that support broader studies (Cheng et al., 2022). In the niche themes (top left), “eutrophication,” “dynamics,” and “water quality” are well-developed but peripheral, indicating specialized areas with limited integration into WAT interlinkage. In the emerging or declining themes (bottom left), “tourism,” “irrigation,” and “sustainability” have low

development and centrality, suggesting they are either new areas gaining attention or older topics losing relevance. On the other hand, “water,” “quality,” and “climate change,” which are located at the centre of the map, are transversal themes that integrate different domains of interest. Overall, the map indicates a research landscape where environmental management and ecosystem-focused studies dominate, while water-related and sustainability topics are evolving in importance (Aria & Cuccurullo, 2017).

This paper has revealed significant consistency with some of the prominent Sustainable Development Goals (SDGs), namely the United Nations’ SDG 6 (Clean Water and Sanitation), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action), through the promotion of resource efficiency, environmental sustainability, and climate resilience. Furthermore, the Water–Agriculture–Tourism interlinkage research also contributes to achieving SDG 15 (Life on Land) by focusing on biodiversity. In the context of the European policy framework, the Water–Agriculture–Tourism (WAT) nexus research directly contributes to the Common Agricultural Policy (CAP) by promoting the use of sustainable water resources, efficient irrigation systems, and environmentally friendly agricultural practices, which are core elements of CAP. In addition, (WAT) interdependency research is also consistent with the EU Tourism Strategy by promoting sustainable tourism development that addresses water stress and environmental pressures, particularly in water-scarce and environmentally fragile areas such as the Mediterranean region.



Source: Authors computations based on biblioshiny analysis (2026)

Conclusion

This study provides a comprehensive bibliometric assessment of the Water–Agriculture–Tourism nexus in Europe, highlighting (1) the field’s evolution from a fragmented and low-output area in the early 2000s to a more integrated and rapidly expanding domain, with sustainability and ecosystem services as key themes. It also shows (2) that while influential contributors and research clusters have emerged, collaboration remains limited across countries and disciplines, indicating the need for stronger institutional support and knowledge exchange. Additionally, the study identifies (3) major research hotspots, including water management, climate change, and sustainable tourism, alongside persistent gaps in integrated quantitative modelling, policy evaluation, and comparative regional analyses. To address these gaps, (4) future research should focus on developing predictive, policy-relevant models that capture

sectoral interdependencies, while leveraging advanced tools such as remote sensing, GIS, and big data analytics to improve data-driven and spatial analyses. Overall, (5) greater interdisciplinary collaboration and more robust, policy-oriented research frameworks are essential to support sustainable development in Europe.

References

- Abdillah, R. I. H. F. S. P. Y. (2025). Water Resources in Tourism Research: Trends in Sustainable Planning Approaches. *IOP Conference Series: Earth and Environment*. <https://doi.org/10.1088/1755-1315/1570/1/012005>
- Ali, M. H. (2026). Water Footprint in Agriculture: Framework and Conservation Approaches. *Asian Journal of Advances in Agricultural Research*. <https://doi.org/10.9734/ajaar/2026/v26i1699>
- Ansari, A., Wuryandani, S., Pranesti, A., Telaumbanua, M., Ngadisih, Hardiansyah, M. Y., Alam, T., Martini, T., Yadav, S., & Dixon, J. (2023). Optimizing water-energy-food nexus: achieving economic prosperity and environmental sustainability in agriculture. *Frontiers in Sustainable Food Systems*. <https://doi.org/10.3389/fsufs.2023.1207197>
- Antriyandarti, E., Ardila, I. A., Syarif, J. A., Agustin, L., Cahyani, L. D., Panemuan, R. G., & Nugroho, S. (2024). Adapting to climate change: Exploring tourism vulnerability and agricultural development in Gedangan Village. *Ecotourism and Environment Conservation*. <https://doi.org/10.61511/ecotour.v1i2.2024.1075>
- Arampatzis, G. S. V. P. G. (2024). Water Governance for Climate-Resilient Agriculture in Mediterranean Countries. *Water*. <https://doi.org/10.3390/w16081103>
- Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975. <https://doi.org/10.1016/J.JOI.2017.08.007>
- Bréthaut, L. de S. A. L. M. H. S. S. C. (2016). A Methodology to Assess the Water Energy Food Ecosystems Nexus in Transboundary River Basins. *Multidisciplinary Digital Publishing Institute*. <https://doi.org/https://doi.org/10.3390/w8020059>
- Carvalho, L., Mackay, E. B., Cardoso, A. C., Baattrup-Pedersen, A., Birk, S., Blackstock, K., Borics, G., Borja, Á., Feld, C. K., Ferreira, M. T., Globevnik, L., Grizzetti, B., Hendry, S., Hering, D., Kelly, M., Langaas, S., Meissner, K., Panagopoulos, Y., Penning, E., ... Solheim, A. L. (2018). Protecting and restoring Europe’s waters: An analysis of the future development needs of the Water Framework Directive. *Elsevier BV*. <https://doi.org/https://doi.org/10.1016/j.scitotenv.2018.12.255>
- Cheng, Z., Yan, S., Song, T., Cheng, L., & Wang, H. (2022). Adaptive water governance research in social sciences journals: a bibliometric analysis. *Water Policy*, 24(12), 1951–1970. <https://doi.org/10.2166/wp.2022.196>
- Dhar, A. R. (2025). Building Climate-Resilient Food Systems Through the Water–Energy–Food–Environment Nexus. *Environments*. <https://doi.org/10.3390/environments12050167>
- Durán-Sánchez, A., Álvarez-García, J., & del Río-Rama, M. de la C. (2018). Sustainable water resources management: A bibliometric overview. *Water (Switzerland)*, 10(9). <https://doi.org/10.3390/w10091191>
- Elshorbagy, A. (2021). Water-Energy-Food Nexus: Rethinking the Integrated Resources Management and Modeling. *Proceedings of the International Conference of Recent Trends in Environmental Science and Engineering*. <https://doi.org/10.11159/RTESE21.003>
- G.-Fivos Sargentis, R. I. (2024). The impacts of altering biodiversity to the Water–Energy–Food nexus: case study North Euboea, Greece. *Discover Water*. <https://doi.org/10.1007/s43832-024-00165-y>
- Judijanto, L. (2025). Water-Energy-Food Nexus in Arid Regions: A Bibliometric Review of Integrated Resource Management in Agriculture. *West Science Interdisciplinary Studies*. <https://doi.org/10.58812/wsis.v3i10.2301>
- Lam, W. S., Lam, W. H., & Lee, P. F. (2023). A Bibliometric Analysis of Digital Twin in the Supply Chain. *Mathematics*, 11(15). <https://doi.org/10.3390/math11153350>
- Lengua-Lengua, F. J. G. Y. N. I. (2018). Tourism and Sustainability: A Bibliometric and Visualization Analysis. *Multidisciplinary Digital Publishing Institute*. <https://doi.org/https://doi.org/10.3390/su10061976>
- Li, M. L. Q. F. V. S. Y. J. D. L. C. Z. T. (2019). An optimal modelling approach for managing agricultural water-energy-food nexus under uncertainty. *Science of the Total Environment*. <https://doi.org/10.1016/j.scitotenv.2018.09.291>

- Low, N. C.-A. A. C. S.-R. M. C. A. B. M. O. (2025). Unveiling the Nexus of Scientific Production, Water Resource Management, and Global Water Challenges. *Earth Sciences Research Journal*. <https://doi.org/10.15446/esrj.v28n4.114415>
- Mabhaudhi, L. N. C. T. S. M. T. D. S. L. T. (2025). Transforming Agricultural Water Management Through the Water–Energy–Food Nexus: Trends, Opportunities, Barriers and Solutions. *Irrigation and Drainage*. <https://doi.org/10.1002/ird.70032>
- Matzarakis, A. B. L. H. L. S. de A. W. A. (2025). Impact of Climate Change on the Tourism Potential of Northeastern Brazil: Trend Analysis and Future Perspectives. *Sustainability*. <https://doi.org/10.3390/su17125290>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., Antes, G., Atkins, D., Barbour, V., Barrowman, N., Berlin, J. A., Clark, J., Clarke, M., Cook, D., D’Amico, R., Deeks, J. J., Devereaux, P. J., Dickersin, K., Egger, M., Ernst, E., Gøtzsche, P. C., ... Tugwell, P. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. In *PLoS Medicine* (Vol. 6, Number 7). Public Library of Science. <https://doi.org/10.1371/journal.pmed.1000097>
- Montsiemang, S. S. M. K. D. T. (2024). Tackling Water and Waste Management Challenges Within the Tourism and Hospitality Industry: A Sustainable Development Goals Perspective. *Water*. <https://doi.org/10.3390/w16243545>
- Olimpia Neagu, M. C. T. (2019). The Relationship between Economic Complexity, Energy Consumption Structure and Greenhouse Gas Emission: Heterogeneous Panel Evidence from the EU Countries. *Multidisciplinary Digital Publishing Institute*. <https://doi.org/10.3390/su11020497>
- Raza, A., Khare, T., Zhang, X., Rahman, M., Hussain, M., Gill, S., Chen, Z., Zhou, M., Hu, Z., & Varshney, R. (2025). Novel Strategies for Designing Climate-Smart Crops to Ensure Sustainable Agriculture and Future Food Security. *Journal of Sustainable Agriculture and Environment*. <https://doi.org/10.1002/sae2.70048>
- Santos, E. (2025). From Desalination to Governance: A Comparative Study of Water Reuse Strategies in Southern European Hospitality. *Sustainability*. <https://doi.org/10.3390/su17156725>
- Sargentis, G., Baroudi, S., Angelidis, M.-A., Arvanitidis, I., Mamassis, N., & Ioannidis, R. (2026). Restoring the Resilience of Water-Energy-Food Nexus Based on Desalination through Biomass Management: Case Study West Mani, Greece. *Advances in Environmental and Engineering Research*. <https://doi.org/10.21926/aer.2601005>
- Tawse-Garcia, C., Valdez, R., Gustine, R., Tracy, E. E., Larsen, W. J., Auerbach, D., V., M. P., Mukerji, R., Premier, A., Warner, B., & Boll, J. (2025). “To Irrigate or Not?” Is the Wrong Question: Exploring the Triple Bottom Line of Climate Adaptation for Dairy Farmers in Los Lagos, Chile. *Case Studies in the Environment*. <https://doi.org/10.1525/cse.2025.2470531>
- Valenti, G. M. V. M. G. M. A. T. F. (2025). Spatial Analysis of Agricultural Waste and By-Products to Tackle the Water–Energy Nexus in Rural Mozambique. *Global Challenges*. <https://doi.org/10.1002/gch2.202500339>
- van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>

THE DEVELOPMENT OF E-COMMERCE AND THE CHALLENGES OF CONSUMER RIGHTS PROTECTION IN THE ALBANIAN CONTEXT

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Abstract

Global digital transformation constitutes one of the most consequential processes of our era, exerting a direct impact on economic, social, and cultural development. It has reshaped international communication, rendering it more immediate and inclusive, while simultaneously opening new avenues for global trade through digital platforms and innovative business models. Within this new economic environment, e-commerce has emerged as a central pillar of growth.

In Albania, the expansion of e-commerce acquires particular significance in the context of the country's prospective accession to the European Union, which necessitates a unified and harmonized approach aligned with European standards. The proliferation of online platforms and the transition from traditional to digital transactions have intensified the imperative of safeguarding consumer rights

Domestically, the regulatory framework is established through Law No. 9902/2008 “On Consumer Protection” as amended, Law No. 10 128/2009 “On Electronic Commerce” as amended, and Law No. 9880/2010 “On Electronic Signatures” as amended. Nevertheless, implementation gaps persist, underscoring the need for harmonization of Albanian legislation with the EU acquis to ensure effective consumer protection and foster trust in digital trade.

This paper seeks to answer the main research question: Does the current Albanian legal framework provide a level of consumer protection comparable to that guaranteed under EU law in electronic transactions? The analysis proceeds from the hypothesis that notable divergences remain between Albanian legislation and the EU acquis, particularly in relation to key directives such as Directive 2000/31/EC “On Electronic Commerce”, Directive 2011/83/EU “On Consumer Rights”, and Directive 2005/29/EC “On Unfair Commercial Practices”.

Employing a normative-comparative methodology, the paper examines international instruments, including UNCITRAL recommendations on electronic commerce, alongside existing administrative and judicial practices in Albania. This approach seeks to evaluate not

only the formal alignment of Albanian legislation with international standards but also the practical effectiveness of consumer protection in the online environment.

The findings indicate that Albania has laid important foundations for the regulation of e-commerce and consumer protection. However, achieving full harmonization with the EU acquis requires further reforms, particularly in the horizontal alignment of legislation and the strengthening of enforcement mechanisms

Keywords: *e-commerce; consumer protection; legal harmonization; EU directives; legal certainty.*

Introduction

The economic, social, technological, and digital infrastructural transformations of recent decades have profoundly reconfigured not only the fabric of everyday life but also the modalities through which domestic legislation responds to emergent realities. These developments underscore the imperative for rigorous legal regulation and institutional discipline, with the overarching objective of safeguarding the rights of all actors engaged in novel economic relations. The rapid expansion of the digital economy has fundamentally transformed commercial transactions and the relationship between consumers and market operators. E-commerce has emerged as one of the most dynamic sectors of the global marketplace, reshaping traditional models of contracting, information exchange, and dispute resolution. Initially conceived as an alternative mode of exchanging goods and services via the internet, it has progressively matured into a consolidated sector that now constitutes a significant component of both the global and national economy. The proliferation of digital platforms has yielded tangible benefits for consumers, including enhanced accessibility, broader choice, and more efficient time management, while simultaneously introducing pressing challenges concerning security, transparency, and consumer protection. As reliance on digital platforms intensifies, the demand for effective, transparent, and rights-based mechanisms of consumer protection has become a central priority for legislators and policymakers worldwide.

Albania's legal framework on consumer protection and electronic commerce has undergone significant development over the past decade, particularly through the adoption of Law No. 9902/2008 “*On Consumer Protection*” and Law No. 10/2014 “*On Electronic Commerce*”. While these enactments represent important steps towards aligning domestic legislation with European norms, notable gaps persist in institutional organization, procedural safeguards, the availability of ADR/ODR mechanisms, and the incorporation of UNCITRAL principles into national law. As Albania advances towards deeper integration into the EU's Digital Single Market, strengthening the legal and institutional architecture governing online consumer disputes emerges not only as a regulatory priority but also as an economic necessity.

1.1 Historical Evolution of Consumer Rights in the Digital Environment

Consumer protection has emerged as one of the most significant developments of modern economic and public law, reflecting a broader rebalancing of power within market economies. Prior to the 1960s, consumers were protected only indirectly, primarily through classical civil law tools such as contractual liability and tort law, based on the assumption that contracting parties were formally equal. A decisive turning point came in the early 1960s with the recognition of consumer rights as a distinct policy concern, notably through President John F. Kennedy’s 1962 articulation of core consumer rights¹. This shift from passive to active protection was subsequently reinforced at the international level through the United Nations Guidelines for Consumer Protection, which established a shared global reference framework². Within the European Union, consumer protection initially developed as an indirect consequence of market integration, but gradually evolved into an autonomous policy field, beginning with the First Consumer Policy Program in 1975³ and later consolidated through treaty reform, particularly with the Maastricht and Lisbon Treaties⁴. Through harmonizing legislation, the EU has progressively constructed a high and relatively uniform level of consumer protection across Member States⁵. The advent of the internet in the late twentieth century marked a decisive shift in global trade, enabling cross-border transactions at unprecedented speed and scale. This environment created both opportunities and vulnerabilities for consumers. The absence of physical inspection, the anonymity of traders, jurisdictional conflicts, and enforcement difficulties exposed the limitations of traditional consumer protection mechanisms. In response, jurisdictions worldwide began adapting their legal systems to the dynamics of digital markets, giving rise to a distinct framework of consumer rights in the online sphere. In the European Union, the evolution of consumer protection in the digital environment has been closely tied to the development of the Digital Single Market. From the early E-Commerce Directive (2000/31/EC) to later instruments such as the Consumer Rights Directive (2011/83/EU)⁶, the Unfair Commercial Practices Directive (2005/29/EC), and the ADR/ODR frameworks, the EU progressively constructed a comprehensive system for safeguarding consumer interests in online transactions. This trajectory reflects the EU’s strategic objective of harmonizing rules across Member States, enhancing legal certainty, and strengthening consumer trust in cross-border digital commerce⁷. Parallel to these regional initiatives, international organizations such as the United Nations Commission on International Trade Law (UNCITRAL) have played a pivotal role in establishing globally recognized standards for electronic commerce. The Model Law on Electronic Commerce (1996) introduced foundational principles such as functional equivalence and technological neutrality, granting electronic communications the same legal validity as paper-based instruments⁸. These principles influenced national reforms worldwide and paved the way for subsequent developments in electronic signatures, online dispute resolution, and digital contracting. UNCITRAL’s work provided a coherent and adaptable framework for addressing the legal uncertainties of the digital marketplace.

¹ Kennedy, J. F. (1962). Special message to the Congress on protecting consumer interests. The White House.

² United Nations. (2015). United Nations guidelines for consumer protection.

³ Council of the European Communities. (1975). Resolution on a preliminary programme for a consumer protection policy.

⁴ European Union. (2009). Treaty on the Functioning of the European Union.

⁵ European Commission. (2023). Consumer protection in the digital age.

⁶ European Parliament and Council. (2011). Directive 2011/83/EU.

⁷ European Commission. (2020). Digital contracts rules.

⁸ UNCITRAL. (1996). Model Law on Electronic Commerce.

1.2 European Union Legal Framework on E-Commerce and Consumer Rights

The European Union has developed one of the most comprehensive and integrated legal frameworks regulating electronic commerce and consumer protection worldwide⁹. This framework is anchored in the objective of creating a Digital Single Market (DSM) in which goods, services, capital, and information circulate freely across Member States under harmonized and predictable rules¹⁰. A foundational component of this regime is the E-Commerce Directive (2000/31/EC), which provides the legal basis for information society services, electronic contracts, and intermediary liability¹¹. Complementing this framework, the Consumer Rights Directive (2011/83/EU) harmonizes rules on distance contracts and provides essential rights, including pre-contractual information, withdrawal periods, delivery obligations, and refund mechanisms¹². By standardizing these rights across the Union, the Directive reduces fragmentation and ensures that consumers engaging in cross-border e-commerce benefit from consistent protections regardless of the trader's location¹³. Another critical element is the Unfair Commercial Practices Directive (2005/29/EC), which prohibits misleading, aggressive, or otherwise unfair practices in both online and offline contexts⁵. In the digital environment, it addresses deceptive marketing techniques, hidden charges, and manipulative interface designs¹⁴. Together with the Unfair Contract Terms Directive (93/13/EEC), it forms a substantial part of the legal architecture governing the balance between consumer and trader rights in electronic commerce¹⁵. Central to consumer confidence in cross-border e-commerce is the availability of effective dispute resolution mechanisms. The EU addresses this need through Directive 2013/11/EU on Alternative Dispute Resolution (ADR Directive) and Regulation (EU) No 524/2013 on Online Dispute Resolution (ODR Regulation)¹⁶. The ADR Directive obliges Member States to provide impartial, accessible, and cost-effective bodies for resolving disputes with traders, while the ODR Regulation establishes a unified EU-level platform enabling disputes to be resolved online without recourse to traditional litigation. These instruments underscore the EU's recognition that effective redress is indispensable for building trust in the digital economy. The EU legal framework also interacts with broader principles of data protection and cybersecurity, particularly through the General Data Protection Regulation (GDPR) and the NIS2 Directive. These instruments ensure that consumer rights in digital commerce are accompanied by strong protection for personal data and digital security—key elements in sustaining confidence in online environments.

⁹ European Commission. (2023). Consumer protection in the digital age. Publications Office of the European Union.

¹⁰ European Union. (2009). Consolidated version of the Treaty on the Functioning of the European Union. Official Journal of the European Union, C 202, 47–200.

¹¹ European Parliament and Council. (2000). Directive 2000/31/EC on electronic commerce. Official Journal of the European Communities, L 178, 1–16.

¹² European Parliament and Council. (2011). Directive 2011/83/EU on consumer rights. Official Journal of the European Union, L 304, 64–88.

¹³ European Parliament and Council. (2005). Directive 2005/29/EC concerning unfair commercial practices. Official Journal of the European Union, L 149, 22–39.

¹⁴ Council of the European Communities. (1993). Directive 93/13/EEC on unfair terms in consumer contracts. Official Journal of the European Communities, L 95, 29–34.

¹⁵ European Parliament and Council. (2013). Directive 2013/11/EU on ADR. Official Journal of the European Union, L 165, 63–79.

¹⁶ European Parliament and Council. (2016). Regulation (EU) 2016/679 (GDPR). Official Journal of the European Union, L 119, 1–88.

European Parliament and Council. (2022). Directive (EU) 2022/2555 (NIS2 Directive).

1.3 International Standards and UNCITRAL Model Laws on Electronic Commerce

The development of international standards for electronic commerce has been significantly shaped by the work of the United Nations Commission on International Trade Law (UNCITRAL), which has played a central role in harmonizing and modernizing global legal frameworks governing digital transactions. As electronic commerce expanded rapidly during the late twentieth and early twenty-first centuries, divergent national regulations created barriers to cross-border trade, legal uncertainty, and uneven levels of consumer protection. UNCITRAL’s approach is grounded in the principles of technological neutrality, functional equivalence, and interoperability, all designed to ensure that legal standards accommodate evolving digital technologies without privileging specific technical solutions. Technological neutrality requires that legislation governing electronic commerce remains independent of hardware, software, or communication systems. The *UNCITRAL Model Law on Electronic Commerce* (1996) was the first major international instrument to articulate these principles. It established essential rules for the formation and validity of electronic contracts, the use of electronic signatures, and the legal recognition of electronic records. By clarifying when electronic communications satisfy statutory requirements for “writing,” “signature,” or “original” documents, the Model Law resolved longstanding uncertainties. Its widespread adoption across diverse legal traditions confirms its role as a global benchmark for regulating digital commerce. Building on this foundation, the *UNCITRAL Model Law on Electronic Signatures* (2001) elaborated rules for the legal recognition of electronic authentication methods. In response to the proliferation of online business-to-consumer and business-to-business transactions, UNCITRAL later addressed dispute resolution in the digital environment. The *UNCITRAL Technical Notes on Online Dispute Resolution* (2016) provide guidance on designing ODR systems that are accessible, impartial, secure, and efficient. Although non-binding, the Technical Notes represent the most comprehensive international guidance for resolving low-value or high-volume disputes arising from e-commerce. For countries such as Albania, aspiring to integrate more deeply into the European and global digital economy, UNCITRAL standards provide a valuable blueprint for legislative modernization. They offer adaptable, internationally recognized models that facilitate harmonization with both EU requirements and the best global practices. In this sense, UNCITRAL’s work serves not only as a source of legal principles but also as a practical tool for aligning national legislation with the demands of an increasingly interconnected digital marketplace.

1.4. Albanian Legal Framework Governing E-Commerce and Consumer Protection

The Albanian legal framework governing electronic commerce and consumer protection has developed gradually over the past two decades, alongside the country’s commitments to market liberalization, digital transformation, and approximation with the EU acquis. The cornerstone of consumer protection in Albania is Law No. 9902/2008 “*On Consumer Protection*”, which establishes the general legal basis for safeguarding consumer rights across all sectors, including electronic commerce. The law enshrines fundamental principles such as the right to information, protection against unfair commercial practices and misleading advertising, and access to complaint and redress mechanisms. Subsequent amendments have sought to approximate EU consumer law, particularly in relation to distance contracts and unfair commercial practices. Nevertheless, the law does not yet fully address the specific features of online transactions, including the role of digital platforms, the conformity of digital content, and the availability of effective online dispute resolution mechanisms.

This framework is complemented by Law No. 10/2014 “*On Electronic Commerce*”, which transposes key elements of Directive 2000/31/EC on electronic commerce. The law regulates information society service providers, governs the formation of electronic contracts, and imposes transparency obligations on online traders. It also defines the legal status of commercial communications and establishes basic requirements for the provision of online services. Despite providing a necessary legal foundation, implementation remains limited due to insufficient administrative capacity, weak oversight, and the absence of specialized structures for supervising digital markets.

A further relevant instrument is Law No. 107/2015 “*On Electronic Identification and Trusted Services*”, which reflects the principles of the EU eIDAS Regulation. This law governs electronic signatures, electronic seals, timestamps, and trust services essential for secure electronic transactions. In practice, however, the uptake of these instruments remains modest, and their integration into consumer-facing e-commerce platforms is still evolving, affecting legal certainty in digital contracting, particularly in cross-border contexts. Recent digitalization initiatives, including national strategies on e-government and the development of the “e-Albania” platform, reflect a growing commitment to digital public service delivery. However, these advances have not yet been matched by comprehensive reforms in digital consumer protection, cybersecurity safeguards, or dispute resolution mechanisms within the e-commerce regulatory framework. Overall, Albania’s legal regime demonstrates a clear orientation towards alignment with EU norms and UNCITRAL principles, yet significant gaps persist in legislative coverage, institutional capacity, and effective enforcement. Addressing these shortcomings, particularly in relation to platform regulation, ADR/ODR mechanisms, and the supervision of online markets, is essential for strengthening consumer trust and supporting Albania’s broader objective of integration into the European Digital Single Market.

II. Methodology

2.1. Research Questions and Objectives

The methodological framework of this study is structured around the following central research question: “To what extent does the Albanian legal framework governing electronic commerce and consumer protection align with the European Union *acquis* and the international standards developed by UNCITRAL?”

1. To address this overarching question, the study pursues a set of objectives:
2. Identify and analyses the core substantive and procedural principle, underpinning consumer protection in digital markets within the European Union framework and relevant UNCITRAL instruments.
3. Examine the content, scope, and practical application of Albania’s legal framework governing electronic commerce, digital contracting, and consumer rights.
4. Assess the degree of harmonization and identify gaps, inconsistencies, or challenges in comparison with EU directives, regulations, and UNCITRAL model laws.
5. Develop evidence-based recommendations aimed at supporting Albania’s further alignment with European and international best practices.

2.2. Methodological Approach

This study adopts a comparative legal methodology, complemented by doctrinal legal analysis and elements of normative and institutional evaluation, to assess Albania’s regulatory

framework for electronic commerce and consumer protection considering European Union and UNCITRAL standards. The comparative legal method constitutes a core component of the research, enabling a structured examination of the EU *acquis* governing consumer protection and electronic commerce; the UNCITRAL Model Laws and relevant technical instruments. The comparison is conducted using a functional approach, focusing on how different legal systems respond to analogous regulatory challenges, such as the legal validity of electronic contracts, transparency obligations for online platforms, and the availability of effective online dispute resolution mechanisms. This method prioritizes legal functionality and regulatory effectiveness over formal similarities, allowing for an assessment of how legal rules operate in practice.

Doctrinal analysis method is employed to interpret and systematize the relevant legal sources, including legislation, EU directives and regulations, and UNCITRAL model instruments, as well as judicial interpretation where available. This analysis involves close textual examination of normative provisions, identification of underlying legal principles and policy objectives, assessment of coherence, scope, and enforcement mechanisms and evaluation of the internal consistency of the applicable legal framework.

In addition to doctrinal and comparative legal analysis, the study incorporates empirical evidence drawn from administrative practice. In particular, it relies on official statistics published by the Directorate General for Alternative Dispute Resolution (DGADR) for the period February–December 2025, established pursuant to Law No. 9902/2008 and Council of Ministers Decision No. 1089/2020. Notwithstanding the fact that the legal basis for the establishment of the General Directorate for Alternative Dispute Resolution had been in place for several years, the institution only became operational in 2025, highlighting a significant delay between formal legislative alignment and effective institutional implementation. Statistical data provide valuable insight into the practical functioning, effectiveness, and structural limitations of ADR mechanisms in consumer disputes.

Normative and institutional evaluation methods include an evaluation of the institutional competence and resources of Albanian regulatory authorities, the practical availability and effectiveness of enforcement and redress mechanisms and the coherence of Albania’s digital and consumer protection policies with EU and UNCITRAL standards.

2.3. Data Sources

This study draws on a combination of primary legal sources, secondary academic literature, and policy-oriented materials, ensuring a comprehensive understanding of both the normative framework and its practical implementation. Primary sources for this study consist of European Union legislation, UNCITRAL instruments, and relevant Albanian legal acts, which together establish the core normative framework for the regulation of electronic commerce and consumer protection. Secondary sources include academic literature, European Commission reports, UNCITRAL documentation, and national policy papers, which support the analytical and interpretative dimensions of the study. Supplementary sources consist of institutional reports and international comparative analyses, providing additional insight into the practical and policy context of consumer protection in digital markets.

2.4. Limitations of the Research

The scope and findings of this study are subject to certain methodological limitations, which should be considered when interpreting its conclusions. First, the availability of empirical data on consumer disputes in Albania’s digital market is limited. The absence of comprehensive and publicly accessible quantitative data restricts the analysis primarily to normative sources and institutional assessments, rather than empirical measurement of enforcement outcomes or consumer experiences. Second, the research is conducted within a highly dynamic regulatory environment. EU digital market regulation continues to evolve rapidly, particularly following the adoption of instruments such as the Digital Services Act (DSA) and the Digital Markets Act (DMA). The analysis reflects the state of legislation and policy developments up to early 2026 and may not capture subsequent regulatory reforms or interpretative guidance. Third, the study is constrained by the limited availability of judicial practice in Albania concerning electronic commerce and digital consumer disputes. The relative scarcity of relevant case law reduces the extent to which judicial interpretation can be incorporated into the analysis, placing greater emphasis on legislative and institutional frameworks.

These limitations do not undermine the validity of the comparative analysis but rather delineate its analytical boundaries, underscoring the study’s focus on normative alignment and institutional capacity rather than empirical outcomes.

2.5. Ethical Considerations

This research is based exclusively on publicly available legal sources, academic literature, and policy documents. It does not involve the collection or processing of personal data, interviews, or research involving human subjects. As a result, ethical considerations are limited and primarily relate to scholarly standards of legal research. These considerations include ensuring the accurate and faithful representation of legal sources, maintaining academic integrity through proper citation and original analysis, and avoiding normative bias when assessing national legislation. All interpretations and evaluations are conducted in accordance with established principles of comparative legal methodology, with the aim of ensuring objectivity, transparency, and analytical rigor.

III. Analysis

3.1. Comparative Analysis: EU Acquis and Albanian Legislation

A comparative examination of the European Union acquis and the Albanian legal framework reveals both areas of convergence and persistent structural divergence in the regulation of electronic commerce and consumer protection. While Albania has taken meaningful steps towards approximating EU consumer law, particularly at a foundational level, its regulatory framework remains only partially aligned with the more advanced and sector-specific rules underpinning the EU Digital Single Market.

A. Substantive Consumer Rights

Under the Consumer Rights Directive (Directive 2011/83/EU), EU consumers engaged in distance and online contracts benefit from a high and uniform level of protection, including extensive pre-contractual information requirements, harmonized withdrawal rights, and clear

rules governing delivery and the transfer of risk¹⁷. Albania’s Law No. 9902/2008 “On Consumer Protection” incorporates several of these core principles, reflecting a general alignment with EU standards on transparency and unfair commercial practices¹⁸. Nonetheless, significant substantive gaps remain. Albanian legislation has not yet fully incorporated the regulatory approach introduced by the Digital Content and Digital Services Directive (Directive (EU) 2019/770)¹⁹. As a result, rules concerning the conformity of digital content and services, obligations relating to updates and interoperability, and remedies for lack of conformity remain underdeveloped. In addition, obligations relating to platform transparency, such as disclosure of ranking criteria, sponsored listings, and personalized pricing practices, are not comprehensively regulated²⁰. These omissions limit the effectiveness of consumer protection in an increasingly digital and platform-driven marketplace. The Albanian framework reflects a clear intention to approximate the European Union acquis, yet it continues to offer a more limited and less specialized level of protection in digital markets than that guaranteed under EU law⁵. As a result, consumers in Albania enjoy more limited guarantees in areas such as digital content conformity, updates, interoperability, and remedies for digital nonperformance, compared to consumers in the EU²¹.

B. Regulation of Online Service Providers

At the EU level, the E-Commerce Directive (Directive 2000/31/EC) establishes a structured framework governing online intermediaries, including information obligations, liability exemptions, and the application of the country-of-origin principle²². Albania’s Law No. 10/2014 “*On Electronic Commerce*” transposes a number of these provisions, providing a basic legal framework for online service provision. Nevertheless, the Albanian regime remains less detailed and coherent than its EU counterpart. Rules on intermediary liability leave uncertainty as to the scope of obligations applicable to hosting service providers and online platforms. Moreover, Albanian law does not yet reflect the regulatory evolution embodied in the Digital Services Act (Regulation (EU) 2022/2065), which introduces enhanced transparency requirements, algorithmic accountability, and mechanisms addressing systemic risks associated with online platforms²³. As a result, Albania’s regulatory environment lacks the depth and sophistication increasingly expected in contemporary digital markets²⁴.

C. Dispute Resolution Mechanisms (ADR and ODR)

¹⁷ European Parliament and Council. (2011). Directive 2011/83/EU on consumer rights. Official Journal of the European Union, L 304, 64–88.

¹⁸ Assembly of the Republic of Albania. (2008). Law No. 9902, “On Consumer Protection”, as amended. Official Gazette of the Republic of Albania

¹⁹ European Parliament and Council. (2019). Directive (EU) 2019/770 on certain aspects concerning contracts for the supply of digital content and digital services. Official Journal of the European Union, L 136, 1–27.

²⁰ European Commission. (2021). Guidance on the interpretation and application of Directive 2005/29/EC on unfair commercial practices. Official Journal of the European Union, C 526, 1–129.

²¹ European Commission. (2023). Consumer protection in the digital age. Publications Office of the European Union.

²² European Parliament and Council. (2000). Directive 2000/31/EC on electronic commerce. Official Journal of the European Communities, L 178, 1–16.

²³ European Parliament and Council. (2022). Regulation (EU) 2022/2065 on a Single Market for Digital Services (Digital Services Act). Official Journal of the European Union, L 277, 1–102.

²⁴ European Commission. (2023). Consumer protection in the digital age. Publications Office of the European Union.

The EU *acquis* places strong emphasis on the availability of accessible, effective, and impartial dispute resolution mechanisms for consumer disputes arising from online transactions. Directive 2013/11/EU requires Member States to ensure comprehensive coverage of certified ADR bodies, while Regulation (EU) No 524/2013 establishes an EU-wide Online Dispute Resolution platform tailored to digital commerce. By contrast, Albania lacks a fully developed and digitally adapted ADR/ODR framework for e-commerce disputes. While consumers may submit complaints to the Consumer Protection Commission and other sector specific bodies, these mechanisms remain largely administrative, fragmented, and ill-suited to cross border or platform-based transactions²⁵. This procedural gap substantially weakens the effective enforceability of consumer rights in electronic commerce when compared to EU standards. Existing complaint-handling bodies generally lack specialization in digital commerce and rely on traditional procedural models that are ill-suited to the speed and transnational nature of online disputes. This constitutes one of the most significant areas of divergence from EU consumer law and represents a structural obstacle to the development of consumer trust in e-commerce.

D. Enforcement and Institutional Capacity

Effective consumer protection within the EU is supported by specialized enforcement authorities and reinforced through mechanisms such as the Consumer Protection Cooperation Regulation (Regulation (EU) 2017/2394), which facilitates cross-border enforcement and coordinated action against infringements²⁶. Albania's enforcement framework remains comparatively limited. Institutions such as the Consumer Protection Commission and the Market Surveillance Inspectorate possess restricted resources and expertise dedicated specifically to digital market oversight²⁷. Mechanisms for cross-border cooperation are underdeveloped, and existing enforcement tools, including monitoring capabilities, investigatory powers, and administrative sanctions, are not fully adapted to the realities of platform-based and algorithm-driven markets²⁸. Consequently, institutional capacity remains a key constraint on Albania's effective alignment with EU standards in the digital consumer protection field²⁹.

3.2. UNCITRAL Standards as a Reference Model

The second dimension of the analysis examines Albania's alignment with key UNCITRAL instruments, particularly the Model Law on Electronic Commerce (1996), the Model Law on Electronic Signatures (2001), and the Technical Notes on Online Dispute Resolution (2016). Unlike the EU *acquis*, which reflects a regional and increasingly prescriptive regulatory approach, UNCITRAL instruments are designed to be internationally applicable and

²⁵ Assembly of the Republic of Albania. (2014). Law No. 10/2014 “On Electronic Commerce”. Official Gazette of the Republic of Albania.

²⁶ European Parliament and Council. (2017). Regulation (EU) 2017/2394 on cooperation between national authorities responsible for the enforcement of consumer protection laws. Official Journal of the European Union, L 345, 1–26.

²⁷ Assembly of the Republic of Albania. (2008). Law No. 9902, “On Consumer Protection”, as amended. Official Gazette of the Republic of Albania.

²⁸ European Commission. (2021). Guidance on the interpretation and application of Directive 2005/29/EC on unfair commercial practices. Official Journal of the European Union, C 526, 1–129.

²⁹ European Commission. (2023). Consumer protection in the digital age. Publications Office of the European Union.

technologically neutral. As such, they provide a flexible normative benchmark for assessing the modernization and coherence of national legal frameworks governing digital transactions.

A. Functional Equivalence and Electronic Communications

Albanian legislation incorporates several elements of the principle of functional equivalence through its regulatory framework on electronic commerce and electronic identification. Electronic contracts, electronic communications, and electronic signatures are formally recognized as legally valid, reflecting a general alignment with UNCITRAL’s core approach. However, this alignment remains partial.

Albanian law provides less detailed criteria for assessing the reliability and legal validity of electronic signatures than those envisaged in UNCITRAL instruments. In practice, the limited development of trust service providers further constrains the effective use of electronic signatures. Moreover, the legal framework does not comprehensively address the cross-border recognition of electronic signatures and seals, an issue central to the facilitation of international digital transactions. Consequently, while Albania has adopted the conceptual foundation of functional equivalence, it has not fully translated this principle into a robust and operational legal framework.

B. Automation and Digital Contract Formation

UNCITRAL standards explicitly recognize the legal validity of contracts concluded through automated message systems, reflecting the realities of contemporary electronic commerce, including online marketplaces and algorithm-driven transactions. In contrast, Albanian legislation acknowledges the existence of electronic contracts but provides limited guidance on contracts formed through automated processes. This regulatory gap creates uncertainty in relation to platform responsibility for automated communications, the legal effects of algorithm-based decision-making, and the allocation of liability in disputes arising from automated transactions. Compared to UNCITRAL’s emphasis on legal certainty and reliability in digital contracting, Albania’s framework remains underdeveloped in addressing the growing role of automation in electronic commerce.

C. Online Dispute Resolution (ODR)

International standards offer a useful point of reference for assessing national approaches to online consumer redress. In this regard, the UNCITRAL Technical Notes on Online Dispute Resolution underline a set of core principles that should guide the resolution of online consumer disputes, including accessibility, transparency, procedural fairness, efficiency, and technological adaptability. At present, these principles have not yet been fully translated into Albania’s regulatory or institutional framework for consumer dispute resolution³⁰.

From an institutional standpoint, responsibility for consumer protection in Albania rests primarily with the Consumer Protection Commission (CPC³¹). The Commission was established under Law No. 9902/2008 “*On Consumer Protection*”, and operational since 2009, the wider context of Albania’s efforts to approximate European Union standards. It operates as

³⁰ UNCITRAL. (2016). Technical Notes on Online Dispute Resolution. United Nations.

³¹ Assembly of the Republic of Albania. (2008). Law No. 9902, “On Consumer Protection”, as amended. Official Gazette of the Republic of Albania.

a collegial administrative body under the authority of the Ministry of Economy and Innovation and exercises nationwide jurisdiction over trader-consumer relationships that do not fall within the remit of specialized sectoral regulators. This mandate includes online sales, distance contracts, and unfair commercial practices in digital markets. Since 2018, the CPC also acts as the supervisory authority for ADR structures in sectors of public interest.

In practice, the Commission is empowered to impose sanctions for unlawful practices, review and invalidate unfair standard contract terms, and act in defense of collective consumer interests through binding administrative decisions, which remain subject to judicial review. The CPC also plays a coordinating and supervisory role in relation to alternative dispute resolution (ADR) mechanisms. Yet, despite this formal mandate, the practical development of online dispute resolution (ODR) remains limited. Disaggregated data on ADR outcomes, especially in the context of e-commerce, are scarce, and institutional experience with digital dispute resolution tools is still at an early stage. When viewed comparatively, the Commission’s legal competences largely mirror those of consumer enforcement authorities in EU Member States. Nonetheless, its operational capacity falls short of EU practice, mainly due to the absence of fully developed digital redress mechanisms and a more limited enforcement infrastructure than that available within the EU Consumer Protection Cooperation framework³².

Empirical evidence from DGADR practice demonstrates that Albania has established an operational ADR body aligned with the structural requirements of Directive 2013/11/EU. Between February and December 2025, DGADR handled 33 consumer complaints, resolving 47.8% within an average timeframe of 10 working days³³. However, unresolved and pending cases are disproportionately linked to non-responsive traders and unidentifiable online platforms, highlighting systemic weaknesses in digital consumer redress.

At the operational level, Albania currently has no dedicated national ODR platform, and existing complaint-handling procedures are not designed to support digital interfaces, user-centered design, or automated case management. Participation by traders in dispute resolution mechanisms remains largely voluntary and insufficiently incentivized. As a result, the existing framework remains only loosely connected to international best practices and does not fully respond to the specific features of e-commerce disputes, which are typically cross-border, low-value, and high-volume.

Despite these shortcomings, dispute resolution has increasingly moved to the centre of Albania’s consumer protection agenda. The Intersectoral Strategy for Consumer Protection and Market Surveillance 2024–2030 explicitly identifies ADR and ODR as key instruments for strengthening trust, legal certainty, and fairness in digital markets. This strategic emphasis signals a recognition that consumer rights in e-commerce can only be effective if they are supported by accessible and efficient redress mechanisms.

This shift is closely linked to Albania’s EU accession process, particularly under Chapter 28 (Consumer and Health Protection), as well as broader reforms associated with the EU Digital Single Market. The EU acquis goes beyond the mere transposition of substantive consumer

³² European Parliament and Council. (2017). Regulation (EU) 2017/2394 (Consumer Protection Cooperation Regulation). Official Journal of the European Union, L 345, 1–26.

³³ Directorate General for Alternative Dispute Resolution (DGADR). (2025). Annual statistical data on consumer complaints (February–December 2025). Tirana.

rights, requiring candidate countries to ensure that those rights are enforceable in practice. Within this framework, Directive 2013/11/EU on consumer ADR and Regulation (EU) No 524/2013 on ODR place strong emphasis on accessible and digital dispute resolution as essential components of consumer protection in online markets.

Against this backdrop, a core pillar of Albania’s strategy is the creation of a comprehensive national ADR system applicable across all consumer sectors, including electronic commerce and digital services. Over the next five years, planned reforms aim to establish certified ADR bodies with clear mandates and procedural safeguards, ensure that dispute resolution procedures are low-cost or free for consumers, and strengthen the role of the Consumer Protection Commission and sectoral regulators in overseeing and coordinating ADR schemes. The strategy seeks to ensure system-wide coverage so that consumers engaging in online transactions are not left without practical avenues of redress.

Beyond legislative alignment, the EU accession process increasingly focuses on administrative capacity and institutional effectiveness. In this context, well-functioning ADR and ODR mechanisms are seen as indicators of a mature consumer protection system, offering proportionate and accessible remedies and reducing reliance on court proceedings for low-value disputes. Albania’s intention to integrate ADR and ODR tools into existing digital public platforms, such as e-Albania, reflects EU expectations regarding user-friendly enforcement and improved access to justice.

Looking forward, Albania’s five-year strategy adopts a forward-looking approach by anticipating the evolution of EU digital market regulation. It envisages ODR systems compatible with EU-level platforms, capable of addressing disputes arising from online marketplaces, automated transactions, and cross-border digital services, while embedding dispute resolution obligations within broader digital market governance. In accession terms, this represents a move from formal legislative approximation towards functional convergence, addressing a long-standing concern repeatedly highlighted by EU institutions: the limited enforceability of consumer rights in practice.

Viewed in this light, ADR and ODR reform is not a marginal addition to consumer policy, but a central component of Albania’s accession pathway, linking consumer protection, digital governance, and the effective implementation of the rule of law in the digital economy.

Table 1. Comparative Assessment of EU Consumer Protection Benchmarks and Albania’s Strategic Commitments (2024–2029)

EU Accession Benchmark	EU Legal / Policy Reference	Benchmark Requirement	Status in Albania (Baseline)	Strategic Commitment (2024–2029)
Access to Alternative Dispute Resolution (ADR)	Directive 2013/11/EU	Availability of certified ADR entities covering all consumer sectors, including e-commerce	Fragmented and sector-specific ADR mechanisms; no comprehensive coverage for e-commerce	Establishment of a certified national ADR framework applicable to online consumer disputes
Online Dispute Resolution (ODR)	Regulation (EU) No 524/2013	Access to an online platform for domestic and	No national ODR platform; no	Development of a national ODR platform aligned

		cross-border e-commerce disputes	connection with EU ODR system	with UNCITRAL standards and designed for future EU interoperability
Procedural accessibility and efficiency	EU Consumer ADR/ODR acquis	ADR/ODR must be accessible, fast, inexpensive, and digital	Predominantly administrative and offline complaint mechanisms	Introduction of digital-first, user-friendly, automated dispute resolution procedures
Trader participation in ADR/ODR	Directive 2013/11/EU (Art. 1–9)	Encouragement or obligation of trader participation in ADR	Voluntary and inconsistent trader participation	Mandatory or strongly incentivized ADR/ODR participation for online traders and platforms
Platform accountability in dispute resolution	Digital Services Act (Reg. (EU) 2022/2065)	Platforms should facilitate consumer redress and transparency	Platform-specific dispute resolution duties largely absent	Introduction of platform-based dispute-resolution obligations aligned with EU digital market rules
Institutional supervision and quality control	Chapter 28 acquis	Independent oversight and quality assurance of ADR bodies	Limited administrative capacity and coordination	Strengthening institutional oversight and supervisory mechanisms
Digital public access to consumer remedies	EU digital governance principles	Integration of consumer remedies into digital public services	Fragmented digital access to complaint mechanisms	Integration of ADR/ODR services into national e-government platforms (e-Albania)
Cross-border cooperation and interoperability	EU ODR Regulation; CPC framework	Capacity to manage cross-border e-commerce disputes	Limited cross-border dispute handling	Designing ADR/ODR systems compatible with EU cooperation mechanisms
Effective enforcement of consumer rights	Chapter 28 acquis	Consumer rights must be enforceable in practice	Substantive rights exist but enforcement is weak online	ADR/ODR positioned as the primary enforcement tool for e-commerce disputes

Source: Own research

This benchmark comparison demonstrates that ADR and ODR reform functions as a core accession tool, directly addressing long-standing EU concerns regarding the enforceability of consumer rights in Albania. While current alignment remains limited, the five-year strategy reflects a deliberate shift toward functional convergence rather than formal transposition, particularly in the digital economy. Progress in ADR/ODR implementation will therefore be a key indicator for assessing Albania’s readiness under Chapter 28 and its broader integration into the EU Digital Single Market.

D. Institutional Adaptability and Interoperability

UNCITRAL instruments place particular emphasis on the adaptability of legal systems in response to technological change. While Albania has undertaken legislative reforms aimed at digital modernization, its regulatory framework remains fragmented across related domains, including electronic commerce, electronic identification, data protection, and cybersecurity. This fragmentation limits regulatory coherence and reduces interoperability with both EU and global digital markets³⁴. Despite measurable progress in aligning its consumer protection framework with European Union standards, Albania continues to face structural deficiencies in safeguarding consumers in the digital marketplace. Existing legislation remains largely grounded in traditional models of trade and fails to respond adequately to the realities of online transactions, platform-based commerce, and digital services. Key gaps persist in the regulation of pre-contractual information in digital environments, where the absence of interface-specific standards limits effective consumer transparency. Similarly, Albanian law does not provide a robust framework for intermediary online platforms, leaving consumers insufficiently protected in marketplace transactions. The lack of targeted rules addressing manipulative digital practices, such as dark patterns and artificial ranking, further weakens enforcement capacity³⁵.

These regulatory shortcomings are compounded by the absence of a comprehensive regime for digital content and services, as well as by institutional and cross-border enforcement limitations. As a result, consumer rights in Albania’s digital economy remain formally acknowledged but functionally fragile, underscoring the need for targeted legal adaptation and strengthened enforcement mechanisms to ensure effective consumer protection and legal certainty. Overall, when assessed against UNCITRAL standards, Albania demonstrates partial conceptual alignment but lacks the institutional integration and procedural sophistication necessary to realize the full benefits of a technology-neutral and internationally compatible framework for electronic commerce.

IV. Findings and Discussion

The comparative analysis of Albania’s consumer protection framework considering European Union *acquis* and UNCITRAL standards reveals a pattern of incremental legal alignment accompanied by persistent structural and functional shortcomings. While Albania has transposed several foundational principles of contemporary consumer and digital market regulation, convergence remains partial, particularly in domains requiring procedural modernization, institutional capacity, and digital-ready enforcement mechanisms. The findings of the analysis may be grouped around three interrelated themes: first, the extent of substantive legal alignment with EU and international norms; second, the existence of procedural and institutional deficiencies; and third, the practical implications of these gaps for consumers, market operators, and Albania’s broader trajectory toward EU integration. At the substantive level, Albanian legislation broadly reflects the objectives of EU consumer law, including transparency and protection against unfair commercial practices. However, important gaps persist in areas central to the digital economy, such as pre-contractual information in online

³⁴ European Commission. (2020). Digital contracts rules: Directives (EU) 2019/770 and (EU) 2019/771.

³⁵ European Commission. (2021). Guidance on the interpretation and application of Directive 2005/29/EC on unfair commercial practices.

interfaces, platform accountability, regulation of manipulative digital practices, and the legal treatment of digital content and services.

More significantly, the findings underscore procedural and institutional weaknesses that constrain effective enforcement. Empirical evidence from administrative and judicial practice demonstrates that, in the absence of tailored dispute-resolution tools, consumer disputes are channeled either into fragmented ADR pathways or into judicial proceedings ill-suited to the volume and nature of e-commerce claims. These structural mismatches undermine access to justice and weaken consumer confidence in digital markets. These shortcomings must be viewed against the backdrop of the evolving EU dispute-resolution architecture. The discontinuation of the EU ODR platform reinforces the importance of robust national ADR frameworks capable of operating in digital environments. In this context, Albania’s five-year strategy, particularly its proposal to develop a national ODR system aligned with UNCITRAL standards, represents a potentially transformative step towards functional convergence.

Overall, the findings suggest that Albania’s challenge lies not in the absence of legal norms, but in their practical operationalization. Achieving effective alignment with EU standards will require targeted regulatory adaptation, strengthened institutional capacity, and the development of technologically adequate redress mechanisms. Without such reforms, consumer protection in Albania’s digital marketplace risks remaining formally robust but functionally fragile.

4.1. Substantive Alignment with EU and UNCITRAL Norms

A. Core Principles and General Consumer Rights

The analysis demonstrates that Albania shows a substantial degree of alignment with the foundational principles of consumer protection, notably transparency, informed consent, and protection against unfair commercial practices. These principles are firmly embedded in Law No. 9902/2008 “*On Consumer Protection*” and broadly reflect the normative approach underlying the Consumer Rights Directive and the Unfair Commercial Practices Directive, as well as the general logic of the EU internal market.

Alongside, Albania has incorporated the core UNCITRAL principle of functional equivalence by recognizing the legal validity of electronic documents, communications, and signatures. This alignment provides the essential legal infrastructure for electronic contracting and signals a clear intention to harmonize domestic law with internationally recognized standards for digital transactions. This convergence remains largely formal. While the relevant principles are present in legislative texts, their operationalization in the Albanian digital market remains limited. In particular, advanced forms of consumer protection that have become standard within the EU, such as harmonized guarantees for digital content, enhanced transparency obligations for online platforms, and rules governing personalized pricing and algorithmic decision-making, are not yet fully reflected in national law or practice.

B. Digital Content and Digital Services

One of the most pronounced areas of substantive divergence concerns Albania’s limited incorporation of Directive (EU) 2019/770 on digital content and digital services and Directive (EU) 2019/771 on the sale of goods. These instruments form a cornerstone of the EU’s modernized consumer contract framework, recognizing that digital products and services, such

as applications, cloud-based services, and streaming platforms, require tailored rules on conformity, updates, and remedies. The absence of equivalent provisions in Albanian law generates legal uncertainty for both consumers and traders. Consumers remain insufficiently protected in cases involving defective digital content, security vulnerabilities arising from inadequate updates, or the loss of access to paid digital services. From the perspective of EU approximation, this gap represents a critical area requiring further legislative action to ensure substantive compatibility with EU internal market rules and contemporary digital consumption patterns.

4.2. Procedural and Institutional Weaknesses

A. Dispute Resolution as the Primary Structural Gap

The most significant deficiency in Albania’s alignment with both the EU acquis and UNCITRAL standards lies in dispute resolution. Unlike EU Member States, which are required to ensure comprehensive coverage of certified ADR bodies and access to an integrated ODR platform, Albania lacks a coherent, accessible, and digitally adapted dispute resolution framework. In particular, Albania does not provide:

- a) a national ODR platform for resolving online disputes;
- b) connectivity to the EU Online Dispute Resolution platform;
- c) specialized expertise within complaint-handling institutions for digital commerce disputes.

This gap has structural consequences. Even where substantive consumer rights are formally recognized, their enforceability in practice remains weak. The absence of rapid, low-cost, and digitally accessible redress mechanisms discourages consumer complaints, reduces trader accountability, and undermines confidence in electronic commerce. From the perspective of UNCITRAL, Albania falls short of the procedural standards articulated in the Technical Notes on ODR, particularly regarding accessibility, user-centered design, transparency, and procedural efficiency.

B. Fragmented Institutional Structure

Institutional fragmentation further compounds these weaknesses. The existing framework, comprising the Consumer Protection Commission, the Market Surveillance Inspectorate, and a range of sector-specific regulatory bodies, suffers from limited coordination and insufficient specialization in digital market oversight. The State Inspectorate for Market Surveillance (ISHMT) constitutes a key pillar of Albania’s consumer protection system, exercising primary responsibility for market surveillance and the enforcement of rules governing the safety and conformity of non-food consumer products. In practice, however, ISHMT’s enforcement activity remains largely product-centered and territorially oriented, with a predominant focus on physical inspections and compliance of goods placed on the traditional market. Empirical data indicate that most inspections and administrative measures concern product safety rather than market behavior’s Consumer Protection Commission (CPC) is the competent authority responsible for enforcing consumer protection legislation. Operational since May 2009, it functions as an administrative decision-making body empowered to adopt measures in cases of legislative infringements. The Commission examines and decides on consumer protection cases based on complaints or other substantiated information, in cooperation with relevant

supervisory bodies. Its mission is to safeguard consumers’ economic interests across key areas such as unfair practices, contracts, goods and services, including distance and regulated services. With powers to order corrective measures, impose fines and grant compensation, the Commission primarily serves a regulatory and preventative role in the public interest.

Empirical evidence from the GDADR indicates that Albania has formally progressed beyond a purely nominal ADR framework by establishing an operational dispute-resolution authority. Nevertheless, the continued inability to effectively resolve disputes involving non-responsive traders and opaque online platforms reveals structural deficiencies in the practical enforceability of consumer rights in digital markets. This disconnect underscores that formal legislative approximation has not yet been translated into functional equivalence, as required under Chapter 28 of the EU accession framework.

These structural constraints manifest in uneven enforcement across sectors, limited oversight of online platforms and digital marketplaces, and weak capacity to address algorithm-driven risks. Complaint-handling mechanisms remain slow and insufficiently adapted to the speed and complexity of online commerce. The absence of a specialized authority or dedicated unit focused on digital market regulation stands in contrast to developments in many EU Member States, where national authorities have been strengthened to address platform-based business models and technologically complex market practices.

4.3. Alignment with Technological and International Standards

A. Technological Neutrality and Electronic Signatures

Albania’s Law No. 107/2015 “*On Electronic Identification and Trusted Services*” reflects core elements of the EU’s eIDAS Regulation and formally recognizes electronic signatures and trust services as legally valid. From a normative perspective, this framework aligns with both EU requirements and UNCITRAL’s emphasis on technology-neutral regulation. In practice, nonetheless, the implementation of trust services remains limited. Electronic signatures are not yet widely used in commercial transactions, and cross-border interoperability is not fully ensured. These constraints are largely attributable to underdeveloped technical infrastructure, limited market uptake, and insufficient integration of trust services into consumer-facing digital platforms. As a result, UNCITRAL’s principle of technological neutrality is only partially realized, as legal recognition alone has not translated into effective and widespread use within the digital economy.

B. Automated Contracting and Platform Liability

Albania’s current legal framework provides limited guidance on automated contract formation, algorithmic decision-making, and platform-mediated transactions. This contrasts with UNCITRAL’s recognition of automated message systems as valid contractual mechanisms and diverges even more sharply from the increasingly detailed regulatory approach adopted within the EU, particularly under the Digital Services Act. The absence of platform-specific obligations, such as transparency regarding ranking criteria, trader traceability, and content moderation responsibilities, weakens consumer protection and creates regulatory uncertainty for market actors. This gap not only exposes consumers to heightened risks but also constrains Albania’s ability to integrate effectively into emerging EU digital market structures shaped by platform accountability and algorithmic governance.

4.4. Practical Implications for the Albanian Digital Market

The combined substantive, procedural, and institutional shortcomings identified throughout the analysis have tangible consequences for consumers, businesses, and policymakers.

A. Implications for Consumers

For consumers, the current regulatory environment contributes to reduced confidence in online transactions. Limited remedies in cases of fraud, non-delivery, or non-conformity of digital content, combined with the absence of efficient ADR and ODR mechanisms, significantly weaken practical consumer protection. These barriers discourage the use of online markets and undermine trust in electronic commerce as a reliable avenue for consumption.

B. Implications for Businesses and Digital Platforms

From the perspective of businesses and digital platforms, persistent legal uncertainty, particularly in cross-border operations, poses a challenge to predictable commercial activity. The lack of clearly articulated intermediary liability rules and effective digital market oversight may also distort competition, creating uneven playing fields that disadvantage compliant operators while allowing non-compliant practices to persist.

C. Implications for Policymakers and EU Integration

For policymakers, the findings highlight a structural misalignment between Albania’s legal framework and the evolving EU digital acquis. While alignment with earlier EU directives is relatively advanced, gaps remain with respect to newer instruments governing digital markets, platform regulation, and dispute resolution. In addition, although Albania demonstrates conceptual convergence with UNCITRAL principles, limited practical implementation reduces the country’s competitiveness in international e-commerce and slows progress toward deeper integration into the EU Digital Single Market.

4.5. Empirical Evidence from Administrative and Judicial Practice in Albania

A. Judicial Practice in Commercial and Consumer-Related Disputes: Evidence from the Tirana Court of First Instance (2024–2025)

Judicial data concerning commercial disputes before the Court of General Jurisdiction of First Instance in Tirana, as reflected in the court’s Annual Work Analysis 2025, provide further empirical insight into the functioning of dispute resolution mechanisms relevant to consumer and e-commerce enforcement in Albania. Although these statistics concern commercial litigation more broadly, they are highly pertinent to the present analysis given the overlap between commercial disputes, consumer claims, and disputes arising from online and distance transactions. At the beginning of 2024, the commercial section of the Tirana court registered 683 pending cases. By 31 December 2024, the number of pending cases had fallen to 578, while 254 new cases were filed during the year, resulting in a total caseload of 832 cases. In total, 359 cases were concluded, leaving 473 cases still unresolved at the end of the year. Of the cases completed, 139 were decided in favour of the claimant, 62 were dismissed, 112 were discontinued, and 42 were resolved through other procedural outcomes. These figures illustrate significant judicial activity but also reveal the persistence of a substantial backlog within the

commercial jurisdiction. A comparable pattern emerged in 2025. As of 1 January 2025, the commercial section recorded 631 pending cases. During the year, 238 new cases were registered, while 355 cases were adjudicated. By 31 December 2025, 514 cases remained pending, resulting in a total caseload of 752 cases, of which 397 were carried forward into 2026. This sustained accumulation of unresolved cases confirms that judicial proceedings represent a time-intensive and resource-heavy avenue for resolving commercial and consumer-related disputes.

B. Administrative Practice: Consumer Complaints before the Consumer Protection Commission (2021–2025)

When considered in parallel with administrative data from the Consumer Protection Commission (CPC), these judicial findings highlight a broader structural issue in consumer redress. Between 2021 and 2024, the CPC handled 246 consumer complaints, while in 2025 alone it examined 81 complaints, the majority of which related to non-conformity of goods, unfair commercial practices, distance and online contracts, electronic communications services, and flight cancellations. Notably, only 12 cases in 2025 underwent full administrative review by the Commission, whereas 69 complaints were referred to ADR bodies or other competent authorities, a significant proportion of which remained unresolved or under review by year end. Taken together, the data from the CPC and the Annual Work Analysis 2025 of the Tirana court demonstrate that, in the absence of a structured and accessible online dispute resolution (ODR) system, consumer and e-commerce disputes are channelled either into lengthy judicial proceedings or into fragmented ADR pathways with uncertain and delayed outcomes. The persistent judicial backlog, combined with the limited resolution rate of administratively referred cases, underscores the procedural disproportionality of litigation for the low-value, high-volume disputes typical of electronic commerce.

C. Alternative Dispute Resolution (ADR): Consumer Complaints before the Directorate General for Alternative Dispute Resolution (February–December 2025)

Empirical data from DGADR’s administrative practice shed light on the functioning of ADR mechanisms in consumer disputes. Between February and December 2025, DPZAM handled 33 consumer complaints, primarily concerning unfair commercial practices (notably lack of information and transparency), non-conformity of goods and product guarantees, distance and online purchases, and non-compliance between electronic communications services and contractual terms. All complaints submitted during this period were accepted for review, indicating a high level of procedural accessibility³⁶.

During the reporting period, 47.8% of complaints were resolved, with an average resolution time of 10 working days. Outcomes favourable to consumers accounted for 47.8% of resolved cases and were accepted by the relevant traders. Only 1.4% of cases required formal decision-making by the competent Commission, suggesting that most disputes were addressed through facilitated or consensual solutions.

However, structural limitations persist. Approximately 20.3% of complaints remained pending or under review, mainly due to traders’ failure to respond within statutory deadlines. A further 12.1% of cases concerned online platforms lacking sufficient administrative identification data,

³⁶ Directorate General for Alternative Dispute Resolution (DGADR). (2025). Annual statistical data on consumer complaints (February–December 2025). Tirana.

preventing effective institutional follow-up. These unresolved cases were disproportionately linked to online transactions, highlighting systemic enforcement gaps. Overall, the evidence confirms that while DGADR meets the formal requirements of Directive 2013/11/EU, the effectiveness of ADR remains constrained in the absence of robust ODR tools and stronger digital enforcement mechanisms.

From a systemic perspective, this empirical evidence reinforces the conclusion that courts and administrative complaint-handling mechanisms currently function as imperfect substitutes for effective ADR and ODR tools. The continued prevalence of unresolved disputes demonstrates that the absence of digital, user-centred dispute resolution mechanisms have tangible consequences for access to justice, legal certainty, and consumer confidence. Accordingly, the strengthening and digitalisation of ADR and ODR frameworks emerge not merely as matters of legislative alignment with EU standards, but as practical necessities for the effective enforcement of consumer rights in Albania’s evolving digital marketplace.

4.6. Overall Interpretation

From an overall assessment, the findings indicate that Albania is progressing toward greater alignment with European Union and international norms governing digital markets. This trajectory reflects a clear policy orientation toward harmonization and modernization. However, substantive convergence has not yet been achieved in several critical areas, notably dispute resolution mechanisms, platform accountability, and the regulation of digital content and services.

Consumer dispute resolution, platform accountability, and the practical enforceability of rights in online transactions continue to represent structural weaknesses. While the formal legal and institutional framework broadly reflects EU and UNCITRAL standards, the effectiveness of consumer protection in digital markets is still constrained at the operational level.

The empirical evidence examined, from both administrative practice and judicial proceedings, underscores a recurring pattern: in the absence of dedicated and technologically adapted redress mechanisms, consumer disputes in digital markets are addressed either through overloaded judicial processes or through fragmented administrative and ADR pathways. These mechanisms, while functional, are not well suited to the characteristics of e-commerce disputes, which typically require rapid, low-cost, and user-centred solutions. As a result, consumer rights risk remaining formally recognized yet only weakly realized in practice. The analysis therefore demonstrates that legislative approximation alone is insufficient to ensure effective alignment with EU standards. Meaningful convergence requires complementary structural reforms, including the strengthening of institutional capacity, the development of digital-ready enforcement and redress tools, and the integration of accessible, consumer-facing digital infrastructure. Without such measures, formal compliance risks remain largely theoretical, with limited impact on consumer trust, legal certainty, and market confidence. In this context, the reform of ADR and ODR mechanisms emerges not as a technical adjustment but as a central element of Albania’s broader digital transformation and EU accession process. The overall findings support the conclusion that advancing from normative alignment to functional effectiveness will be decisive for ensuring that consumer protection in Albania’s digital marketplace is both credible and sustainable.

V. Conclusions and Recommendations

5.1. Conclusions

This study has examined the Albanian legal framework governing electronic commerce and consumer protection through a comparative analysis with the European Union *acquis* and the international standards developed by UNCITRAL. The findings indicate that Albania has undertaken meaningful legislative reforms aimed at aligning domestic law with contemporary digital market principles. Nevertheless, this alignment remains partial, uneven, and incomplete in areas that are essential for the effective functioning of a trustworthy and competitive digital economy.

Empirical evidence from DGADR confirms that Albania has progressed beyond a nominal ADR framework by establishing a functioning dispute-resolution authority. Nonetheless, the persistent inability to resolve disputes involving non-responsive traders and opaque online platforms demonstrates that consumer rights in digital markets remain weakly enforceable in practice. This confirms that formal approximation has not yet resulted in functional equivalence, as required under Chapter 28 of the EU accession framework.

A. Substantive Alignment: Present but Limited

Albania demonstrates alignment with both EU and UNCITRAL frameworks in relation to several core consumer protection principles, including transparency, informed consent, the functional equivalence of electronic communications, and the legal recognition of electronic contracts and signatures. A degree of textual harmonization with foundational EU consumer law directives has therefore been achieved.

Nonetheless, this alignment does not extend to the most recent and advanced components of the EU digital consumer *acquis*. The absence of comprehensive transposition of the Digital Content and Digital Services Directive and the Sale of Goods Directive leaves significant regulatory gaps. Key areas, such as consumer rights relating to digital content, obligations concerning updates, data-driven and personalized pricing, and platform transparency, remain insufficiently regulated under Albanian law.

B. Dispute Resolution: The Most Significant Structural Deficit

The analysis identifies the absence of a comprehensive national system for alternative and online dispute resolution as the most substantial weakness in Albania’s digital consumer protection framework. Without accessible, efficient, and digitally adapted dispute resolution mechanisms, consumer rights remain largely unenforceable in practice. This shortcoming stands in marked contrast to the EU’s ADR and ODR regime and to UNCITRAL’s emphasis on accessibility, procedural fairness, and technological adaptability in consumer dispute resolution.

C. Institutional and Enforcement Constraints

Albania’s enforcement authorities currently lack the institutional capacity, technical resources, and specialized expertise required to regulate complex digital markets effectively. Online platforms, algorithm-driven business models, and cross-border digital services operate with limited oversight, reducing the practical impact of existing legal protections. As a result, legislative safeguards risk remaining largely theoretical rather than operational.

D. Limited Interoperability with International Digital Markets

Although Albanian legislation incorporates core principles relating to electronic signatures, data integrity, and functional equivalence, the supporting operational environment remains underdeveloped. Gaps in trust service infrastructure, cross-border recognition mechanisms, and safeguards for automated digital contracting limit Albania’s ability to achieve full interoperability with both the EU Digital Single Market and global e-commerce ecosystems.

Overall Conclusion

Viewed in their entirety, the findings confirm that Albania is on a clear trajectory toward the modernization of its legal framework for electronic commerce and consumer protection. Nevertheless, significant gaps persist in substantive regulation, enforcement capacity, digital infrastructure, and procedural mechanisms. Achieving full alignment with EU and UNCITRAL standards will require not only further legislative harmonization, but also sustained institutional strengthening, the digitalization of consumer redress mechanisms, and systemic reforms capable of bridging the gap between legal principles and their practical implementation.

5.2. Recommendations

To advance Albania’s alignment with European Union law and international digital market standards, this study proposes a set of complementary legislative, institutional, and technological reforms. These recommendations aim to strengthen consumer protection, enhance legal certainty, and support Albania’s integration into the European Digital Single Market.

A. Legislative Reforms

1. Transposition of Modern EU Consumer Law Instruments

Priority should be given to the incorporation of the EU’s updated consumer contract regime into Albanian law. Albania should transpose Directive (EU) 2019/770 on digital content and digital services, establishing clear rules on conformity, updates, and remedies for digital products and harmonize domestic legislation with Directive (EU) 2019/771 on the sale of goods, including provisions on digital elements embedded in goods and remedies for lack of conformity. These reforms would address existing legal gaps and ensure that consumer rights extend effectively to digital goods and services, in line with contemporary EU standards.

2. Adoption of Platform-Specific Transparency Obligations

Albania should introduce targeted rules governing online platforms and digital intermediaries, drawing inspiration from the Digital Services Act. In particular, national legislation should provide for transparency obligations relating to ranking criteria, sponsored content, and personalized pricing practices, trader traceability requirements to ensure accountability in online marketplaces and baseline principles of algorithmic transparency where automated decision-making affects consumer rights. Such measures would enhance consumer trust and reduce information asymmetries in platform-based markets.

3. Clarification of Intermediary Liability Regimes

Greater legal clarity is required regarding the rights and obligations of online intermediaries. Albanian law should further specify liability exemptions and due-diligence obligations applicable to hosting services, platforms, and other information society service providers. This clarification should be consistent with both EU law and UNCITRAL principles, ensuring legal certainty while avoiding excessive regulatory burdens that could stifle innovation.

4. Strengthening the Framework on Electronic Signatures and Trust Services

Although electronic signatures are legally recognized, the existing framework should be reinforced to improve practical effectiveness. Reforms should aim to enhance the reliability and legal certainty of trust services, ensure cross-border recognition and interoperability, in line with EU and international standards and promote wider adoption of electronic signatures in consumer-facing and commercial transactions.

Strengthening this framework is essential for secure digital contracting and international interoperability.

B. Establishment of a National ADR and ODR Framework

A central priority for strengthening consumer protection in Albania should be the creation of a comprehensive system for alternative and online dispute resolution tailored to the realities of digital commerce. Second, the development of a national ODR platform should be prioritized. Such a platform should be aligned with the UNCITRAL Technical Notes on Online Dispute. to ensure that dispute resolution mechanisms are designed and implemented in a manner that guarantees user-friendly and intuitive digital interfaces, multilingual accessibility, particularly in the context of cross-border disputes-transparent, impartial and fair procedural rules, as well as technical compatibility with the EU ODR platform, thereby enabling future interoperability.

Building on GDADR’s operational experience, Albania should prioritise the transition from institution-based ADR mechanisms to a digitally integrated, mandatory ODR system. Particular emphasis should be placed on trader participation, platform traceability, and the integration of ADR/ODR tools into e-government interfaces such as e-Albania, ensuring compliance with UNCITRAL Technical Notes and EU consumer acquis.

Third, meaningful effectiveness requires mandatory participation by traders in ADR and ODR procedures, particularly for online sellers and platform operators engaged in B2C transactions. Finally, ODR mechanisms should be integrated into existing digital public service infrastructures, notably the e-Albania platform, to maximize accessibility, visibility, and consumer uptake.

C. Institutional Strengthening and Capacity Building

Legal reforms must be supported by targeted institutional development to ensure effective enforcement in digital markets.

A first step would be the creation of a specialized digital market monitoring unit, either within the Consumer Protection Commission or as a dedicated independent authority, with a mandate focused on online platforms and digital commerce.

In parallel, the digital and technical capacity of enforcement authorities should be strengthened. This includes targeted training for inspectors, enforcement staff, and complaint-handling personnel in areas such as digital contracting and electronic commerce models, platform economy practices and intermediary liability, algorithmic transparency and automated decision-making, cross-border consumer protection and cooperation mechanisms.

In addition, inter-agency coordination should be enhanced, particularly between consumer protection authorities, data protection bodies, cybersecurity institutions, and telecommunications regulators. Finally, the introduction of systematic market monitoring and data collection mechanisms is essential to support evidence-based policymaking and regulatory responsiveness.

D. Technological and Infrastructure Development

Effective consumer protection in digital markets also depends on adequate technological infrastructure.

Albania should actively expand its trust services ecosystem, including the development and certification of electronic seals, digital identity solutions, and secure authentication tools. Greater emphasis should be placed on promoting the widespread use of electronic signatures, particularly in B2C transactions and online contracting environments.

Alongside, digital literacy initiatives should be strengthened to enable consumers to better understand their rights, identify online risks, and use digital complaint and redress mechanisms effectively. Such initiatives are essential to ensuring that legal protections are meaningful in practice.

Finally, Albania should develop interoperability standards aligned with the EU eIDAS framework and relevant international norms, facilitating cross-border digital transactions and integration into European and global e-commerce markets.

E. Policy and Strategic Integration

To ensure sustainability, reforms in consumer protection should be embedded within Albania's broader digital and economic policy framework.

Consumer protection objectives should be explicitly integrated into national digital transformation strategies, ensuring coherence between legislative reforms, technological development, and economic growth goals. Simultaneously, Albania should proactively prepare for future obligations arising from EU digital market regulation, including potential approximation with the Digital Markets Act and subsequent reforms of EU platform and consumer law.

Ultimately, effective reform requires inclusive governance. Albania should institutionalize stakeholder consultation processes involving industry actors, consumer organizations, civil society, and professional associations, thereby ensuring that regulatory measures are both practicable and broadly supported.

5.3. Final Remarks

Strengthening Albania’s regulatory framework for the digital market is essential not only to ensure effective consumer protection, but also to enhance market competitiveness, foster innovation, and support the country’s broader objective of European Union integration. As digital commerce continues to reshape economic relations, the absence of a coherent, enforceable, and future-oriented regulatory environment risks limiting both consumer trust and market development.

The recommendations set out in this chapter offer a strategic and integrated roadmap for advancing Albania’s legal, institutional, and technological preparedness. Their implementation would contribute to the establishment of a modern, interoperable, and trustworthy digital economy, aligned with European and international standards, and capable of supporting sustainable growth within the evolving landscape of the EU Digital Single Market.

REFERENCES

- Assembly of the Republic of Albania. (2008). Law No. 9902, “On consumer protection”, as amended. Official Gazette of the Republic of Albania.
- Assembly of the Republic of Albania. (2014). Law No. 10/2014 “On electronic commerce”. Official Gazette of the Republic of Albania.
- Assembly of the Republic of Albania. (2015). Law No. 107/2015 “On electronic identification and trusted services”. Official Gazette of the Republic of Albania.
- Council of the European Communities. (1975). Resolution on a preliminary programme of the European Economic Community for a consumer protection and information policy. Official Journal of the European Communities, C 92, 1–2.
- Council of the European Communities. (1993). Directive 93/13/EEC on unfair terms in consumer contracts. Official Journal of the European Communities, L 95, 29–34.
- Council of Ministers of the Republic of Albania. (2020). Decision No. 1089, dated 24 December 2020, on the establishment and functioning of the Directorate General for Alternative Dispute Resolution. Official Gazette.
- Directorate General for Alternative Dispute Resolution (DGADR). (2025). Annual statistical data on consumer complaints (February–December 2025). Tirana.
- European Commission. (2020). Digital contracts rules: Directives (EU) 2019/770 and (EU) 2019/771. Publications Office of the European Union.
- European Commission. (2021). Guidance on the interpretation and application of Directive 2005/29/EC on unfair commercial practices. Official Journal of the European Union, C 526, 1–129.
- European Commission. (2023). Consumer protection in the digital age. Publications Office of the European Union.
- European Parliament and Council. (2000). Directive 2000/31/EC on electronic commerce. Official Journal of the European Communities, L 178, 1–16.
- European Parliament and Council. (2005). Directive 2005/29/EC concerning unfair business-to-consumer commercial practices in the internal market. Official Journal of the European Union, L 149, 22–39.
- European Parliament and Council. (2011). Directive 2011/83/EU on consumer rights. Official Journal of the European Union, L 304, 64–88.
- European Parliament and Council. (2013). Directive 2013/11/EU on alternative dispute resolution for consumer disputes. Official Journal of the European Union, L 165, 63–79.
- European Parliament and Council. (2013). Regulation (EU) No 524/2013 on online dispute resolution for consumer disputes. Official Journal of the European Union, L 165, 1–12.
- European Parliament and Council. (2016). Regulation (EU) 2016/679 (General Data Protection Regulation). Official Journal of the European Union, L 119, 1–88.
- European Parliament and Council. (2017). Regulation (EU) 2017/2394 on cooperation between national authorities responsible for the enforcement of consumer protection laws. Official Journal of the European Union, L 345, 1–26.
- European Parliament and Council. (2019). Directive (EU) 2019/770 on certain aspects concerning contracts for the supply of digital content and digital services. Official Journal of the European Union, L 136, 1–27.
- European Parliament and Council. (2019). Directive (EU) 2019/771 on certain aspects concerning contracts for the sale of goods. Official Journal of the European Union, L 136, 28–50.

- European Parliament and Council. (2022). Regulation (EU) 2022/2065 on a Single Market for Digital Services (Digital Services Act). Official Journal of the European Union, L 277, 1–102.
- European Union. (2009). Consolidated version of the Treaty on the Functioning of the European Union. Official Journal of the European Union, C 202, 47–200.
- Kennedy, J. F. (1962). Special message to the Congress on protecting consumer interests. The White House.
- United Nations. (2015). United Nations guidelines for consumer protection. United Nations.
- UNCITRAL. (1996). Model Law on Electronic Commerce. United Nations.
- UNCITRAL. (2001). Model Law on Electronic Signatures. United Nations.
- UNCITRAL. (2016). Technical Notes on Online Dispute Resolution. United Nations.

MANAGERIAL COMPETENCIES TOWARDS SUSTAINABLE AND CIRCULAR TRANSFORMATION: A STRUCTURED REVIEW AND INTEGRATIVE FRAMEWORK

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Abstract

Managers acting in sustainability-driven and circular business contexts require competencies that extend beyond standard administrative and technical skills. Although sustainability competency frameworks have identified key dimensions such as systems thinking, anticipatory competence and normative reasoning, much of this scholarship has evolved within educational settings. In parallel, circular economy research and managerial capability studies highlight innovation, leadership and strategic alignment, however these streams remain insufficiently integrated. This study develops an integrated managerial competency framework for sustainable and circular business.

Drawing on a structured literature review of 39 peer-reviewed journal papers published between 2005 and 2025, the study synthesises recurring competency dimensions across sustainability science, circular economy research and managerial scholarship. The analysis identifies six interconnected competency clusters: systems integration; strategic and future-oriented competence; normative and ethical governance; stakeholder and collaborative competence; innovation and transformative competence; and implementation and operationalisation competence.

The findings indicate that sustainability and circular transformation depend on coordinated managerial competencies covering systemic awareness, long-term strategic orientation, ethical governance, ecosystem collaboration, business model innovation and institutionalised execution mechanisms. By consolidating previously fragmented research streams, the proposed framework conceptualises sustainability competencies as a dynamic and interdependent managerial capability architecture. The study advances theoretical integration and offers practical assistance for leadership development, strategic planning and organisational capability evaluation in sustainability-oriented contexts.

Keywords: Managerial Competencies, Sustainable Management, Circular Economy, Organisational Transformation, Sustainability Leadership

Introduction

Sustainability and circular economy transitions are increasingly recognised as central challenges for contemporary organisations. Businesses are expected to reduce environmental

impacts, redesign business models, integrate circular resource flows and align with evolving environmental, social and governance (ESG) standards. These demands extend beyond technical innovation and require substantial managerial capability development. Research across sustainability science and management studies highlights the importance of competencies in enabling effective sustainability transitions (Redman & Wiek, 2021; Wiek et al., 2011).

Sustainability competency frameworks have provided influential conceptual models identifying systems thinking, anticipatory competence, normative reasoning, strategic competence and interpersonal competence as essential dimensions for addressing complex socio-ecological challenges (Wiek et al., 2011). Subsequent research has refined these models, incorporating implementation-oriented dimensions and improving measurement approaches (Annelin & Boström, 2023; Cebrián et al., 2019). However, much of this scholarship has developed within educational contexts, focusing primarily on curriculum design and student learning outcomes rather than organisational governance and managerial execution.

In parallel, circular economy research increasingly emphasises organisational capabilities required to enable closed-loop systems, resource efficiency and regenerative business models (De los Rios & Charnley, 2017; Sumter et al., 2020). Empirical studies demonstrate that leadership and managerial capabilities influence circular business model adoption and sustainability performance (Nath et al., 2025; Sanchez et al., 2025). Industry 4.0 research further connects digital transformation competencies with sustainability objectives (Shet & Pereira, 2021).

Despite these developments, the literature remains conceptually fragmented. Sustainability competency theory, managerial capability research and circular economy scholarship largely evolve in parallel, with limited theoretical integration. Sustainability frameworks provide normative and analytical depth but limited managerial operationalisation. Managerial competency models emphasise strategy and innovation yet do not consistently embed sustainability and circular imperatives as structural dimensions. Circular economy research identifies emerging capability needs but rarely consolidates them within a comprehensive managerial competency architecture.

This fragmentation limits clarity regarding the competencies managers require to guide sustainable and circular transformation in complex organisational environments. While recurring competency themes appear across research streams, an integrated framework that consolidates these dimensions within a coherent managerial architecture remains underdeveloped.

Accordingly, this study develops an integrated managerial competency framework for sustainable and circular business. Drawing on a structured literature review of 39 peer-reviewed journal articles published between 2005 and 2025, the study synthesises recurring competency dimensions and conceptualises them as interdependent managerial capabilities embedded within strategy, governance, innovation and operational systems.

The paper proceeds as follows. Section 2 outlines the review methodology. Section 3 critically examines existing sustainability, managerial and circular competency frameworks. Section 4 presents the integrated conceptual framework, followed by theoretical contributions, practical implications, limitations and concluding remarks.

By integrating previously disconnected research streams, this study contributes to sustainability management scholarship by clarifying the managerial capabilities required to orchestrate sustainable and circular transformation in organisational contexts.

Methodology

This study adopts a structured qualitative literature review to examine managerial competencies within sustainability and circular business contexts. Structured reviews are intended to enhance transparency by applying clearly defined search and selection procedures (Tranfield et al., 2003). The objective of the review was not statistical aggregation but to identify recurring competency constructs, conceptual overlaps and theoretical gaps across sustainability competency frameworks, circular economy research and managerial capability studies. A qualitative thematic synthesis approach was therefore employed to support conceptual framework development.

The review focused on peer-reviewed journal articles published between 2005 and 2025. The search was conducted between September and December 2025 using Google Scholar as the primary database due to its broad interdisciplinary coverage across management, sustainability, and circular economy research. To ensure comprehensive coverage beyond initial keyword results, backward citation screening of reference lists from seminal works (Wiek et al., 2011; Teece, 2007; De los Rios & Charnley, 2017) identified additional relevant studies. Search terms combined keywords such as “managerial competencies” and sustainability, “circular economy” and managerial capabilities, “sustainable leadership” and competencies, and “green human resource management” and competencies. Search terms were refined iteratively to improve relevance, and backward reference screening of influential articles was undertaken to identify additional relevant studies.

To ensure conceptual coherence, studies were included if they explicitly addressed managerial, leadership or organisational competencies and demonstrated clear relevance to sustainability, ESG or circular economy contexts. Conference proceedings, theses and other non-peer-reviewed publications were excluded.

The initial search identified 52 potentially relevant articles. Following title and abstract screening conducted by the author, 14 papers were excluded due to insufficient integration of sustainability and managerial competency constructs. The final sample of 39 peer-reviewed journal articles comprised 14 studies primarily focused on sustainability competencies and education, 17 on managerial competencies and organisational capabilities, and 8 on circular economy and dynamic capabilities (see Appendix A for an overview grouped by the three primary research streams).

The selected studies were analysed through qualitative thematic synthesis in three stages: extraction of explicitly identified competencies, grouping of conceptually similar constructs into broader categories, and examination of recurring patterns across research streams. This analytical process informed the development of the integrated framework presented in the following section.

Critical Review of Existing Frameworks

Research on sustainability-related competencies has expanded significantly over the past two decades (Redman & Wiek, 2021; Wiek et al., 2011). However, this expansion has occurred across largely parallel streams, sustainability competency theory, managerial competency models and circular economy capability research, without sufficient conceptual integration. Although each stream contributes valuable insights, limited cross-fertilisation has resulted in fragmentation that constrains theoretical clarity. A critical examination of these traditions reveals structural disconnects that justify the need for an integrated managerial competency framework.

Sustainability Competency Frameworks

Sustainability competency theory provides one of the most coherent conceptual foundations for addressing complex socio-ecological challenges. Wiek et al. (2011) proposed five core competencies, systems thinking, anticipatory competence, normative competence, strategic competence and interpersonal competence, intended to enable sustainability-oriented problem-solving. Redman and Wiek (2021) subsequently expanded this framework by incorporating implementation and intrapersonal dimensions, thereby emphasising action-oriented and reflective capacities within sustainability transitions.

These frameworks represent a significant advance in articulating the cognitive and normative dimensions of sustainability. Systems thinking enables the analysis of interdependencies across environmental, social and economic domains (Wiek et al., 2011), while normative competence embeds ethical reasoning and intergenerational responsibility within decision-making processes. Empirical studies have further refined assessment instruments, demonstrating increasing methodological rigour in competency measurement (Annelin & Boström, 2023; Cebrián et al., 2019).

Yet, despite their conceptual sophistication, sustainability competency frameworks remain predominantly anchored in educational contexts. Much of the empirical work centres on curriculum design, pedagogical interventions and student assessment (Cebrián et al., 2019; Redman et al., 2021). Although more recent contributions have attempted to link sustainability competencies with entrepreneurial processes (Foucrier & Wiek, 2019), these efforts remain largely situated within entrepreneurship education and venture development contexts. Consequently, the application of these competencies within organisational governance structures, business model redesign and performance systems has received comparatively less attention. Sustainability competency research therefore provides a strong normative and analytical vocabulary, but limited specification of how such competencies operate within managerial practice.

Managerial Competency Models

Managerial competency research has traditionally concentrated on leadership effectiveness, innovation capacity and organisational performance. Empirical classifications consistently identify competencies related to strategic thinking, decision-making, communication, innovation management and organisational learning (Freitas & Odelius, 2018; Lara & Salas-

Vallina, 2017). These models offer structured accounts of managerial capability in competitive and dynamic environments.

Interpretivist approaches further emphasise that sustainability-oriented managerial competencies develop through reflexive engagement with organisational paradoxes and stakeholder tensions rather than through predefined functional skill lists (Bidart Carneiro de Novaes & Brunstein, 2013).

Recent research extends this perspective to sustainability-related contexts. Managerial competence has been associated with organisational resilience and continuity (Kabii & Kinyua, 2023; Zheng & Dong, 2025). Quantitative studies further demonstrate that managerial competence and entrepreneurial orientation significantly influence organisational performance, with innovation acting as a mediating mechanism (Fahmi & Farida, 2025). Sustainable innovation studies highlight the role of managerial routines in embedding environmental considerations within product development (Fericotti et al., 2016). Industry 4.0 research similarly links digital transformation competencies with sustainable development objectives (Ihimbazwe Ndanguza, 2025; Shet & Pereira, 2021). Exploratory research has also proposed competency models specifically linking managerial capabilities to sustainable development project outcomes. For instance, Hassan (2020) identifies communication, leadership, development orientation, achievement orientation, motivation, teamwork, innovation and decision-making as critical competencies directly associated with the economic, social and environmental pillars of sustainability.

However, in many traditional frameworks, sustainability is treated as a contextual factor rather than a structural organising principle of competency design. While innovation and strategic alignment are extensively theorised, environmental systems awareness, circular value-chain integration and ESG governance are not consistently embedded within core managerial competency architectures. This separation sustains a conceptual divide between sustainability imperatives and mainstream management models.

Circular Economy Capability Research

Circular economy scholarship increasingly recognises that regenerative business models depend upon new organisational capabilities. De los Rios and Charnley (2017) emphasised lifecycle thinking and stakeholder coordination as central to circular transitions, while Sumter et al. (2020, 2021) identified and empirically validated a structured set of circular design competencies, including systems thinking, recovery-oriented design, business model integration and stakeholder collaboration. Although these contributions provide important clarification regarding circular design capabilities, they remain primarily situated within product and design practice contexts rather than embedded within a comprehensive managerial governance architecture.

Empirical research reinforces the managerial dimension of circular transformation. Nath et al. (2025) propose that sustainable leadership plays a critical role in enabling circular economy practices, while Sanchez et al. (2025) provide empirical evidence that leadership capability supports the adoption of circular and digital business models. Studies connecting circular transformation with Industry 4.0 similarly highlight the need for integrative managerial capability development (Ihimbazwe Ndanguza, 2025; Shet & Pereira, 2021).

Despite these contributions, circular economy capability research frequently addresses competencies in fragmented or sector-specific terms. Technical design expertise, innovation routines and stakeholder collaboration are often examined separately and rarely consolidated within a comprehensive managerial competency architecture. Moreover, circular capability discussions are not systematically positioned in dialogue with established sustainability competency frameworks or traditional managerial models. This limited integration restricts theoretical accumulation across streams.

Conceptual Fragmentation and the Need for Integration

Across these streams, fragmentation persists. Sustainability competency frameworks provide conceptual depth but remain largely education oriented. Managerial competency models offer operational clarity yet do not consistently embed sustainability and circular imperatives as structural drivers of capability design. Circular economy research foregrounds transformation and coordination requirements but lacks consolidation within a broader managerial architecture. Circular economy has increasingly been positioned as a regenerative economic model contributing to broader sustainability objectives rather than replacing them (Geissdoerfer et al., 2017). Despite conceptual recognition of this relationship, systematic integration within managerial competency architectures remains underdeveloped. Recent sectoral reviews further link circular transitions with workforce skill development and education for sustainable development, particularly in technologically intensive industries (Chigbu, 2024). yet such contributions remain largely context-specific and do not articulate how sustainability-oriented skills integrate into a comprehensive managerial competency framework.

Recurring dimensions, including systems integration, strategic orientation, governance competence, collaboration, innovation and implementation, appear consistently across the literature. Circular economy scholarship has articulated structured design-oriented competency sets, identifying capabilities such as systems thinking, recovery-oriented design, business model integration and stakeholder collaboration within product–service development contexts (Sumter et al., 2021). Exploratory models have also proposed sustainability-oriented managerial competency configurations linking communication, leadership, innovation and decision-making directly to sustainable development outcomes (Hassan, 2020). Yet these dimensions remain dispersed and theoretically disconnected rather than synthesised within a unified managerial framework. The field therefore exhibits recurring conceptual overlap without systematic integration, limiting clarity regarding how managerial competencies collectively enable sustainable and circular transformation.

This fragmentation also reflects limited engagement with broader theories of organisational adaptation. Dynamic capabilities theory emphasises sensing, seizing and transforming capacities in environments characterised by rapid change (Teece, 2007), yet the sustainability-oriented content of these capacities remains under-articulated. Without clearer integration of sustainability and circular imperatives into managerial competency architectures, theoretical development remains fragmented.

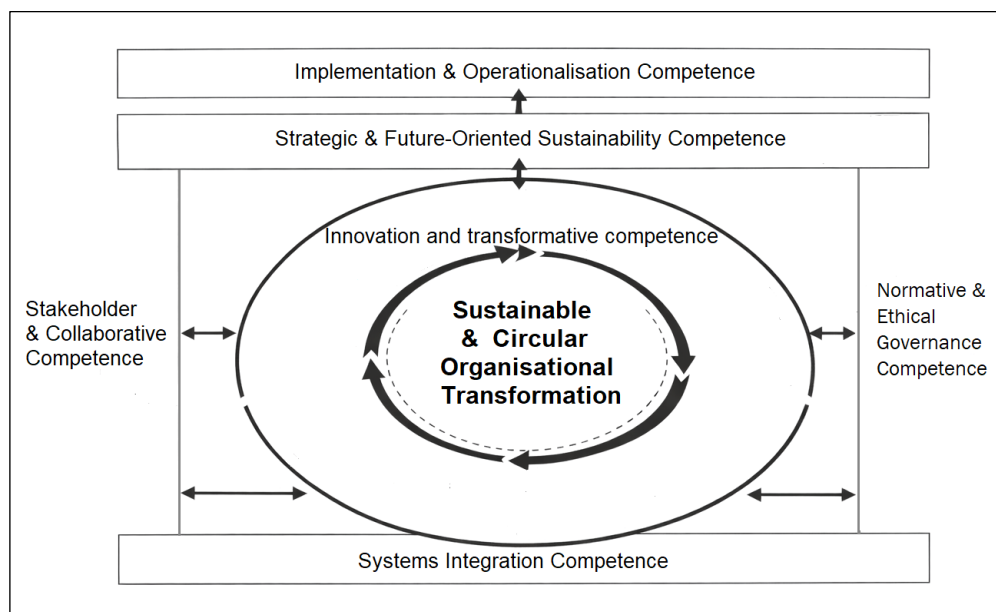
Accordingly, there is a need to reconceptualise sustainability competencies as interdependent managerial capabilities embedded within organisational strategy, governance structures,

innovation processes and operational systems. The following section synthesises recurring patterns across the reviewed studies to construct such an integrated framework.

Integrated Managerial Competency Framework

Building upon the qualitative thematic synthesis of the 39 reviewed studies, this section presents the integrated managerial competency framework. The framework consolidates recurring competency constructs identified across sustainability competency scholarship, circular economy literature, and managerial capability research. Rather than reproducing individual competency lists, the synthesis process grouped conceptually related constructs into six interdependent domains that reflect both analytical and operational dimensions of sustainability-oriented management. The resulting framework captures how managers interpret systemic complexity, define strategic direction, embed ethical commitments, mobilise relational networks, drive transformation and institutionalise execution within sustainability-driven organisational contexts.

Figure 1: Integrated managerial competency framework for sustainable and circular organizational transformation



Source: Own research

Conceptual Framework Description

Figure 1 presents sustainability and circular managerial competencies as an integrated capability architecture embedded within governance, innovation and operational systems. The model positions Systems integration competence as the foundational layer, reflecting its role in understanding interdependencies across environmental, social and organisational domains (Wiek et al., 2011; Redman & Wiek, 2021). Strategic and future-oriented competence emerges from this base, guiding transformation pathways (Nath et al., 2025; Sanchez et al., 2025).

Normative and ethical governance spans the framework horizontally, indicating its cross-cutting influence on strategic and operational domains (ElRabbat et al., 2025; Nocoñ et al., 2025). Stakeholder and collaborative competence connects the organisation to external

ecosystems (De los Rios & Charnley, 2017; Łupicka-Fietz & Jeszka, 2025). Innovation and transformative competence occupies the dynamic core, driving organisational redesign (Ferigotti et al., 2016; Freitas & Odelius, 2018). Implementation and operationalisation competence stabilises and institutionalises change within governance and performance systems (Kutaula et al., 2025; Redman & Wiek, 2021).

The model is cyclical and interactive rather than linear, reflecting iterative learning and adaptation in sustainability transitions (Pawłowska & Ihimbazwe Ndanguza, 2025; Ratinen et al., 2025).

Systems Integration Competence

Sustainability and circular economy challenges confront organisations with forms of complexity that exceed traditional managerial problem-solving. Decisions are embedded within socio-ecological systems characterised by interdependencies, feedback effects and multi-level dynamics. Systems Integration Competence captures the managerial capacity to recognise these interconnections and to align organisational action accordingly. It involves interpreting organisations not as isolated entities, but as actors situated within broader ecological, economic and institutional systems. Within sustainability competency scholarship, systems thinking is widely regarded as foundational. Wiek et al. (2011) argue that sustainability problems arise from interconnected constellations rather than isolated variables, requiring attention to causal chains, structural drivers and dynamic interactions. Redman and Wiek (2021) further emphasise that transformative action depends upon the ability to analyse cross-domain interdependencies and identify leverage points within complex systems. Recent contributions similarly stress that sustainability transitions require integrative reasoning that transcends disciplinary and organisational silos (Ratinen et al., 2025).

Comparable integrative logics are evident in managerial capability research. Studies examining sustainability-oriented organisational performance highlight the importance of cross-functional alignment, structural coherence and systemic coordination (D’Ascenzo et al., 2025; Fülöp, 2012). Rather than treating sustainability as a discrete functional responsibility, these works underline the need for integration across governance structures, strategic processes and operational routines.

Circular economy research reinforces this systemic orientation. Circular business model innovation entails the redesign of value creation systems across supply networks and stakeholder constellations rather than incremental product improvement (De los Rios & Charnley, 2017). Similarly, integrative circular–sustainability frameworks conceptualise economic activity as nested within ecological boundaries, demanding systemic reconfiguration rather than isolated efficiency gains (Geissdoerfer et al., 2017). From a dynamic capabilities perspective, organisational adaptation requires the ability to sense environmental shifts, seize emerging opportunities and reconfigure internal structures accordingly (Teece, 2007).

Across these streams, a consistent insight emerges: sustainability-oriented management requires the capacity to understand structural interdependence and anticipate cross-domain consequences. Without systemic integration, sustainability initiatives risk fragmentation, symbolic adoption or unintended trade-offs.

Systems Integration Competence therefore functions as the analytical foundation of the framework. It enables managers to identify leverage points, recognise interdependencies and align organisational design with systemic realities. Yet understanding complexity does not in itself determine organisational direction. Once interconnections are recognised, organisations must decide how to position themselves within evolving sustainability landscapes. This transition from analysis to orientation is addressed through Strategic and Future-Oriented Sustainability Competence.

Strategic and Future-Oriented Sustainability Competence

Where systems integration clarifies how sustainability challenges unfold, Strategic and Future-Oriented Sustainability Competence determines how organisations respond. Sustainability transitions demand deliberate positioning, anticipatory judgement and sustained commitment under conditions of uncertainty. This competence reflects the managerial capacity to align organisational purpose with emerging sustainability imperatives and to translate long-range vision into coherent strategic direction.

Within sustainability competency research, anticipatory competence refers to the ability to evaluate future scenarios, assess long-term implications and integrate prospective considerations into present decision-making (Wiek et al., 2011). Redman and Wiek (2021) argue that transformation depends upon envisioning alternative trajectories and aligning strategic choices with sustainability objectives rather than short-term performance metrics.

Sustainable leadership scholarship extends this perspective. Nath et al. (2025) demonstrate that leadership commitment and long-term orientation are critical for embedding circular economy principles within organisational strategy. Particularly in contexts marked by institutional volatility or resource constraints, strategic clarity and ethical vision enable organisations to navigate uncertainty while maintaining sustainability commitments.

Managerial capability research similarly emphasises purposeful alignment between innovation, organisational routines and environmental change. Ferigotti et al. (2016) show that sustainable innovation capability emerges from deliberate managerial choices that integrate technological development with evolving sustainability expectations. From a dynamic capabilities perspective, strategic competence entails sensing opportunities, committing resources and reconfiguring organisational assets in response to environmental shifts (Teece, 2007).

Industry 4.0 research further illustrates the need for integrative foresight. Shet and Pereira (2021) highlight competencies such as business acumen, systems awareness and design thinking as essential for navigating technologically intensive transformations. Ihimbazwe Ndanguza (2025) similarly demonstrates that integrating digitalisation with corporate social responsibility requires strategic alignment between technological capability and sustainability commitments.

Across these perspectives, a shared conclusion is evident: sustainability transformation requires forward-looking coordination between organisational ambition, technological development and societal expectation. Organisations that lack anticipatory orientation risk reactive adaptation and strategic drift, whereas those that cultivate future-oriented competence are better positioned to identify opportunities for circular innovation and long-term value creation.

Strategic and Future-Oriented Sustainability Competence thus provides the directional core of the framework. It builds upon systemic understanding while shaping organisational trajectory. However, strategic positioning must be grounded in normative commitments that define what forms of transformation are legitimate and socially desirable. This ethical anchoring is addressed through Normative and Ethical Governance Competence.

Normative and Ethical Governance Competence

If strategic competence defines where an organisation intends to move, Normative and Ethical Governance Competence clarifies the principles that guide that movement. Sustainability transformation is not value-neutral. It requires managers to embed ethical commitments within decision processes, accountability structures and organisational routines. This competence reflects the capacity to institutionalise sustainability values rather than treat them as symbolic declarations.

Within sustainability competency theory, normative competence involves understanding, negotiating and applying sustainability principles such as equity, intergenerational responsibility and ecological integrity (Wiek et al., 2011). Redman and Wiek (2021) emphasise that transformative action requires critical reflection upon prevailing norms and the capacity to realign organisational practice with sustainability goals.

Managerial competency research reinforces this governance dimension. Studies on green managerial competences indicate that environmental responsibility is shaped by value orientation, leadership example and organisational culture (Słupik et al., 2025). Similarly, research examining sustainability reporting in healthcare contexts demonstrates that managerial knowledge and organisational values significantly influence the quality and credibility of ESG disclosures (ElRabbat et al., 2025). These findings highlight that governance structures and reporting practices are expressions of deeper normative commitments.

Human resource management scholarship further demonstrates how ethical orientation becomes institutionalised. Kutaula et al. (2025) show that sustainability performance is mediated by HRM practices that embed sustainability principles within recruitment, training and performance management systems. Abdo and Edgar (2025) similarly emphasise the role of managerial competencies in fostering green behaviour through structured organisational support mechanisms.

Sector-specific studies provide additional evidence. In tourism, the explicit integration of green competences and ESG responsibilities into managerial profiles has been linked to more coherent sustainability governance (Nocoń et al., 2025). This suggests that ethical commitments can be formalised within competency frameworks, thereby reinforcing accountability and consistency.

Normative and Ethical Governance Competence therefore provides the ethical infrastructure of the integrated framework. It ensures that systemic analysis and strategic ambition are translated into legitimate and accountable organisational conduct. Moreover, it shapes how organisations engage stakeholders, distribute responsibilities and define performance criteria. Sustainability governance does not operate in isolation; it is enacted through relationships and collective processes. The relational dimension of sustainability transformation is addressed in Collaborative and Stakeholder Competence.

Collaborative and Stakeholder Competence

If normative governance provides ethical anchoring, sustainability transformation ultimately unfolds through relationships. Organisations operate within networks of employees, suppliers, customers, regulators and communities whose expectations, resources and actions shape the trajectory of change. Collaborative and Stakeholder Competence refers to the managerial capacity to build trust-based relationships, mobilise social capital and coordinate collective action across organisational and inter-organisational boundaries.

Sustainability competency scholarship has consistently highlighted interpersonal and participatory capabilities as critical to transformation processes. Wiek et al. (2011) emphasise interpersonal competence as the ability to facilitate collaboration, manage conflict and engage diverse stakeholders in problem-solving processes. Redman and Wiek (2021) further argue that sustainability transitions require inclusive dialogue and the negotiation of competing interests. Transformation is therefore not a purely strategic exercise but a relational process.

Recent work on relational leadership provides additional conceptual clarity. Ihimbazwe Ndanguza and Penkala (2025) demonstrate that relational leadership fosters social capital through trust-building, communication and shared norms

Social capital, in turn, functions as a strategic resource enabling organisational resilience. Their analysis highlights specific managerial competencies, including emotional intelligence, conflict management and effective communication, as operational mechanisms through which collaborative capacity is built. This perspective underscores that stakeholder engagement is not merely transactional; it is embedded in sustained relational practice.

Supply chain and Industry 5.0 research reinforces the importance of collaborative competence beyond organisational boundaries. Łupicka-Fietz and Jeszka (2025) identify communication, balanced thinking, problem-solving and the creation of open work environments as critical managerial competencies in digitally integrated supply chains. Their findings suggest that resilience and sustainability in technologically advanced environments depend upon the ability to coordinate across complex value networks. Managers must therefore integrate technical understanding with interpersonal sensitivity, particularly as digital transformation increases interdependence among actors.

Similarly, Pawłowska and Ihimbazwe Ndanguza (2025) emphasise that organisational resilience is strengthened by managerial competencies rooted in cooperation, trust and effective communication. They argue that resilience is not solely a structural attribute but also a relational one, emerging from collective capacity to respond to disruption. Social skills such as empathy and transparent communication are presented as foundational to maintaining morale and cohesion during periods of uncertainty.

Circular economy scholarship further extends the relational dimension. Circular business models rely upon coordinated action across supply chains, reverse logistics systems and cross-sector partnerships (De los Rios & Charnley, 2017). Such coordination requires not only strategic alignment but also stakeholder negotiation and trust. Without collaborative competence, circular initiatives risk fragmentation or opportunistic behaviour within networks. The justification for Collaborative and Stakeholder Competence lies in the distributed nature of sustainability challenges. Climate adaptation, resource efficiency and social responsibility

exceed the control of any single organisation. Effective response depends upon collective learning, shared responsibility and mutual trust. Managers who lack relational capability may design technically sound strategies that fail in implementation due to resistance, misalignment or breakdown in cooperation.

Within the integrated managerial competency framework, this competence connects governance commitments with systemic and strategic intent. It operationalises Normative and Ethical Governance Competence (4.3) by translating ethical commitments into stakeholder engagement practices. It supports Systems Integration Competence (4.1) by recognising inter-organisational interdependencies. It reinforces Strategic and Future-Oriented Sustainability Competence (4.2) by enabling coalition-building around long-term objectives. Moreover, it provides essential conditions for Innovation and Transformation Competence (4.5), where cross-boundary collaboration often underpins experimentation and business model redesign.

Collaborative and Stakeholder Competence therefore represents the relational infrastructure of the framework. It ensures that sustainability transformation is enacted through trust-based networks, participatory processes and resilient stakeholder partnerships rather than imposed through hierarchical control alone.

Innovation and Transformation Competence

While collaborative competence enables coordinated action, sustainability transformation ultimately depends upon the capacity to redesign products, processes and business models. Innovation and Transformation Competence refers to the managerial ability to mobilise resources, reshape routines and reconfigure organisational capabilities in response to evolving sustainability requirements.

Sustainable innovation literature emphasises that innovation within environmental contexts extends beyond incremental efficiency improvements. It involves integrating ecological, technological and market considerations into systemic organisational change. Ferigotti, Cunha and Fernandes (2016) demonstrate that sustainable innovation capability emerges from the interaction between managerial competencies and organisational routines. Their empirical analysis of product innovation projects shows that innovation outcomes are not solely determined by technological inputs but by managerial capacity to coordinate resources, manage teams and contribute strategically to paradigm transition. Importantly, they highlight that managerial competencies operate across multiple levels: individual skills (micro), team coordination (meso) and organisational routines and processes (macro). Innovation is therefore embedded in structured interaction rather than isolated managerial initiative. Their findings further indicate that higher degrees of innovation are associated with managerial competencies capable of anticipating technological shifts, combining resources across domains and aligning projects with environmental requirements.

This aligns with dynamic capability theory, which conceptualises transformation as the capacity to sense opportunities, seize them through investment and reorganise resource configurations (Teece, 2007). Within sustainability transitions, such reconfiguration must incorporate regulatory pressures, technological convergence and changing consumer expectations.

Broader managerial competency research reinforces this perspective. In their review of empirical studies, Freitas and Odelius (2018) identify “ability with change”, innovation orientation and adaptability as recurrent categories in managerial competency classifications. These competencies include stimulating creativity, mobilising change, managing uncertainty and responding to technological evolution. Notably, innovation-related competencies frequently co-occur with strategic vision, resource coordination and knowledge management, suggesting that transformation competence is integrative rather than isolated.

Innovation and Transformation Competence thus encompasses several interrelated capacities:

- recognising sustainability-driven technological shifts;
- orchestrating cross-functional experimentation;
- aligning innovation projects with strategic and normative commitments;
- embedding new routines within organisational structures; and
- managing the risks associated with paradigm transition.

The justification for this competence lies in the scale of sustainability challenges. Incremental optimisation is insufficient where systemic redesign is required. Circular economy transitions, digital–sustainability convergence and decarbonisation pathways all demand organisational reconfiguration rather than marginal adjustment. Managers must therefore act not only as coordinators but as transformation agents capable of reshaping resource bases and institutionalising new patterns of value creation.

Importantly, Innovation and Transformation Competence interacts strongly with the preceding competencies in the framework. Systems Integration Competence (4.1) enables managers to identify structural leverage points for innovation. Strategic and Future-Oriented Sustainability Competence (4.2) provides direction and prioritisation. Normative and Ethical Governance Competence (4.3) ensures that innovation aligns with sustainability principles rather than opportunistic green positioning. Collaborative and Stakeholder Competence (4.4) supplies the relational capital necessary for experimentation and network-based innovation.

Innovation and Transformation Competence therefore represents the dynamic core of the integrated framework. It converts systemic understanding, strategic intent and ethical commitment into concrete organisational redesign. Without this competence, sustainability ambition remains declarative rather than operational.

Implementation and Operationalisation Competence

While innovation competence enables transformation, sustainability transitions ultimately depend on disciplined execution. Implementation and Operationalisation Competence refers to the managerial capacity to translate sustainability strategies, governance commitments and innovation initiatives into routinised practices, measurable systems and resilient organisational processes.

Sustainability and circular transformation frequently fail not because of strategic weakness, but due to implementation gaps. Translating ambition into operational reality requires structured performance systems, competency measurement, training mechanisms and adaptive monitoring processes. Andino-González et al. (2025) demonstrate the importance of validated measurement instruments in assessing managerial skills aligned with sustainable organisational

development. Their systematic review highlights confirmatory factor analysis as a robust methodological tool for ensuring that leadership, communication, decision-making and teamwork competencies are reliably operationalised. This emphasis on validated assessment underscores that implementation competence is not intuitive; it requires measurable and structured capability frameworks.

Capacity-building research reinforces this operational dimension. Hidayat et al. (2025) show that targeted participatory training programmes significantly enhance managerial competence in sustainable tourism governance. Their findings indicate that sustainability implementation improves when managers receive structured support in strategic planning, stakeholder coordination and environmental management. Notably, participatory learning and collaborative governance approaches were shown to strengthen long-term implementation consistency. This suggests that operationalisation competence includes not only technical execution but also the ability to institutionalise learning processes.

Business continuity scholarship further highlights the link between managerial competencies and operational resilience. Kabii and Kinyua (2023) argue that communication, leadership, planning and teamwork competencies are critical in sustaining organisational continuity under dynamic market conditions. They demonstrate that managerial competencies influence business continuity both directly and through mediating organisational mechanisms. Sustainability transitions similarly require continuity management, ensuring that environmental commitments remain embedded even under economic or institutional pressure. Empirical evidence on organisational resilience strengthens this argument. Zheng and Dong (2025) show that management capability significantly enhances organisational resilience through improved governance and corporate responsibility mechanisms. Their findings suggest that implementation competence includes the capacity to adjust structures, refine decision processes and deploy resources dynamically when disruptions occur. Sustainability-oriented operationalisation must therefore be flexible rather than rigid, combining stability with adaptability.

Circular economy implementation research provides additional insight. Faisal-E-Alam et al. (2024) identify leadership commitment and training programmes as critical organisational drivers of circular economy implementation in SMEs. Their analysis demonstrates that environmental consciousness and innovation propensity must be supported by organisational systems and managerial commitment to produce sustained circular practices. In other words, strategic orientation and innovation potential require operational embedding to generate tangible outcomes.

Implementation and Operationalisation Competence thus comprises several interdependent dimensions:

- translating sustainability strategies into performance indicators and reporting systems;
- embedding sustainability criteria within HRM, training and evaluation processes;
- coordinating cross-functional execution;
- institutionalising monitoring and feedback mechanisms;
- maintaining organisational continuity and resilience under disruption;
- adapting routines in response to regulatory and market shifts.

The justification for this competence lies in the well-documented gap between sustainability ambition and practice. Organisations frequently articulate sustainability strategies yet struggle to integrate them into daily operations. Without operationalisation competence, systemic understanding, strategic orientation, ethical governance, collaborative alignment and innovation capacity remain fragmented.

Within the integrated managerial competency framework, Implementation and Operationalisation Competence serves as the stabilising mechanism. It consolidates prior competencies into structured routines and measurable systems. It ensures that sustainability becomes embedded within organisational architecture rather than dependent on individual leadership enthusiasm. At the same time, it maintains adaptability, recognising that resilience and continuity are dynamic rather than static conditions.

Implementation and Operationalisation Competence therefore represents the executional anchor of the framework. It transforms sustainability from aspiration into institutionalised organisational practice.

Taken together, the six competencies do not function as isolated managerial attributes but as mutually reinforcing dimensions of sustainability-oriented capability. Systems integration provides structural understanding; strategic competence defines direction; normative governance anchors legitimacy; collaborative capacity enables collective alignment; innovation competence drives redesign; and implementation competence institutionalises change. Their interaction reflects the complexity of sustainability and circular economy transitions, where analytical insight, ethical grounding, relational engagement and operational discipline must converge. The framework therefore conceptualises sustainable managerial competence not as a static skill set, but as an integrated and dynamic architecture of capabilities supporting long-term organisational resilience and transformation.

Theoretical Contributions

This study advances sustainability and management scholarship through three interrelated contributions. First, it extends sustainability competency theory from predominantly educational contexts to organisational governance by repositioning systems thinking, normative reasoning, and strategic competence as embedded managerial capabilities that bridge education discourse and management practice (Wiek et al., 2011; Redman & Wiek, 2021). Second, the framework integrates circular economy capabilities with established managerial models, clarifying how value-chain coordination, ecosystem collaboration, and business model innovation function as structural competency domains within a comprehensive architecture (De los Rios & Charnley, 2017; Sumter et al., 2020; Sanchez et al., 2025). Finally, it reconceptualises sustainability competencies as an interdependent managerial capability architecture aligned with dynamic capabilities theory, moving beyond discrete skill categorisations to mutually reinforcing domains that orchestrate organisational transformation (Teece, 2007; Freitas & Odelius, 2018).

Extending Sustainability Competency Theory into Organisational Contexts

Sustainability competency frameworks have provided a strong conceptual foundation for addressing complex socio-ecological challenges (Redman & Wiek, 2021; Wiek et al., 2011). However, empirical applications have largely concentrated on educational environments and competency assessment in higher education (Annelin & Boström, 2023; Cebrián et al., 2019). While this work has refined conceptual clarity and measurement approaches, the translation of sustainability competencies into managerial governance, strategic planning and organisational execution remains comparatively underdeveloped. Although process-based entrepreneurship models extend competency application into venture development contexts (Foucrier & Wiek, 2019), integration within established managerial governance and capability frameworks remains limited.

This study extends sustainability competency theory by explicitly repositioning these competencies within managerial practice. Systems thinking, normative reasoning and strategic competence are interpreted as organisational capabilities embedded within governance structures, innovation processes and performance systems. By integrating sustainability competency theory with empirical research on leadership, innovation and organisational transformation (Ferigotti et al., 2016; Nath et al., 2025; Sanchez et al., 2025), the framework bridges sustainability education discourse and management scholarship.

Integrating Circular Economy and Managerial Capability Research

Circular economy scholarship increasingly recognises that regenerative business models depend on organisational capabilities (De los Rios & Charnley, 2017; Sumter et al., 2020). Empirical studies highlight lifecycle awareness, stakeholder coordination and business model innovation as central to circular transitions (Łupicka-Fietz & Jeszka, 2025; Sanchez et al., 2025). Yet these capabilities are frequently discussed in sector-specific or fragmented terms rather than situated within a comprehensive managerial competency structure.

By synthesising circular economy capability research with sustainability competency theory and managerial models, this study provides an integrative perspective on how circular requirements, such as value-chain integration, ecosystem collaboration and transformation capacity, can be conceptualised within a coherent managerial framework. In doing so, the framework aligns with broader arguments for more integrated approaches to sustainability competence (Ratinen et al., 2025) and clarifies the managerial foundations of circular transformation.

Reconceptualising Sustainability Competencies as an Interdependent Managerial Architecture

A central theoretical contribution of this study lies in conceptualising sustainability and circular economy competencies as an interdependent managerial capability architecture. Traditional managerial competency models frequently classify skills into discrete categories (Freitas & Odelius, 2018), and sustainability competency frameworks are often operationalised as separate assessment dimensions (Redman & Wiek, 2021).

The present framework interprets recurring dimensions, systems integration, strategic orientation, governance competence, collaboration, innovation and implementation, not as

isolated skill sets but as mutually reinforcing domains that collectively enable organisational transformation. This interpretation is consistent with dynamic capability theory, which emphasises the coordinated orchestration of sensing, seizing and transforming capacities in changing environments (Teece, 2007).

By explicitly incorporating governance and operationalisation mechanisms, supported by empirical research linking managerial competence to reporting practices, HRM systems and organisational resilience (ElRabbat et al., 2025; Kutaula et al., 2025; Zheng & Dong, 2025), the framework advances a more integrated and managerially grounded theory of sustainability-driven transformation.

Practical Implications

The integrated managerial competency framework developed in this study provides actionable guidance for organisations pursuing sustainability and circular transformation. Across the reviewed literature, sustainability transitions are consistently associated with coordinated managerial capabilities spanning systems awareness, strategic alignment, governance, collaboration, innovation and implementation (De los Rios & Charnley, 2017; Kutaula et al., 2025; Nath et al., 2025). The implications outlined below derive directly from these findings.

Leadership Development and Strategic Alignment

Sustainability competencies are not automatically embedded in conventional management education or corporate leadership development programmes (Annelin & Boström, 2023; Cebrián et al., 2019). At the same time, empirical research demonstrates that strategic orientation and innovation capability influence sustainability and circular outcomes (Ferigotti et al., 2016; Sanchez et al., 2025).

Table 1. Applications of competency clusters across organisational functions.

Competency Cluster	Leadership Development/HR	Strategic Planning	Circular Economy Implementation
Systems Integration	Systems mapping workshops	ESG risk assessment	Lifecycle & value-chain analysis
Strategic Orientation	Scenario planning training	Long-term sustainability KPIs	Circular business model redesign
Normative Governance	Ethics & ESG certification	Sustainability reporting protocols	Regulatory compliance frameworks
Stakeholder Collaboration	Cross-functional team training	Ecosystem partnership strategies	Supply chain coordination platforms
Innovation	Design thinking programs	Innovation pipeline management	Regenerative product development

Implementation	KPI dashboard training	Performance management systems	Operational routine institutionalisation

Source: Author's elaboration

Organisations may therefore use the framework as a structured reference for leadership development. Training initiatives can incorporate systems mapping, scenario-based planning and ethical decision-making aligned with ESG principles (ElRabbat et al., 2025; Nocoñ et al., 2025). At the strategic level, sustainability should be embedded within core planning and governance processes rather than treated as a peripheral initiative. The framework provides boards and executive teams with a lens for assessing competency gaps and aligning sustainability objectives with managerial capability development.

Table 1 illustrates targeted applications of each competency cluster across key organisational functions.

Human Resource and Organisational Systems

Research in green human resource management indicates that managerial competence influences employee engagement in environmentally responsible behaviour (Abdo & Edgar, 2025) and is associated with broader sustainability performance outcomes (Kutaula et al., 2025). Organisations can therefore integrate the framework into recruitment criteria, competency assessment and performance appraisal systems.

Rather than focusing solely on technical environmental expertise, businesses may evaluate managerial capability across systems integration, collaboration, innovation and implementation domains. Embedding sustainability competencies within HRM systems reinforces sustainability as a structural expectation rather than an individual preference.

Circular Transformation, Performance and Resilience

Circular economy research highlights the importance of managerial capability in coordinating value chains and redesigning business models (De los Rios & Charnley, 2017; Sumter et al., 2020). Leadership and innovation capacity have been linked to circular business model adoption (Sanchez et al., 2025), while Industry 4.0 competency models emphasise alignment between digital transformation and sustainability objectives (Ihimbazwe Ndanguza, 2025; Shet & Pereira, 2021).

The framework suggests that circular transformation requires integrated capability development rather than isolated technological initiatives. Managers may align sustainability KPIs with strategic and governance objectives, strengthening institutionalisation and resilience (ElRabbat et al., 2025; Kabii & Kinyua, 2023; Zheng & Dong, 2025). By linking competency development with performance systems, organisations can enhance adaptive capacity in uncertain environments.

Limitations and Future Research

This study develops an integrated managerial competency framework based on a structured review of 39 peer-reviewed journal articles published between 2005 and 2025. Although transparent inclusion criteria were applied, the review was limited to accessible journal publications and relied on qualitative thematic synthesis rather than bibliometric or meta-

analytic techniques. Future research could extend this work by employing citation mapping, network analysis or quantitative validation methods to examine structural relationships between competency dimensions more systematically.

The proposed framework represents a conceptual integration rather than an empirically tested model. While the competency clusters reflect recurring patterns across sustainability and circular economy research (De los Rios & Charnley, 2017; Nath et al., 2025; Wiek et al., 2011), the architecture has not yet been validated as a unified construct in organisational settings. Subsequent studies may develop measurement instruments to test relationships between clusters and assess their influence on sustainability performance, circular business model adoption and organisational resilience, for example through confirmatory factor analysis or structural equation modelling (Andino-González et al., 2025).

Finally, the reviewed literature spans diverse sectors and contexts, which strengthens thematic recurrence but may obscure contextual variation. Future research could examine sector-specific configurations of managerial competencies and explore longitudinal changes driven by technological and regulatory developments (Shet & Pereira, 2021). Multi-level studies linking managerial capabilities with broader institutional and systemic sustainability transitions (Ratinen et al., 2025) would further enhance theoretical integration.

Conclusios

This study examined the managerial competencies required to support sustainable and circular business transformation through a structured review of 39 peer-reviewed journal articles published between 2005 and 2025. The synthesis identified six interdependent competency clusters that collectively form an integrated managerial architecture spanning systems integration, strategy, governance, collaboration, innovation and implementation.

The findings suggest that sustainability and circular transitions require coordinated managerial capabilities rather than isolated technical expertise or normative commitments. Across the reviewed literature, sustainability performance and circular adoption are associated with the integration of systemic awareness, strategic alignment, ethical governance, stakeholder coordination, innovation capacity and operational embedding. These dimensions function not as discrete skills but as mutually reinforcing components of organisational transformation.

By consolidating insights across sustainability competency theory, circular economy research and managerial capability scholarship, the proposed framework advances a more integrated understanding of managerial competence in sustainability-driven contexts. The model highlights the central role of managers in orchestrating strategic adaptation, embedding governance mechanisms and institutionalising sustainability within organisational systems.

Although further empirical validation is required, the framework provides a theoretically grounded and practically relevant foundation for future research and managerial development in sustainable and circular business environments.

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References

- Abdo, S. S., & Edgar, D. (2025). Nurturing green behaviour: Exploring managerial competencies for effective green human resource management in hotels. *Cleaner Production Letters*, 9, 100102. <https://doi.org/10.1016/j.clpl.2025.100102>.
- Andino-González, P., Vega-Muñoz, A., Salazar-Sepúlveda, G., Contreras-Barraza, N., Lay, N., & Gil-Marín, M. (2025). Systematic Review of Studies Using Confirmatory Factor Analysis for Measuring Management Skills in Sustainable Organizational Development. *Sustainability*, 17(6), 2373. <https://doi.org/10.3390/su17062373>
- Annelin A, Boström G (2023), "An assessment of key sustainability competencies: a review of scales and propositions for validation". *International Journal of Sustainability in Higher Education*, Vol. 24 No. 9 pp. 53–69, doi: <https://doi.org/10.1108/IJSHE-05-2022-0166>
- Bidart Carneiro de Novaes, M., & Brunstein, J. (2013). The development of managerial competencies: A collaborative inquiry into the practice of sustainability. *International Journal of Action Research*, 9(2), 246–269.
- Cebrián, G., Segalàs, J., & Hernández, À. (2019). Assessment of sustainability competencies: A literature review and future pathways for ESD research and practice. *Central European Review of Economics and Management*, 3(1), 19–44. doi: <http://dx.doi.org/10.29015/cerem.664>
- Chigbu, B. I. (2024). Advancing sustainable development through circular economy and skill development in EV lithium-ion battery recycling: A comprehensive review. *Frontiers in Sustainability*, 5, 1409498. <https://doi.org/10.3389/frsus.2024.1409498>
- D’Ascenzo, F., Vinci, G., Cancer, G., Ruggeri, M., & Savastano, M. (2025). The Evaluation of Corporate Sustainability Strategies in Italy: Challenges and Opportunity of Recycled Packaging. *Sustainability*, 17(8), 3608. <https://doi.org/10.3390/su17083608>
- De los Rios, I. C., & Charnley, F. J. S. (2017). Skills and capabilities for a sustainable and circular economy: The changing role of design. *Journal of Cleaner Production*, 160, 109–122. <https://doi.org/10.1016/j.jclepro.2016.10.130>
- ElRabbat, S. A., Benarous, D., ElAwad, I. H., El Hamdi, R., Barakat, S. A., & Alsharif, B. N. (2025). Managerial knowledge and values in Saudi healthcare: Sustainability reporting and commitment. *European Journal of Sustainable Development*, 14(2), 318. <https://doi.org/10.14207/ejsd.2025.v14n2p318>
- Fahmi, I., & Farida. (2025). Quantitative analysis of entrepreneurial orientation and managerial competence on cooperative performance in Indonesia. *Jurnal Ilmiah Akuntansi Kesatuan*, 13(6), 2127–2140. <https://doi.org/10.37641/jiakes.v13i6.4403>
- Faisal-E-Alam, M., Khan, M. R. A., Rahman, M. A., Ferreira, P., Almeida, D., & Castanho, R. A. (2024). Critical individual and organizational drivers of circular economy implementation in SMEs in Bangladesh. *Sustainability*, 16(16), 7149. <https://doi.org/10.3390/su16167149>
- Ferigotti, C. M. S., Cunha, S. K., & Fernandes, B. H. R. (2016). Managerial competencies for requirements of sustainable innovation: The case of Electrolux of Brazil S/A. *International Journal of Innovation and Sustainable Development*, 10(2), 160–176. <https://doi.org/10.1504/IJISD.2016.075547>
- Foucrier, T., & Wiek, A. (2019). A process-oriented framework of competencies for sustainability entrepreneurship. *Sustainability*, 11(24), 7250. <https://doi.org/10.3390/su11247250>
- Freitas, P. F. P., & Odelius, C. C. (2018). Managerial competencies: An analysis of classifications in empirical studies. *Cadernos EBAPE.BR*, 16(1), 35–49. <https://doi.org/10.1590/1679-395159497>

- Fülöp, G. (2012). Corporate sustainability and managerial competencies. *Theory, Methodology, Practice*, 8(2), 17–22.
- Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). The circular economy – A new sustainability paradigm? *Journal of Cleaner Production*, 143, 757–768. <https://doi.org/10.1016/j.jclepro.2016.12.048>
- Hassan, A. (2020). Managerial competencies required to achieve sustainable development projects: A proposed model for managers. *Environmental Management and Sustainable Development*, 9(3), 68–82. <https://doi.org/10.5296/emsd.v9i3.17603>.
- Hidayat, S., Pribadi, P., & Nurahman, A. (2025). Enhancing human resource capacity for sustainable tourism village management in Ciamis Regency. *Journal of Social and Community Development*, 2(2), 91–99. <https://doi.org/10.56741/jscd.v2i02.928>
- Ihimbazwe Ndanguza, A. P. (2025). Managerial Competence in Integrating Industry 4.0 with Corporate Social Responsibility for Enhanced Safety Culture in Manufacturing. *Sustainability*, 17(10), 4678. <https://doi.org/10.3390/su17104678>
- Ihimbazwe Ndanguza, A. P., & Penkala, M. (2025). From relational leadership to resilience: The role of social capital and managerial competencies. *Scientific Papers of Silesian University of Technology: Organization and Management Series*, 237. <https://doi.org/10.29119/1641-3466.2025.237.9>
- Kabii, R. M., & Kinyua, G. M. (2023). Managerial competencies and business continuity: A review. *International Journal of Education and Research*, 11(5), 1–14.
- Kutaula, S., Chowdhury, S., Gillani, A., Budhwar, P. S., & Dey, P. K. (2025). Linking HRM with sustainability performance through sustainability practices: Unlocking the black box. *British Journal of Management*, 36(2), 615–632. <https://doi.org/10.1111/1467-8551.12861>
- Lara, F. J., & Salas-Vallina, A. (2017). Managerial competencies, innovation and engagement in SMEs: The mediating role of organisational learning. *Journal of Business Research*, 79, 152–160. <https://doi.org/10.1016/j.jbusres.2017.06.002>
- Łupicka-Fietz, A., & Jeszka, A. M. (2025). Managerial competencies in supply chains for Industry 5.0. *Scientific Papers of Silesian University of Technology: Organization and Management Series*, 225. <https://doi.org/10.29119/1641-3466.2025.225.25>
- Nath, A., Phukan, B., Boruah, D., & Saikia, J. (2025). Sustainable leadership and circular economy practices: A framework for emerging economies. *International Journal of Advanced Multidisciplinary Application*, 2(8), 30–35. <https://doi.org/10.5281/zenodo.17582755>
- Nocoń, M., Mróz, B. P., Głuc, M., Petrovič, F., & Rákoš, J. (2025). The managerial competency profile in tourism: Integrating green competencies and ESG responsibilities. *Zeszyty Naukowe Akademii Górnośląskiej*, 30(6), 188–202. <https://doi.org/10.53259/2025.06.16>
- Pawłowska, E., & Ihimbazwe Ndanguza, A. P. (2025). *Contemporary competences of managers and their role in building organizational resilience*. In *Scientific Papers of Silesian University of Technology, Organization and Management Series* (No. 218). Silesian University of Technology Publishing House. <http://dx.doi.org/10.29119/1641-3466.2025.218.30>
- Ratinen, I., Kashani, J. S., & Linnanen, L. (2025). Challenges in modelling and measuring sustainability competencies crucial to successful sustainability transitions. *Environmental Education Research*, 31(3), 548–565. <https://doi.org/10.1080/13504622.2024.2363898>
- Redman, A., & Wiek, A. (2021). Competencies for advancing transformations towards sustainability. *Frontiers in Education*, 6. <https://doi.org/10.3389/feduc.2021.785163>
- Redman, A., Wiek, A., & Barth, M. (2021). Current practice of assessing students' sustainability competencies: A review of tools. *Sustainability Science*, 16(1), 117–135. <https://doi.org/10.1007/s11625-020-00855-1>
- Sanchez, D., Sulca, A., & Pacheco-Pumaleque, L. (2025). Influence of leadership on the adoption of circular and digital business models using PLS-SEM analysis. *Scientific Reports*, 15, Article 42328. <https://doi.org/10.1038/s41598-025-26414-1>
- Shet, S. V., & Pereira, V. (2021). Proposed managerial competencies for Industry 4.0: Implications for social sustainability. *Technological Forecasting and Social Change*, 173, 121080. <https://doi.org/10.1016/j.techfore.2021.121080>
-

- Słupik, S., Trzęsiok, J., Frączkiewicz-Wronka, A., Łukasik, D., & Morales-López, N. (2025). Antecedents of acquiring and developing green managerial competences: Insights from the perspective of entrepreneurs and district labour CEOs. *Economics and Environment*, 92(1), 1051. <https://doi.org/10.34659/eis.2025.92.1.1051>
- Sumter, D., de Koning, J., Bakker, C., & Balkenende, R. (2020). Circular Economy Competencies for Design. *Sustainability*, 12(4), 1561. <https://doi.org/10.3390/su12041561>
- Sumter, D., de Koning, J., Bakker, C., & Balkenende, R. (2021). Key competencies for design in a circular economy: Exploring gaps in design knowledge and skills for a circular economy. *Sustainability*, 13(2), 776. <https://doi.org/10.3390/su13020776>
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*, 14(3), 207–222. <https://doi.org/10.1111/1467-8551.00375>
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350. <https://doi.org/10.1002/smj.640>
- Wiek, A., Withycombe, L. & Redman, C.L. Key competencies in sustainability: a reference framework for academic program development. *Sustain Sci* 6, 203–218 (2011). <https://doi.org/10.1007/s11625-011-0132-6>
- Zheng, Y., & Dong, X. (2025). The Relationship Between Management Competence and Organizational Resilience. *Sustainability*, 17(9), 4118. <https://doi.org/10.3390/su17094118>

Appendix A. Overview of reviewed articles grouped by research stream

Stream 1: Sustainability competencies and education (14 articles)

ID	Author(s), Year	Methodological approach
1	Annelin & Boström, 2023	Structured literature review
2	Bidart Carneiro de Novaes & Brunstein, 2013	Qualitative collaborative inquiry
3	Cebrián et al., 2019	Literature review
4	Foucrier & Wiek, 2019	Conceptual framework
5	Hidayat et al., 2025	Empirical intervention study
6	Ratinen et al., 2025	Conceptual-empirical
7	Redman & Wiek, 2021	Conceptual framework
8	Redman et al., 2021	Literature review
9	Sumter et al., 2020	Empirical competency ID
10	Sumter et al., 2021	Empirical gap analysis
11	Wiek et al., 2011	Conceptual framework
12	Tranfield et al., 2003	Methodological
13	Chigbu, 2024	Sectoral review
14	Ferigotti et al., 2016	Case study

Stream 2: Managerial competencies and organisational capabilities (17 articles)

ID	Author(s), Year	Methodological approach
1	Abdo & Edgar, 2025	Qualitative empirical
2	Andino-González et al., 2025	Systematic review
3	D’Ascenzo et al., 2025	Empirical study
4	ElRabbat et al., 2025	Quantitative survey
5	Fahmi & Farida, 2025	Quantitative survey
6	Freitas & Odelius, 2018	Empirical classification

13th International Scientific Conference
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7	Fülöp, 2012	Conceptual
8	Hassan, 2020	Quantitative survey
9	Ihimbazwe Ndanguza & Penkala, 2025	Quantitative empirical
10	Kabii & Kinyua, 2023	Literature review
11	Kutaula et al., 2025	Quantitative survey
12	Lara & Salas-Vallina, 2017	Quantitative survey
13	Łupicka-Fietz & Jeszka, 2025	Empirical study
14	Nocoń et al., 2025	Quantitative empirical
15	Pawłowska & Ihimbazwe Ndanguza, 2025	Conceptual-empirical
16	Ślupik et al., 2025	Quantitative empirical
17	Zheng & Dong, 2025	Quantitative survey

Stream 3: Circular economy and dynamic capabilities (8 articles)

ID	Author(s), Year	Methodological approach
1	De los Rios & Charnley, 2017	Conceptual with cases
2	Faisal-E-Alam et al., 2024	Quantitative survey
3	Nath et al., 2025	Conceptual framework
4	Sanchez et al., 2025	PLS-SEM quantitative
5	Shet & Pereira, 2021	Conceptual framework
6	Teece, 2007	Conceptual theory
7	Geissdoerfer et al., 2017	Conceptual Circular-sustainability integration
8	Ihimbazwe Ndanguza, 2025	Empirical survey Industry 4.0-circular

THE FORMATION OF EDUCATIONAL POLICY AND THE PROCESS OF HISTORICAL DEVELOPMENT OF THE EUROPEAN UNION

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Abstract

This paper examines the theoretical foundations and historical evolution of educational policy within the broader process of European Union integration and accession. It analyses how education gradually emerged as a relevant policy field in the European project, moving from a marginal and supportive role in the early stages of economic integration to a strategic instrument for social cohesion, mobility and the development of human capital within the European area. The study explores the institutional and policy dynamics that shaped the development of European education policy, beginning with the post–World War II foundations of European cooperation and continuing through major policy initiatives, programmes and institutional mechanisms that have strengthened educational cooperation among Member States. Particular attention is given to the role of European educational programmes such as COMETT, SOCRATES, the Lifelong Learning Programme and Erasmus+, as well as more recent initiatives including the European Universities Initiative, the Digital Education Action Plan and the European Education Area. The analysis also considers the balance between national sovereignty and European coordination in education policy, highlighting how the European Union promotes cooperation and policy alignment while respecting the diversity of national education systems. By examining the historical, legal and policy dimensions of EU educational cooperation, the paper provides a comprehensive understanding of how education contributes to the broader objectives of European integration, including economic development, social inclusion and the strengthening of a common European knowledge space.

Keywords: European Integration, Education Policy, European Union Programmes, European Education Area, Educational Cooperation

Introduction

After the end of World War II, a group of European states – Germany, France, Italy, Belgium, the Netherlands and Luxembourg – took initiatives to create a new form of international cooperation aimed at guaranteeing political stability and economic development on the continent. This institutional cooperation was initially built on economic foundations and aimed at creating an integrated economic space that would help rebuild Europe and prevent future conflicts between European states (Fontaine, 2007). In this early phase of European integration, the economic dimension was the dominant element, while other areas of public policy, including education, did not yet constitute a direct priority of the European community. However, as time passed and the integration process deepened, it became increasingly clear that the construction of a common economic market also required the development of

mechanisms that would enable social and cultural cooperation between member states. In this context, education began to be perceived as an important instrument for the realization of the broader objectives of European integration. The European Union's education policy was initially developed as a response to the economic needs of the common market and to the demand for a more qualified and mobile workforce in the European space (Besgul, 2013).

From this perspective, the interest of European institutions in education was directly linked to the functioning of the internal market and to the need to develop human capital in an increasingly integrated economy. However, the economic dimension was not the only factor influencing the development of European education policy. With the expansion of cooperation between member states, it was understood that economic integration could not be achieved in a sustainable manner without a certain level of social and cultural integration between the citizens of European countries.

In this sense, education began to be seen as an instrument that could contribute to the construction of a common European cultural and social space. Through educational policies and inter-university cooperation programmes, the European Union aimed to promote intercultural understanding, develop a sense of European belonging and support the process of political and social integration of the continent (Besgul, 2013). Thus, the European Union's education policy was gradually shaped as a result of the interaction between economic and social factors.

Research Methodology

This paper adopts a qualitative and analytical research approach in order to examine the theoretical foundations and historical development of educational policy within the broader framework of European integration. The objective of the paper is to analyse how education gradually emerged as a policy field within the European Union and how it has been shaped by institutional, legal and political developments over time. Given the complex nature of European integration, which involves institutional evolution, policy coordination and normative frameworks, qualitative methods provide an appropriate analytical framework for understanding these processes.

The methodological approach is primarily based on historical analysis, legal analysis, policy analysis and document analysis. These complementary methods allow for a comprehensive interpretation of the development of EU educational policy and its role within the wider process of European integration.

The historical-institutional analysis method is used to examine the evolution of European education policy from the early stages of European integration to the present. This approach focuses on key milestones in the development of European cooperation in education, beginning with the Treaty of Rome (1957) and the initial focus on vocational education, and continuing through later developments such as the First Action Plan for Education (1976), the establishment of the Eurydice network, and the creation of major European educational programmes. By analysing these developments chronologically, the research highlights how education gradually became an important component of the European integration process.

The paper also employs legal analysis to explore the normative foundations of education policy within the European Union. Although education remains largely within the competence of Member States, European institutions have developed a framework that encourages cooperation and coordination between national education systems. Legal analysis focuses on primary EU law and institutional mechanisms that regulate educational cooperation, as well as on the principles governing the relationship between national sovereignty and European policy coordination in the field of education.

In addition, the paper uses policy analysis to examine the development of European educational programmes and strategic initiatives that support cooperation among Member States. Particular attention is given to programmes such as COMETT, SOCRATES, the Lifelong Learning Programme and Erasmus+, as well as more recent initiatives including the European Universities Initiative, the Digital Education Action Plan and the European Education Area. These programmes are analysed as policy instruments designed to promote academic mobility, institutional cooperation and the development of human capital within the European area.

A significant part of the research is also based on document analysis, which involves the systematic examination of academic literature, official European Union documents, policy reports and strategic frameworks related to education and European integration. Through the analysis of these sources, the research identifies key trends in the evolution of EU education policy and assesses its role in supporting broader objectives such as economic development, social cohesion and the creation of a common European knowledge space.

Overall, the methodological framework adopted in this paper allows for a comprehensive understanding of how education policy has developed within the European Union and how it contributes to the broader process of European integration and institutional cooperation.

Literature review

The literature on European integration emphasizes that education has also been an important tool for achieving the broader objectives of social justice and equality of opportunity. In this sense, the European Union's education policy aims not only to contribute to economic development, but also to promote equality and social inclusion in European societies (Fontaine, 2007). Education is seen as a mechanism that can help reduce social inequalities and create equal opportunities for citizens of the member states.

Another important aspect of the European Union's education policy is its role in supporting other community policies. Education is not only treated as a separate sector of public policies, but also as an element that contributes to the achievement of the objectives of the European Union in various fields. In this sense, European education policy serves as an instrument that facilitates the implementation of other Union policies, including employment policies, scientific research, technological development and environmental protection (Horvath, 2007). Through academic mobility programmes and international exchanges of students and teachers, the European Union aims to strengthen ties between citizens of the Member States and to create a common European academic space. These initiatives contribute to the development of a common European culture and to the strengthening of the integration process between the Member States.

However, the development of an educational policy at the European level also faces important challenges related to the diversity of the educational systems of the Member States. The European Union is made up of countries with different historical, cultural and institutional traditions, which is also reflected in the structure and organisation of their educational systems (Kihitir, 2004). These differences can create difficulties in the process of educational cooperation, but at the same time they can also constitute an important source for the development of new ideas and practices.

In fact, one of the main characteristics of the European Union's approach to education is the respect for the diversity of national educational systems. The European Union does not aim to impose a single educational model on all member states, as such an approach would be contrary to the traditions and institutional structures of each state (Tuzcu, 2006). Instead, European education policy is based on the principle of cooperation and coordination between member states.

In this context, the harmonization of education systems is considered more important than their standardization. The aim of the European Union is not to create an identical education system for all member states, but to develop mechanisms that enable cooperation between different education systems and that facilitate the recognition of qualifications and academic mobility. This approach is based on the idea that institutional and cultural diversity can be turned into an advantage for the European Union, creating opportunities for innovation and the development of best practices in the field of education (Kihtir, 2004).

To minimize the difficulties that may arise from these differences between education systems, the European Union has developed policies aimed at strengthening cooperation between member states in this area. These policies include initiatives and programs that encourage the exchange of experiences, the development of joint projects and the promotion of common quality standards in education (Charlier&Croché, 2005).

Although the European Union recognizes the primary responsibility of the Member States for the organization of their national systems of general education, in practice several directions have been consolidated that have been considered essential for the development of educational policy in the European area. Among them are the expansion of vocational education, the construction of a common approach in this area, the shift from rigid vertical models to more flexible horizontal models of education, as well as the learning of at least two foreign languages before the end of compulsory education. These directions have been treated as fundamental conditions for the functioning of an integrated European area of education and training (Aslan, 2010).

The first official contact of the European Community with education issues is related to the Treaty of Rome of 1957, specifically with Article 128, where attention was focused mainly on vocational education. At this early stage, education was not yet conceived as an autonomous Community policy, but as an auxiliary instrument for the realization of the fundamental freedoms of the common market, in particular the free movement of persons and services. For this reason, special importance was given to the recognition of diplomas abroad and the promotion of foreign language learning, as tools that would facilitate mobility in the community space (Besgul, 2013). However, as has been pointed out in the literature, these developments still remained at a declarative level and did not immediately transform into a genuine common educational policy; they served more to highlight the importance of education in the function of deepening the European partnership (Duman, 2002).

Since the 1960s, the political and economic dynamics that accompanied the development of the European Economic Community made it clear that integration could not be based solely on economics. With the gradual expansion of cooperation, it became necessary to extend coordination to other areas, including education. However, this trend met with resistance, especially from countries such as France, which insisted that education should remain, above all, a matter of national sovereignty and be dealt with on the domestic platforms of each country (Palayret, 1994). It is precisely this clash between the tendency for European coordination and the protection of national competence that explains why educational policy, for a long period, developed more in the form of intergovernmental cooperation than in the classic supranational framework of the Community.

This dualism is of particular importance to understand even today, because it constitutes one of the fundamental features of European education policy: education has always been an area where integration has been advanced not through compulsory standardization, but through coordination, orientation and the gradual building of consensus. Precisely for this reason, the history of the European Union's education policies is not a history of centralization, but a history of progressive Europeanization, measured and conditioned by the acceptance of national diversity.

In the 1970s, the lack of sufficient institutional experience and technical elements to build a clear educational project at European level meant that education was not yet perceived as one of the Community's priority areas (Cakir, 2010). At that time, the actions taken took the form of suggestions and recommendations rather than structured policies. However, this very soft nature of the intervention testifies to the gradual way in which the Community began to create the foundations of a more common approach to education.

The changing importance of education in the European discourse is closely linked to the 1973 oil crisis, the economic slowdown and the rise in unemployment, especially among young people. These developments led the Community to see education no longer simply as a cultural element, but as a possible mechanism for coping with the economic and social crisis. In this sense, education began to be interpreted as an instrument to improve skills, to facilitate the transition from school to employment and to help the individual better integrate into the labour market (Ertl, 2003; Kilic, 2009). This shows that the Community's education policy was born, to a large extent, from the pragmatic need to respond to structural crises and not just from an idealistic vision of European culture or citizenship.

Until the end of the 1970s, the Community did not yet have a leading education policy that would involve all Member States in a uniform manner. However, studies and debates at the time show that the importance of education was growing precisely because it was increasingly seen as a means to achieve the economic objectives of the Community. This functional approach did not exclude the wider social dimension of education; on the contrary, it created the ground for education to be seen both as a mechanism for economic development and as an instrument of social cohesion.

An important moment in this development was the Commission's 1974 decision on vocational education, which is often considered one of the foundations of the European system of vocational education. This decision initially reaffirmed that education remained essentially a national system, but at the same time acknowledged the need to create a committee composed of representatives of the Member States with the aim of approximating national systems. This approach was significant: the aim was not to completely standardise educational programmes, but to harmonise them in the interests of the integration process (Karaman, 2013). This logic remains today one of the basic principles of the European Union's action in education: not forced unification, but comparability, compatibility and cooperation.

Following these developments, in 1976 the “First Action Plan for Education” was adopted, which marked a clearer step towards the formulation of concrete objectives in this field. This plan aimed to facilitate the transition of young people from education to professional life, to improve educational opportunities for migrant workers, to promote language education and to strengthen cooperation in higher education (Karluk, 2005). In theoretical and practical terms, this document is important because it shows that education began to be considered as an area with a direct impact on some of the most sensitive problems of the time: employment, mobility, social integration and the development of human capital.

At the same time, the increased attention to education was also linked to another trend: some policymakers began to see education as a tool for building European citizenship. This gradually shifted the function of education from a purely economic instrument to one with identity and political weight. At the same time, the crisis of economic confidence that Europe experienced made even more evident the need for policies that not only produced skills, but also strengthened the legitimacy and cohesion of the European project (Ertl, 2003). In this regard, education began to emerge as an area where the economic, social and political interests of integration interacted directly.

The creation of the Eurydice network in 1980 marks another important step in the institutionalization of educational cooperation at the European level. Eurydice was conceived as an information network for the collection, processing and dissemination of reliable data on

educational systems and policies in Europe, with the aim of making these available to actors drafting public policies and contributing to the construction of common approaches based on cooperation (Kilic, 2009). From an analytical point of view, the creation of Eurydice demonstrates that European educational policy began to rely increasingly on comparative knowledge, on data and on mutual institutional learning. This means that integration in education did not develop only through political declarations, but also through the construction of mechanisms that made it possible to compare, evaluate and approximate national systems.

If this development is seen in a broader plan, it becomes clear that the educational policy of the European Union was not formed as a result of an immediate and centralized project, but as a slow process of institutionalization. Initially based on the needs of the common market and free movement, then in response to economic crises and unemployment, and gradually expanded to include the social, cultural and civic dimensions of European integration. This is precisely what makes the history of EU education policy important to study: it shows how an area that remains ostensibly national can acquire European significance not through a complete transfer of competences, but through a shared need for coordination and through the construction of common objectives.

In this context, dividing the historical development of EU education policies into certain phases, as proposed by Charlier and Croché (2005), is particularly useful. Such an approach allows us to understand not only the chronology of developments, but also the transformation of the function of education in the European project itself: from a supporting tool for economic integration, to an instrument for social cohesion, mobility, citizenship and the construction of a common knowledge area.

European Union Educational Programs

The European Union strives to achieve its objectives in the field of education and training through a series of educational programmes that have gradually developed over the last decades. These programmes constitute one of the most important instruments of the EU's educational policy, as they aim to promote cooperation between educational institutions, organisations and individuals in the European area. Essentially, the EU's educational programmes are designed to financially support projects and initiatives that contribute to the development of education, youth and vocational training at European level.

In a broader perspective, these programmes aim to strengthen institutional and interpersonal cooperation between the Member States of the European Union. Through various activities, such as academic mobility, research projects and joint educational initiatives, European citizens have the opportunity to exchange experiences and cooperate with individuals and institutions from different cultures. This interaction contributes not only to the development of individuals' professional and academic competences, but also to the formation of a broader European consciousness and a strengthening of the sense of belonging to the European space. Participation in these programmes often also affects the personal development of individuals. By taking responsibility within the framework of educational projects and cooperating with partners from different countries, participants develop new skills, increase self-confidence and improve their intercultural competences. Furthermore, the experience of international cooperation creates a favorable environment for understanding and dialogue between different cultures, which contributes to the realization of one of the fundamental objectives of the European Union: strengthening integration and cohesion among the peoples of Europe.

The first dimension relates to the quality of education. In this regard, Member States are encouraged to work towards improving quality at every level of their education and vocational training systems. Quality in education is not only related to learning outcomes but also includes

the quality of the teaching and learning process, the professional development of teachers and pedagogues, as well as the improvement of didactic materials and methods used in the educational process. This approach reflects the belief that a quality education system is one of the main factors for economic development and for increasing the competitiveness of the European Union in a global knowledge-based economy.

One of the principles guiding the development of these programmes is the concept of lifelong learning. This concept is based on the idea that education and skills development should not be limited to the early stages of life but should continue throughout the individual's professional and personal life. For this reason, the European Union's educational programmes are designed to support the learning process at every stage of life and to contribute to the continuous development of the competences of European citizens.

In this context, the European Union has stressed that the education system should contribute to the achievement of several fundamental objectives related to the development of the individual and society. Firstly, education should enable the individual to recognise and develop his or her personal and professional potential, contributing to building a full and productive life. Secondly, the education system should help to reduce social inequalities and improve equal opportunities for individuals and different social groups. Third, education should contribute to economic development by improving the skills of the workforce and increasing the level of job satisfaction of employees in the labour market (Commission of the European Communities, 2001).

The European Union's educational programmes have evolved continuously since the late 1980s, reflecting changes in the Union's political and economic priorities. The first important programme in this regard was COMETT (Community Programme for Education and Training for Technology), which was adopted in 1987. The main aim of this programme was to encourage cooperation between universities and industry in the European Union countries, aiming to improve the link between higher education and technological development.

In the following years, the European Union developed other educational programmes aimed at supporting cooperation in various fields of education and training. Among them, the SOCRATES I and SOCRATES II programmes, which were implemented during the period 1995–2006 and included various initiatives for educational cooperation between European countries, can be mentioned.

Another important step in this direction was the creation of the Lifelong Learning Programme (2007–2013), which aimed to promote lifelong learning and support cooperation between educational institutions at different levels. This programme included several specific sub-programmes covering school education, higher education, vocational education and adult education.

In 2014, the European Union introduced the ERASMUS+ programme, which represents a further development of the previous educational programmes and brings together initiatives in the fields of education, training, youth and sport in a single framework. The ERASMUS+ program aims to increase academic and professional mobility, strengthen inter-institutional cooperation and improve the quality of education systems in Europe.

Over the last decade, the European Union has developed and supported a series of programmes and initiatives aimed at modernising education systems, increasing academic mobility, developing skills for the knowledge economy and strengthening cooperation between educational institutions in Europe. These programmes are part of the European Union's broader strategies for economic and social development, such as the Europe 2020 strategy, the European Education Area initiative, as well as programmes for digital transformation and skills development.

In this context, the European Union’s education policies have focused on several key areas: improving the quality of education, increasing access to education, developing digital competences, strengthening academic mobility and promoting lifelong learning.

The Erasmus+ programme

One of the most important European Union programmes in the field of education over the last decade is Erasmus+, which was launched in 2014 and continues to be implemented in the period 2021–2027. This programme represents an extension and consolidation of previous EU programmes in the fields of education, training, youth and sport.

Erasmus+ aims to promote the mobility of students, teachers, pupils and education professionals at European and international level. The programme also supports the development of joint projects between educational institutions and different organisations, contributing to the modernisation of education systems and the improvement of the quality of education in Europe (European Commission, 2023).

Through Erasmus+, millions of European students have had the opportunity to study or carry out a professional internship in another European country. In addition, the programme has contributed to increasing cooperation between universities, promoting the development of joint study programmes and research projects.

European Universities Initiative

Another important initiative in the field of higher education is the European Universities Initiative, which was launched by the European Commission in 2019. The aim of this initiative is to create networks of European universities that cooperate closely in the fields of education, research and innovation.

These European universities operate as international alliances that aim to develop joint study programmes, promote academic mobility and create an integrated higher education area in Europe. In this way, the initiative contributes to building a more integrated and competitive European higher education system (European Commission, 2022).

Digital Education Action Plan

The digital transformation of education has been another important priority for the European Union in recent years. In this regard, the European Commission has adopted the Digital Education Action Plan (2021–2027), which aims to support the use of digital technologies in education systems and improve the digital competences of European citizens. This plan includes a series of initiatives aimed at developing the digital infrastructure of educational institutions, improving the digital skills of teachers and students, and promoting the use of new technologies in the teaching and learning process (European Commission, 2021). The COVID-19 pandemic made the importance of the digital transformation of education even more evident, as many educational institutions were forced to switch to various forms of online learning and use digital platforms to develop educational activities.

European Education Area

Another strategic initiative of the European Union is the creation of the European Education Area (EEA), which aims to create a common educational space in Europe by 2025. The aim of this initiative is to enable students and pupils to have the opportunity to study and train in

different European countries without administrative or institutional barriers. The European Education Area includes a series of objectives related to improving the quality of education, promoting academic mobility, developing digital competences and strengthening cooperation between educational institutions in Europe (European Commission, 2020).

This initiative is closely linked to the Bologna Process and to efforts to create a more harmonised and transparent system of higher education in Europe.

In the context of Albania's European integration process, education represents an important area of structural reforms and institutional approximation. Chapter 26 of the *acquis Communautaire*, which deals with education and culture, does not require direct transposition of European legislation, but focuses on cooperation and active participation in EU programmes and initiatives in this sector (European Commission, 2022). For this reason, Albania's inclusion in the European Union's educational programmes constitutes an important indicator of gradual integration into the European Education Area.

In the last two decades, Albania has participated in several key EU programmes in the field of education, such as Erasmus+, Horizon Europe (education and research dimension), Tempus (predecessor of Erasmus+), Jean Monnet Actions, Creative Europe (educational cultural dimension) and the European Solidarity Corps. These programmes have contributed to the modernisation of Albanian universities, increased student and teacher mobility, and improved the quality of the education system.

Conclusion

The historical development of educational policy within the European Union demonstrates that education gradually evolved from a marginal and supportive sector into a strategic element of the broader European integration process. In the early stages of European cooperation, particularly after the Second World War, integration efforts were primarily focused on economic reconstruction and the creation of a common market. Consequently, education was initially perceived as a complementary instrument that could support economic development, particularly by promoting vocational training, labour mobility and the recognition of professional qualifications. However, as European integration deepened and cooperation among Member States expanded, education increasingly acquired a broader political, social and cultural significance.

The analysis presented in this study shows that the development of European education policy has been shaped by a complex interaction of economic, social and institutional factors. Over time, European institutions and Member States recognised that the success of economic integration required not only the creation of a common market but also the development of human capital, intercultural understanding and social cohesion among European citizens. In this context, education emerged as a key policy area capable of supporting multiple objectives of the European project, including economic competitiveness, social inclusion and the strengthening of a common European identity.

An important characteristic of European education policy is that it has developed primarily through cooperation and coordination rather than through the centralisation of authority at the supranational level. Education remains largely within the competence of Member States, reflecting the diversity of historical, cultural and institutional traditions across Europe. Instead of imposing a uniform educational model, the European Union has promoted mechanisms that facilitate collaboration between national systems, encourage the exchange of best practices and enhance the comparability of qualifications and study structures. This approach has allowed the Union to respect national sovereignty while gradually building a common framework for educational cooperation.

European educational programmes have played a crucial role in strengthening this cooperation. Initiatives such as COMETT, SOCRATES, the Lifelong Learning Programme and Erasmus+ have contributed significantly to increasing academic mobility, promoting institutional partnerships and supporting the modernisation of education systems. More recent initiatives, including the European Universities Initiative, the Digital Education Action Plan and the development of the European Education Area, demonstrate the growing strategic importance of education in addressing contemporary challenges such as digital transformation, global competition and the development of a knowledge-based economy. In conclusion, the evolution of educational policy within the European Union illustrates how an area traditionally considered a national responsibility has gradually acquired a European dimension through cooperation, coordination and shared policy objectives. Education has become an essential component of the European integration project, contributing not only to economic development but also to social cohesion, cultural exchange and the formation of a common European knowledge space.

References

- Aslan, G. (2010). *European Union education policies and reflections on member states*.
- Besgul, M. (2013). *European Union education policies and their historical development*.
- Cakir, H. (2010). *The development of education policy in the European Union*.
- Charlier, J. E., & Croché, S. (2005). The Bologna Process: The reform of higher education in Europe. *European Education*, 37(3), 7–23.
- Duman, T. (2002). *European Union education policy*.
- Ertl, H. (2003). The European Union and education and training: An overview of policies and initiatives. *Oxford Review of Education*, 29(1), 5–17.
- European Commission. (2020). *Achieving the European Education Area by 2025*.
- European Commission. (2021). *Erasmus+ annual report*.
- European Commission. (2022). *Education and training monitor*.
- Karluk, R. (2005). *European Union and Turkey: Education dimension*.
- Karaman, A. C. (2013). *Vocational education policies in the European Union*.
- Kilic, A. (2009). *European Union education systems and policies*.
- Palayret, J. M. (1994). *Education and European integration*.

BOLOGNA PROCESS AND ITS IMPLEMENTATION IN ALBANIA

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Abstract

The Bologna Process represents one of the most significant initiatives for the transformation and harmonisation of higher education systems in Europe. This study examines the implementation of the Bologna Process in Albania within the broader framework of the country's European integration process. Particular attention is given to the legal, institutional and policy reforms undertaken since Albania joined the European Higher Education Area (EHEA) in 2003. The study analyses how European standards and principles, such as the three-cycle degree structure, the European Credit Transfer and Accumulation System (ECTS), quality assurance mechanisms and the recognition of academic qualifications, have been incorporated into the Albanian higher education system. The research adopts a qualitative methodological approach based on legal analysis, policy analysis and document analysis of European and national sources. Special focus is placed on key reforms, including the adoption of Law No. 80/2015 on Higher Education and Scientific Research, the development of the Albanian Qualifications Framework and the establishment of quality assurance mechanisms aligned with European Standards and Guidelines (ESG). The findings suggest that Albania has achieved substantial formal alignment with the principles of the Bologna Process and has established the necessary legal and institutional structures for integration into the European Higher Education Area. However, the analysis also highlights several challenges related to the effective implementation of these reforms, including the development of a sustainable quality culture, the full operationalisation of the qualifications framework and the strengthening of institutional capacities within universities. The study concludes that while the Bologna Process has significantly contributed to the Europeanisation of the Albanian higher education system, further efforts are required to ensure that the structural reforms are translated into effective academic practices and institutional performance.

Keywords: Bologna Process; European Higher Education Area; higher education reform; Albania; European integration.

Introduction

The European integration process of the Republic of Albania involves the gradual approximation of legislation and public policies to the *acquis* of the European Union. In this context, the field of education occupies a special place due to its role in the economic, social and institutional development of a candidate country. However, unlike other areas of the *acquis*, such as the internal market, competition or food safety, education does not constitute a fully harmonised competence at the level of the European Union.

According to Article 165 of the Treaty on the Functioning of the European Union, the Union contributes to the development of quality education by supporting and complementing the actions of the Member States, while fully respecting their responsibility for the organisation of education systems and the content of teaching (European Union, 2016). Consequently, Albania's approximation to the *acquis* in the field of education does not involve mandatory harmonisation of legislation in the same way as in other areas, but consists mainly of adopting European standards, participating in EU policies and programmes and developing institutional mechanisms that ensure quality, transparency and mobility in the education system.

Albania's main obligations in this sector stem from the Stabilisation and Association Agreement between Albania and the European Union, from the accession negotiation process under Chapter 26 - Education and Culture, as well as from the country's commitments under the Bologna Process and the European Higher Education Area.

The main legal basis for cooperation between Albania and the European Union in the field of education is found in the Stabilisation and Association Agreement (SAA), which entered into force in 2009. This agreement establishes a broad framework for cooperation between the parties in various fields, including education, vocational training and youth policies.

In accordance with Article 100 of the SAA, cooperation between Albania and the EU aims to contribute to raising the level of general and vocational education in Albania, as well as to improving youth policies. In particular, the agreement emphasizes that an important priority for the Albanian higher education system is to achieve the objectives of the Bologna Declaration, by promoting academic mobility, recognition of diplomas and harmonisation of study structures (European Union, 2009).

In addition, the SAA stipulates that access to education and training must be guaranteed without discrimination on grounds of gender, ethnic origin, religion or social affiliation, reflecting the fundamental principles of the European Union on equality and social inclusion.

In the framework of accession negotiations, the field of education is addressed in Chapter 26 of the *acquis*, which covers European Union policies in the fields of education, training, youth and sport. Unlike other negotiation chapters, Chapter 26 does not require detailed legal harmonisation, but focuses on the candidate country's ability to participate effectively in EU policies and programmes (European Commission, 2024).

One of the most important elements of Albania's approximation to European standards in education is its participation in the Bologna Process, which aims to create a European Higher Education Area (EHEA). The Bologna Process aims to harmonize higher education structures in Europe through several fundamental principles, including:

- a. organizing studies in three cycles (Bachelor, Master and Doctorate);
- b. using the European Credit Transfer System (ECTS);
- c. promoting student and teacher mobility;
- d. ensuring quality in higher education;
- e. mutual recognition of diplomas and academic qualifications.

According to the Bologna Process monitoring reports, participating countries, including Albania, are obliged to implement European standards and guidelines for quality assurance in higher education (European Higher Education Area, 2024).

Methodology

This paper adopts a qualitative research approach in order to analyse the development of the Bologna Process and its implementation within the Albanian higher education system. A qualitative methodology is particularly appropriate for studying complex institutional and

policy transformations such as those associated with European integration in the field of education. The Bologna Process represents not only a technical reform of higher education structures, but also a broader process of institutional adaptation, policy coordination and normative convergence between national systems and European standards. For this reason, qualitative analysis enables a deeper understanding of how these reforms are interpreted, implemented and institutionalised within the Albanian context.

The methodological framework of the paper combines several complementary analytical methods, including legal analysis, policy analysis and document analysis. These methods make it possible to examine both the European and national dimensions of the Bologna Process and to understand the interaction between European educational initiatives and domestic reform processes.

Legal analysis constitutes one of the central methodological tools of this paper. This method focuses on examining the legal and regulatory framework governing higher education reforms in Albania within the broader context of the European Higher Education Area (EHEA). Particular attention is given to the analysis of Law No. 80/2015 “On Higher Education and Scientific Research in the Republic of Albania”, which represents the main legislative instrument regulating the organisation, governance and quality assurance mechanisms of the Albanian higher education system. Through this legal examination, the research evaluates how national legislation incorporates the principles and structural elements of the Bologna Process, such as the three-cycle degree structure, the European Credit Transfer and Accumulation System (ECTS), and institutional quality assurance mechanisms aligned with the European Standards and Guidelines for Quality Assurance (ESG).

In addition to legal analysis, the paper employs policy analysis to explore the evolution of higher education reforms in Albania within the framework of the Bologna Process. Policy analysis focuses on the examination of strategic policy documents, governmental reports and European-level policy initiatives that influence the development of higher education systems. This approach allows the study to assess how European priorities related to academic mobility, quality assurance and qualifications frameworks are reflected in Albanian education policies and reform strategies.

Document analysis represents another key methodological component of the research. The analysis is primarily based on the systematic examination of official documents produced by European and national institutions. These include reports of the European Commission on Albania’s progress in the accession process, publications and implementation reports of the European Higher Education Area, ministerial communiqués related to the Bologna Process, as well as national policy documents and legislation regulating higher education in Albania. These sources provide valuable information for understanding the institutional and policy developments that have shaped the implementation of Bologna reforms in the Albanian context.

The methodological approach adopted in this paper is therefore analytical and interpretative in nature. Rather than focusing on quantitative indicators, the research aims to interpret institutional reforms, legislative developments and policy transformations that have occurred within the Albanian higher education system since the country joined the Bologna Process in 2003. By combining legal, policy and document analysis, the paper provides a comprehensive understanding of how European higher education standards have influenced the transformation of Albania’s university system and its gradual integration into the European Higher Education Area.

The transformations in European higher education over the last three decades have been closely linked to the creation of a more harmonised and internationally competitive system. One of the most important instruments that has influenced this process is the Bologna Process, an

intergovernmental initiative aimed at creating a common higher education area in Europe, known as the European Higher Education Area (EHEA).

The Bologna Process represents a structural reform of higher education in Europe, which aims to harmonise the university systems of the participating countries through common academic standards, study structures and quality assurance mechanisms. Although it is not formally part of the *acquis Communautaire*, it has a direct link to the education policies of the European Union and to Chapter 26 of the accession negotiations, which relates to education and culture (European Commission, 2023).

Albania has been part of this process since 2003 and has undertaken a series of reforms to align its university system with European standards.

The Bologna Process is an intergovernmental initiative aimed at reforming and harmonizing higher education systems in Europe to create a common academic area.

This process officially began on 19 June 1999, when the ministers of education of 29 European countries signed the Bologna Declaration in the city of Bologna, Italy. The main goal was to create a European university system that would be more transparent, comparable and globally competitive (EHEA, 2020). Today, the Bologna Process includes 49 countries, making it one of the largest educational cooperation initiatives in the world. Unlike the classic policies of the European Union, the Bologna Process is not a legally binding policy, but an intergovernmental cooperation mechanism, in which participating countries voluntarily commit to implementing the reforms set out in ministerial declarations and official communications.

The Bologna Process has several strategic objectives aimed at transforming higher education in Europe.

Creating a comparable degree structure

One of the main objectives was to create a standardized structure for university studies. This structure consists of three main cycles:

- a. first cycle – Bachelor
- b. Second cycle – Master
- c. third cycle – Doctorate

This structure aims to increase the transparency and comparability of university degrees in Europe.

European Credit System (ECTS)

Another essential element is the use of the European Credit Transfer and Accumulation System (ECTS).

This system measures the academic workload of students and allows the transfer of credits from one university to another. In this way, students can study at different European universities without losing their academic progress.

Promoting academic mobility

The Bologna Process aims to increase the mobility of students, teachers and researchers in Europe. Academic mobility is considered an important instrument for:

- a. improving the quality of education;
- b. developing inter-university cooperation;
- c. creating a European academic identity;

Quality assurance in higher education

One of the most important components of the process is the creation of quality assurance mechanisms in European universities. In this context, standards and guidelines for quality assurance in European higher education, known as European Standards and Guidelines for Quality Assurance (ESG), were created.

Recognition of diplomas and academic transparency

The Bologna Process also aims to facilitate the international recognition of academic diplomas and qualifications.

Formally, the Bologna Process is not a European Union mechanism in the strict institutional sense, because it also involves non-EU countries and operates on an intergovernmental basis. However, for the EU it is of strategic importance for several reasons. First, it creates a more coherent space for academic and professional mobility, supporting the European knowledge market and freedom of movement. Second, it helps the international competitiveness of European universities, which was also one of the central concerns of the 1999 Declaration. Third, Bologna serves as a bridge between higher education, research, employment and European integration policies. For this reason, the ministerial documents of Rome 2020 and Tirana 2024 also present the EHEA as an area closely linked to academic quality, resilience, inclusion and fundamental values.

For candidate countries, the importance increases even more. In the enlargement plan, effective participation in the EHEA and the implementation of the Bologna standards function as evidence that the country can integrate not only legally, but also institutionally and culturally into the European space. This is why the European Commission reports on Albania directly mention the country's membership in the EHEA and participation in Erasmus+, European Education Area working groups and capacity-building projects in higher education. So, for the EU, Bologna is also an instrument of the Europeanization of candidate countries.

In this regard, the Diploma Supplement has also been developed, a document that accompanies the university diploma and describes in detail the content of the studies completed.

Albania has been a full member of the Bologna Process/EHEA since 2003. This is the formal moment of the country's entry into the European architecture of higher education. Official EHEA sources clearly confirm this date, while early stocktaking documents show that at that same time national legislation was also changed to pave the way for the new cycle structure. Albania's first reports point out that in 2003 the law on higher education was amended to enable the two-part structure, while in the following years national structures were also established to oversee the implementation of Bologna. This moment should be read not as an isolated act, but as part of a broader political orientation of Albania after the 2000s towards Euro-Atlantic integration. In higher education, this meant a gradual move away from the post-socialist model of universities with structures that were not very comparable internationally, towards a more transparent, modular and readable system for European partners. In doctoral terms, it can be said that Albania's entry into Bologna in 2003 marked the transition from a “closed national” logic of study organisation to a “transnational logic of standardisation”.

The first phase of implementation in Albania is characterised by the formal adoption of the basic elements of Bologna. This phase was not yet a deep transformation of university culture,

but rather an adaptation of normative structures to the minimum requirements of the EHEA. The first national reports of Albania show that a steering committee was set up to oversee the implementation of the Bologna Declaration and that the reform initially focused on the structure of studies, ECTS and initial quality assurance mechanisms. In this sense, Albania followed a model widespread in many countries in the region: initially the forms and categories were reformed, while the content and real institutional functioning remained slower to change. This distinction between formal convergence and substantial transformation is essential for the analysis of Albania. The introduction of cycles, credits and new European terminology does not automatically mean that Albanian universities immediately became student-centred, research-intensive, international and governed according to the best European standards. This is where the main tension of the Albanian case begins: Bologna was quickly accepted as a reform framework, but its full internalisation in practice proved much more difficult.

If the entry of 2003 was the moment of formal acceptance of the Bologna Process, then Law No. 80/2015 “On Higher Education and Scientific Research” is the key point of the deeper reconfiguration of the Albanian system. The official EHEA website for Albania itself emphasizes that this law regulates the mission, objectives, organization, financing and quality assurance of higher education institutions “in accordance with European standards”. On the other hand, official Albanian policy documents on higher education present the 2015 reform as the foundation of the new legal and institutional framework, emphasizing that it laid the groundwork for greater financial autonomy, academic freedom, higher standardization of the system and more organic links with the labor market.

At this stage, the clearest institutionalization of the Bologna principles in Albania occurs. Law 80/2015 conceives higher education as a public good and responsibility; recognizes academic freedom and the autonomy of institutions; organizes the programmes according to modules and credits in line with ECTS; and provides for specific institutions and procedures for quality assurance. The results of a web search clearly show that study programmes are assessed in ECTS credits and that the standard rate is 60 credits per academic year. The law also creates a central role for the quality assurance agency in higher education. These are precisely the technical mechanisms through which Bologna moves from a declarative level to a legal architecture.

The Higher Education Policy Document 2025 explicitly acknowledges that Law 80/2015 began its implementation “in a contested environment” and that after nearly a decade, an in-depth analysis of its impact is needed, especially on performance-based funding and university profiling. This is very significant: the Albanian state itself acknowledges that the 2015 reform was important, but not closed. So, 2015 is a turning point, not a point of conclusion (Ministry of Education and Sports, 2025).

One of the most significant indicators of Albania’s progress within the Bologna Process is the development of the Albanian Qualifications Framework (AQF). The qualifications framework is an essential instrument for harmonizing education systems and increasing the transparency of learning outcomes at European level. In Albania, the AQF was initially adopted by Law No. 10247/2010 “On the Albanian Qualifications Framework”, and was subsequently revised and consolidated through legal amendments in 2018, reflecting subsequent developments in the Bologna Process and the requirements of European integration (European Training Foundation, 2023; Ministry of Education and Sports, 2025).

The Albanian Qualifications Framework consists of eight levels, which include all forms of education and vocational training, starting from basic education up to doctoral level. Its structure is designed in line with the European Qualifications Framework (EQF) and the Qualifications Framework of the European Higher Education Area (QF-EHEA), aiming at the international comparability and recognition of Albanian qualifications (European Training Foundation, 2023).

An important step in this direction was the process of referencing the Albanian Qualifications Framework to the EQF and self-certifying its compatibility with the QF-EHEA in 2021, which represents an important moment in Albania’s integration into the European architecture of higher education. This development indicates a transition from a phase of formal imitation of Bologna structures towards the construction of a system that aims to guarantee real and internationally readable equivalence of academic qualifications (European Commission, 2024; European Training Foundation, 2023).

From an analytical point of view, this is an important success for the Albanian higher education system. Without a referenced and self-certified qualifications framework, Bachelor, Master and Doctorate cycles risk remaining formal labels without a solid basis for international comparability.

Through the QFA linked to the EQF and the QF-EHEA, Albania gains an important mechanism for the transparency of learning outcomes, the comparability of diplomas and their recognition in the European Higher Education Area (European Commission, 2024).

However, even in this regard, some important challenges remain. First, the formal reference to the framework does not automatically guarantee its full use by higher education institutions and the labour market. Second, strategic education policy documents in Albania acknowledge that the development of short-cycle and level 5 qualification programmes remains a challenge, due to limited demand from students and the labour market (Ministry of Education and Sports, 2025). This means that part of the Bologna institutional architecture has been built at the legal and structural level but has not yet been fully operationalised in practice.

Another fundamental element of the Bologna Process is quality assurance in higher education, which aims to guarantee common academic standards and mutual trust between European university systems. In Albania, the development of quality assurance mechanisms has been closely linked to the institutional and legal reforms undertaken in the last decade, in particular with the adoption of Law No. 80/2015 “On Higher Education and Scientific Research in Higher Education Institutions in the Republic of Albania” (Republic of Albania, 2015).

This law created a new institutional framework for quality assurance in higher education and defined the role of the institutions responsible for the accreditation and monitoring of university programmes. According to official documents of the European Higher Education Area, Albania has established national institutions for the accreditation and quality assessment of higher education, striving to harmonize its system with the European Standards and Guidelines for Quality Assurance (ESG) (European Higher Education Area, 2024).

However, an analysis of Albania’s progress highlights an important gap between building a formal quality assurance framework and developing a real quality culture within universities. The Higher Education Policy Document 2025 emphasizes that institutions related to the financing of teaching, research and quality assurance still need to be strengthened in terms of institutional capacities, management and measurement of academic performance (Ministry of Education and Sports, 2025).

In this sense, the main challenge for the Albanian system is no longer simply the existence of accreditation institutions, but the system's ability to develop sustainable mechanisms that make quality assurance a real instrument for improving university education.

Conclusion

The Bologna Process has played a decisive role in the transformation of higher education in Albania and has become one of the clearest expressions of the country’s gradual integration into the wider European educational and institutional space. Although education is not a fully harmonised field within the *acquis* of the European Union, Albania’s obligations under the Stabilisation and Association Agreement, Chapter 26 of the accession process, and its

membership in the European Higher Education Area have made higher education reform a strategic area of approximation with European standards. In this respect, the Bologna Process has functioned not only as an educational reform agenda, but also as an important mechanism of Europeanisation.

The analysis shows that Albania has made substantial progress in the formal adoption of the core principles of the Bologna Process. Since joining the EHEA in 2003, Albania has gradually restructured its higher education system around the three-cycle model, introduced ECTS-based study programmes, promoted academic mobility, and developed institutional mechanisms for quality assurance and qualification transparency. These reforms culminated in the adoption of Law No. 80/2015, which represents the most significant legal and institutional effort to align Albanian higher education with European standards. Likewise, the establishment and development of the Albanian Qualifications Framework, especially its referencing to the EQF and compatibility with the QF-EHEA, mark important achievements in strengthening the transparency and international comparability of Albanian qualifications.

At the same time, the study demonstrates that formal convergence with Bologna standards does not automatically lead to substantive transformation. One of the main conclusions of this analysis is that Albania's experience reflects the broader tension between the legal adoption of European models and their effective implementation in institutional practice. While the legal and policy architecture of Bologna has been largely established, important challenges remain in transforming this framework into a fully functioning academic system characterized by quality culture, institutional accountability, student-centred learning and strong international competitiveness.

In particular, the findings highlight persistent weaknesses related to the operationalisation of the qualifications framework, the limited development of short-cycle qualifications, and the insufficient consolidation of quality assurance mechanisms as genuine tools for institutional improvement. The challenge for Albania is therefore no longer simply to adopt European structures, but to deepen their implementation and ensure their sustainability. This requires stronger institutional capacities, more effective governance, better performance measurement and closer links between higher education and labour market needs.

Ultimately, the Bologna Process has provided Albania with a powerful framework for reform and integration. It has moved the country away from a closed and nationally isolated model of higher education toward a more transparent, comparable and internationally connected system. However, the success of this transformation will depend on Albania's ability to move beyond formal compliance and to build a higher education system in which European standards are fully internalised in everyday institutional and academic practice.

References

- Aristotle. (2004). *Nicomachean ethics*. Oxford University Press.
- Aslan, G. (2010). *European Union education policies and reflections on member states*.
- Besgul, M. (2013). *European Union education policies and their historical development*.
- Çabej, E. (1982). *Studimeetimologjikenëfushëtëshqipëse*. Akademia e Shkencave e Shqipërisë.
- Cakir, H. (2010). *The development of education policy in the European Union*.
- Charlier, J. E., & Croché, S. (2005). The Bologna Process: The reform of higher education in Europe. *European Education*, 37(3), 7–23.
- Council of Europe & UNESCO. (1997). *Convention on the Recognition of Qualifications concerning Higher Education in the European Region (Lisbon Recognition Convention)*. Lisbon.
- Dewey, J. (1916). *Democracy and education*. Macmillan.
- Duman, T. (2002). *European Union education policy*.
- Durkheim, É. (1956). *Education and sociology*. Free Press.

- Ertl, H. (2003). The European Union and education and training: An overview of policies and initiatives. *Oxford Review of Education*, 29(1), 5–17.
- European Association for Quality Assurance in Higher Education. (2015). *Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)*. Brussels.
- European Commission. (2010). *Europe 2020 strategy*.
- European Commission. (2020). *Achieving the European Education Area by 2025*.
- European Commission. (2021). *Erasmus+ annual report*.
- European Commission. (2022). *Education and training monitor*.
- European Commission. (2024). *Albania 2024 Report*. Brussels: European Commission.
- European Commission. (2025). *Albania 2025 Report*. Brussels: European Commission.
- European Council. (2017). *Recommendation on the European Qualifications Framework for lifelong learning*. Brussels.
- European Higher Education Area. (2024). *Bologna Process Implementation Report*.
- European Training Foundation. (2023). *National qualifications framework developments in Europe: Albania*. ETF Publications Office.
- European Union. (2009). *Stabilisation and Association Agreement between the European Communities and their Member States and the Republic of Albania*.
- European Union. (2016). *Treaty on the Functioning of the European Union*. Brussels.
- INSTAT. (2025). *Education enrollment statistics 2024–2025*. Institute of Statistics of Albania.
- Karaman, A. C. (2013). *Vocational education policies in the European Union*.
- Karluk, R. (2005). *European Union and Turkey: Education dimension*.
- Kilic, A. (2009). *European Union education systems and policies*.
- Ministry of Education and Sports. (2021). *National Education Strategy 2021–2026*. Tirana: Government of Albania.
- Ministry of Education and Sports. (2025). *Higher Education Policy Document*. Tirana.
- OECD. (2019). *Education at a glance*.
- Palayret, J. M. (1994). *Education and European integration*.
- Plato. (2007). *The Republic*. Penguin Classics.
- Republic of Albania. (2015). *Law No. 80/2015 on higher education and scientific research in higher education institutions in the Republic of Albania*.
- Rousseau, J.-J. (1979). *Emile, or On education*. Basic Books.
- UNESCO. (2015). *Education 2030: Incheon declaration and framework for action*.

CURRENT DEVELOPMENTS IN THE ALBANIAN AND EUROPEAN UNION LEGAL FRAMEWORK REGARDING RETURNED EMIGRANTS

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Abstract

"Return Migration" is a field of study that has been gaining increasing importance throughout the European Union over the last decade, which has been paying extensive attention to this phenomenon, making it a central topic in many adopted Regulations and Directives. The hypothesis of this study is that in the Albanian legal system the internal legal framework dealing with the protection of returning emigrants has developed progressively since the fall of the communist system and has a gradual approximation to European Union standards, but there is still a wide gap between what Albanian legislation provides and the practical implementation of legal acts and policies of public institutions, confronting returned immigrants with many challenges in the economic, social and administrative fields. In order to verify the above hypothesis, the authors have raised the main research question: "How has the Albanian legal framework evolved regarding the reintegration of returned immigrants and to what extent has this legislation been adapted and harmonized with the policies of the European Union of the last 10 years?" In addition to this main research question, the authors have also raised several secondary research questions, which ultimately enabled to confirm the hypothesis raised. In function of the main research question, this paper will aim to conduct a concise analysis of the evolution of the Albanian legal system regarding the treatment of returned emigrants, starting from 1991 until 2025. Furthermore, through a detailed analysis, the strategies of recent years in the Albanian state regarding the rights of immigrants will be addressed, as well as the essential role that local government plays in the reintegration of

returned immigrants. This paper will also focus on the innovations of recent years in European Union legislation on this phenomenon. The 2021 Strategy "On Voluntary Return and Reintegration" adopted by the European Commission is of crucial importance and should be applied as fully as possible by Albanian public institutions in order to ensure that the rights of returned migrants are implemented as effectively as possible. The study also paid attention to the treatment of problems encountered in practice, such as in the case of returned immigrants who are potential victims of trafficking, the equivalence of diplomas, their professional training and social housing programs.

Keywords: Migration, Emigration, Return migration, Reintegration of Emigrants, Repatriation Agreements, Emigrant Status

1.Introduction

The integration of migrants, both in the context of traditional migration and return migration, is fundamentally a matter of paramount importance. Successful integration contributes significantly to the overall well-being, social cohesion, and economic development of society. Conversely, unsuccessful integration may lead to long-term consequences, increasing levels of prejudice, racism, discrimination, and xenophobia within society.

“Respect for the fundamental constitutional rights of migrants is driven by legal, moral, and economic considerations.” (European Commission, Action Plan on the Integration of Third-Country Nationals, 2016).

The importance of addressing return migration in Albania is clearly reflected in data published by Eurostat. In 2022, approximately 74,000 third-country nationals who had entered and remained illegally in the European Union were returned by decision outside EU territory. The largest number of returned nationals were Albanian citizens (9,500), followed by Georgians (7,500), while Turkish nationals ranked third (4,000). (<https://ec.europa.eu/eurostat>)

2. Evolution of the Albanian legal framework on returned migrants

In the following section, a brief overview will be presented of how Albanian legislation has evolved in addressing cases of returned emigrants.

a. Law No. 7517/1991 “On the employment of Albanian citizens outside the territory of the Republic of Albania”

This was the first law through which the Albanian state aimed to regulate the legal issues arising from the phenomenon of migration. However, this law regulated only regular migration and applied exclusively in cases where migrants intended to work in a foreign country through a lawful employment contract.

Both employment contracts and professional qualifications were facilitated by Albanian state institutions, namely the Ministry of Education, the Ministry of Finance, and the Committee of Labor and Social Welfare.

This law also established the “Emigration Office”, under the authority of the Committee of Labor, which was to operate with branches in foreign countries. The purpose of this office was to protect the interests of Albanian citizens employed abroad.

Irregular migration and return migration were not addressed by this law. The only provision referring to returned migrants is found in Article 10, which states that: “The period of employment abroad shall be recognized as valid for pension purposes for workers who return to their home country.”

b. Law No. 7939/1995 “On Migration”

The purpose of this law was to establish a framework aimed at facilitating, to the greatest possible extent, regular migration of Albanian citizens for employment abroad. However, the law does not address irregular migration or the manner in which the issues arising from such cases should be resolved.

Furthermore, this law recognizes the right of Albanian citizens who have left the territory of the Republic of Albania to return. In addition, it imposes an obligation on the Ministry of Labor and Social Welfare to establish a scheme that promotes and facilitates both regular migration and the return of Albanian citizens.

This law also regulated legal matters related to asylum procedures; however, this part of the law was repealed following the adoption of Law No. 8432/1998 “On Asylum in the Republic of Albania.”

c. Law No. 9034/2003 “On the migration of Albanian citizens for employment purposes”

The term “migrant” is defined more broadly compared to previous legal acts, including for the first time within this category Albanian citizens who leave the Republic of Albania for other countries in an irregular manner.

Specifically, the term “irregular migrant” refers to those Albanian citizens who do not meet all the conditions and requirements established by the host country regarding entry, stay, and the exercise of activities within its territory.

With regard to return migrants, the law recognizes, in principle, the right of every Albanian citizen who has left the territory of the Republic of Albania to return. It also obliges the state to create facilities enabling returned migrants to exercise their right to vote.

Unlike the previous legal framework, this law, for the first time, introduces a specific provision regulating the reintegration of returned migrants. It establishes as a state obligation the support of their reintegration into economic and social life by creating legal, financial, and fiscal incentives, as well as by implementing business development and employment programs (Law No. 9034/2003, Article 13).

For the first time, this law also provides for the creation of a “Migrant Register”, which is to be established and administered by the Ministry of Labor and Social Affairs and in which Albanian citizens intending to migrate abroad for employment purposes are to be registered. However, in practice, this register did not become fully functional or regularly updated until 2011.

d. Law No. 9668/2006 “On the migration of Albanian citizens for employment purposes”

This law addresses migration issues in a detailed manner and remains in force as of 2025. For the first time, migration is treated in a significantly more comprehensive and professional way, and the “Migrant Day” is officially recognized in Albania, commemorated every year on July 2, in honor of emigrants.

The purpose of this law is to ensure the care, protection, and preservation of the national identity of Albanian citizens, as well as to maintain and strengthen their ties with their country of origin while they are employed outside the territory of the Republic of Albania.

Within the category of “returned migrants,” the law includes not only those returning from regular migration, but also those who return voluntarily or are forcibly returned following irregular migration.

With regard to returned migrants, Law No. 9668/2006 establishes as an obligation for state authorities to create legal and administrative facilities for all Albanian citizens who wish to return. This may be achieved through “readmission agreements with host countries.”

Furthermore, Law No. 9668/2006 recognizes in considerable detail the right of returned migrants to receive free information and counseling regarding professional training, social protection, housing opportunities, education, and social insurance available in Albania.

In addition, returned migrants are granted the right to be exempt from customs duties and taxes on personal belongings and movable property belonging to them and their family members, as well as on tools and movable equipment necessary for the profession they intend to practice (Law No. 9668/2006, Article 9).

This law also provides once again for the “Migrant Register,” maintaining the legal framework previously established by Law No. 9034/2003. This register contains not only data related to Albanian citizens employed abroad or those expressing the intention to work abroad, but also data on returned Albanian migrants. Registration in this register is of particular importance, as it grants registered individuals the “Migrant Status,” which entitles them to benefit from free language or professional courses. These benefits are available only to those individuals registered in the register, as well as to their family members who intend to reunite with them or migrate alongside them.

From its establishment in 2003 until the legal amendments of 2011, this register was managed by the Ministry of Labor. However, its effectiveness and continuous updating were not successfully achieved in practice. With the legal amendments of 2011, through Law No. 10389/2011, the administration of this register was transferred to the Regional Employment Offices, and a “Central Migrant Register” was established within the General Directorate of the National Employment Service. This transfer of competence to the Employment Offices proved to be successful; however, as will be analysed further, considerable work remains to be done with regard to the registration and identification of returned migrants.

Following the legal amendments introduced in 2011, individuals holding “Migrant Status” were granted the right to obtain a “Migrant Status Document.” Through this document, they can be formally identified and gain access to additional specific services, particularly in the fields of housing, healthcare, education, and social protection.

Furthermore, this law elaborates the obligation of the competent Albanian authorities to promote the voluntary return of migrants by developing programs in cooperation with domestic and international NGOs, as well as with the Albanian private sector.

In addition, state authorities are required to promote the reintegration of migrants into economic and social life and to establish fiscal incentives to support this process (Law No. 9668/2006, Article 22).

This law also recognizes the obligation of the Ministry of Education to implement joint programs with foreign institutions aimed at facilitating the voluntary return of students educated abroad, as well as the prompt recognition of their diplomas and professional qualifications.

With the amendments made to this law in 2011, “Migration Counters” were established for the first time. These counters operate within Regional Employment Offices and provide information services to Albanian citizens who intend to migrate, as well as support services for the reintegration of returned migrants.

2.1 The most important strategies on migration

It is worth briefly addressing some of the most important strategies adopted in recent years.

a. Strategy 2010–2015 “On the reintegration of returned Albanian citizens”

This strategy was implemented starting in 2010 and aims to ensure the most comprehensive possible integration of Albanian citizens returning to Albania.

The 2010–2015 Strategy consolidated the decisive role of the “Migration Counters,” where returned migrants receive preliminary information across various fields, including:

- employment relations
- social protection and pension schemes

- the healthcare system
- procedural steps required to establish a business, among others

b. National Migration Strategy 2023–2027 and its Action Plan 2024–2026

This Strategy is aligned with:

- the National Plan for European Integration 2022–2024, as well as
- the National Education Strategy 2021–2026

The migration strategy supports the reintegration of Albanian asylum seekers returned from European Union countries.

c. National Strategy for Development and Integration 2030

This strategy emphasizes that one of the key policy objectives, considered a priority within this legal document, is: “The promotion of regular migration and the protection of migrants’ rights, as well as their integration into Albanian society.”

2.2 International Conventions

In addition to domestic legal acts, the rights of returned migrants are also addressed in a number of international conventions ratified by Albania.

Among the most important are:

- the International Covenant on Economic, Social and Cultural Rights (1966)
- the International Covenant on Civil and Political Rights (1966)
- the European Convention on Human Rights (1953)
- the United Nations Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (1990)
- the International Labour Organization Convention on Migration for Employment (1952)

In addition to the ratification of international conventions, one of the most successful initiatives is MARRI (Migration, Asylum, Refugees Regional Initiative), established in 2003, in which Albania participates together with regional countries such as:

- Bosnia and Herzegovina
- Montenegro
- North Macedonia
- Serbia
- Kosovo

Among other objectives, MARRI aims to promote cooperation in the field of migration and to support the integration of returning refugees.

3. The role of local government in the treatment of returned migrants

3.1 In addition to central government, local government units also play a highly significant role in addressing cases of returned migrants.

Initially, in 2010, the so-called “Migration Counters” (MCs) were established within Local Employment Offices. The role of these counters is to serve as an important local-level mechanism for collecting detailed data on returned Albanian citizens (Migration Profile, 2015). The presentation of returned migrants at these counters is voluntary; consequently, as will be further analysed in this study, this increases the level of difficulty in their identification. The functions of Migration Counters include, first and foremost, the interviewing of returned Albanian citizens. However, according to the legal framework, only those individuals who voluntarily present themselves at these counters may be interviewed.

Secondly, following the interview process, the needs of the returned individuals must be identified, after which they are provided with detailed information on both public and private services.

After receiving this comprehensive information, the returned individual should be referred to relevant public institutions, private service providers, as well as civil society organizations implementing projects related to the integration of returned migrants (Migration Profile, 2015). Overall, there are approximately 40 Migration Counters throughout the territory of Albania. These counters provide services not only to returned migrants—whether voluntary or forced—but also to:

- potential migrants (individuals who may emigrate in the future)
- immigrants

The implementation of these policies requires sustainable financing. It has been observed for several years that there is a need to establish appropriate financing mechanisms and more effective management practices, in order to ensure that services delivered across different levels of governance are properly coordinated (Extended National Migration Profile, 2015–2018).

3.2 Bilateral and multilateral agreements on the readmission of citizens

The implementation of these agreements is carried out through the coordination of activities between the Ministry of Foreign Affairs and the Ministry of Interior of the Republic of Albania. These agreements, commonly referred to as “readmission agreements,” are of crucial importance for establishing a comprehensive institutional framework for the management of cases of forced return. Albania signed a readmission agreement with the European Union in 2006, which remains in force: “Agreement on the readmission of persons residing without authorization.”

3.3. Legal framework on trafficking and its impact on the migration phenomenon

With regard to the assessment of trafficking indicators and the extent to which these are identified among returned Albanian or foreign migrant citizens, the legal framework has been significantly strengthened, particularly after 2018 with the adoption of Council of Ministers Decision No. 449, dated 29.08.2018 “On standard operating procedures for the protection of victims of trafficking and potential victims of trafficking.”

The identification of victims of trafficking and potential victims by border police has been implemented rigorously. It is observed that the number of such cases has remained relatively high during the period 2019–2022, specifically:

- 2019 → 103 identified cases of victims or potential victims of trafficking
- 2021 → 159 cases
- 2022 → 112 cases

Given that returned migrants constitute a vulnerable category with regard to trafficking, the following instruments must be applied rigorously in such cases:

- National Action Plan for the Fight against Trafficking in Persons (Council of Ministers Decision No. 670, dated 10.11.2021)
- Standard Operating Procedures (SOPs) (Council of Ministers Decision No. 499, dated 29.08.2018)

These instruments are essential for the proper identification and protection of victims of trafficking, including in cases involving returned migrants.

4. Legal framework for the equivalence of diplomas of returned migrants

With regard to the integration of returned Albanian migrant students who continue their pre-university education, the Ministry of Education plays a key role in issuing guidelines on how these cases should be managed.

Firstly, in this regard, the primary legal framework is Law No. 69/2012 “On the Pre-University Education System.” Article 11 of this law guarantees that children of the diaspora, both those residing abroad and those returning to Albania, are provided with support through special programs aimed at learning the Albanian language and becoming acquainted with Albanian cultural heritage.

Since 2010, the Ministry of Education has undertaken an intensive process by distributing brochures and informational materials at border crossing points and within Regional Education Directorates, regarding the rights and opportunities available to Albanian citizens returning from migration in the field of education (Migration Profile, 2015).

Furthermore, at the beginning of each school year, the Ministry of Education, through specific instructions, addresses Regional Education Directorates on how to manage cases of returned students.

Over the years, several instructions issued by the Ministry of Education have regulated in detail the procedures for the registration of returned students.

A. Instruction of the Ministry of Education No. 9242, dated 10.11.2015 “On the registration and treatment of students returning from migration”

This instruction primarily recommends that the registration of returned students be given priority and that educational institutions facilitate their integration to the greatest possible extent.] In addition, for each returned student, a “Special Work Plan” must be prepared by the Psycho-Social Service Unit within the Regional Education Directorate (RED), aimed at supporting the student’s personal, educational, and social development.\ Alongside this plan, which focuses on social integration, an “Individual Learning Plan” must also be developed, in order to compensate for missed coursework during the period of absence.

B. Instruction of the Ministry of Education No. 13, dated 30.06.2023 “On determining the criteria and procedures for the equivalence of certificates and diplomas of pre-university students arriving from abroad”

According to this instruction, the competence for recognition is divided between two institutions:

- Firstly, the Educational Services Center, which is responsible for the recognition of upper secondary school diplomas obtained abroad.
- Secondly, the Local Pre-University Education Offices, which are responsible for recognizing certificates of completion of basic education and determining the appropriate class placement of students within the pre-university education system.

Among the most important elements of this Instruction are the following:

a. Applications for the recognition of certificates are submitted online through the e-Albania portal. This innovation has significantly facilitated procedures, as not only is the official request for recognition submitted online, but all required documentation is also uploaded in PDF format via the same platform. The Instruction establishes a dual obligation, since, in addition to submitting the documentation electronically, applicants are also required to send the same documentation by post within five days.

b. In practice, prolonged delays are often observed, even when all documentation has been submitted in full. In several cases, delays have exceeded the 45-day period from the date of the online application. This deadline is defined by the Instruction as the maximum period within which the recognition and equivalence procedure must be completed. Such delays are sometimes also caused by late responses from the foreign institution that issued the certificate. This occurs because, under this sub-legal act, the Local Pre-University Education Office (LPUEO / ZVAP) is required, in every case, to contact the issuing foreign institution via email in order to confirm the authenticity of the certificate.

c. The Instruction introduces facilitation measures regarding the equivalence of grades between the Albanian and foreign education systems, as this equivalence is determined based on the annex attached to the Instruction.

d. In the recognition process, the Local Pre-University Education Office (ZVAP) holds a significant role, as it is the institution responsible for maintaining and administering the “Official Register for the Recognition and Equivalence of Certificates.”

e. The Instruction also provides flexibility in cases where a student does not possess documentation proving school attendance for the grade completed abroad. In such cases, the student may be assessed by a commission established by the school principal. The grade in which the student will be enrolled may be declared in writing by the parent, and following the evaluation of the request, the student will be placed in the grade approved by the school commission.

f. A problematic issue is the short timeframe within which the student must complete supplementary examinations.

Chapter III, point 11, stipulates that: “Where the student has completed more than half of the subjects in the curriculum of the grade in which he or she seeks to enroll, the student shall be enrolled in that grade and must take examinations in each subject not previously completed. These examinations must be taken within three days after approval for enrollment is granted.” This three-day deadline for completing all outstanding examinations is considered excessively short and limits the student’s ability to adequately prepare. A longer timeframe would be more reasonable and appropriate.

g. A positive element is that, in cases where deficiencies in the documentation are identified, the Local Education Office (ZVA) for basic education or the Educational Services Center (ESC / QSHA) for upper secondary education submits a second request for the completion of documentation, if such completion is not carried out within 30 days from the initial request. This provision allows the initial application not to be cancelled and prevents unnecessary extension of deadlines. Furthermore, the confirmation of authenticity by foreign educational institutions must be requested at least twice in cases where no response is received after the first request. Therefore, both the ZVA and the ESC are required to be persistent in their efforts to obtain the necessary information. If one year passes from the initial request for information and the foreign institution still has not provided a response, the review of the application is discontinued.

h. A significant concern relates to the actual level of proficiency in the Albanian language among returned migrant students. The Instruction provides a procedural facilitation by equating a subject completed by the student in a foreign country—reflecting the linguistic and literary knowledge of that country—with the subject “Albanian Language and Literature.”

However, it is our view that this provision should be revised. In all cases where the student has not completed the subject “Albanian Language and Literature,” they should be required to attend it within the Albanian education system. In order to ensure that returned students acquire fundamental knowledge of the Albanian language and literature, they should attend an additional course in this subject.

Although this requirement may initially appear as an additional burden for the student, in the long term it would significantly contribute to their academic success in completing secondary education, as well as to their further studies and employment opportunities in Albania. Moreover, serious engagement with the subject “Albanian Language and Literature” would contribute to reducing the number of functionally illiterate individuals in Albania.

4.1 Professional training of returned migrants

With regard to this issue, among the most important laws in this field are Law No. 15/2019 “On Employment Promotion” and Law No. 15/2017 “On Vocational Education and Training.” The Law “On Employment Promotion” classifies unemployed jobseekers who have returned from migration within the last two years as part of the category of “special groups.” These groups are entitled to enhanced attention from state institutions and public employment policies.

Employment services and active labour market programs are aimed at promoting their integration and social inclusion. In addition, they benefit from “specialized counselling” provided by local employment structures, offering services that are more comprehensive, accessible, and understandable for them (Law No. 15/2019, Article 10/2).

Furthermore, vocational training courses in which jobseekers participate are provided free of charge by institutions responsible for employment and skills development. In addition to free access to such courses, participants may also receive a financial allowance for their attendance, as well as reimbursement of travel expenses (Law No. 15/2019, Article 12/3).

Employment promotion programs have been continuously improved, particularly since 2018, with the adoption of:

- Council of Ministers Decision No. 162/2018
“On the payment for participation in vocational training courses.”

Under this decision, individuals participating in vocational training courses are supported with a payment amounting to 50% of the unemployment benefit. The aim of this measure is to facilitate their rapid reintegration into the labor market. This employment promotion program was implemented for a period of five years, until 2022.

Currently, following the adoption of the new legal framework—Law No. 15/2019 “On Employment Promotion” and Council of Ministers Decision No. 654, dated 05.10.2022 “On the procedures, criteria and rules for the implementation of vocational training programs through financial support”—the necessary legal basis has been established to ensure the continuation of this financial support.

4.2 Establishment of new institutions providing services to returned migrants in cooperation with foreign states

Since 2018, following the adoption of Law No. 59/2018 “On the ratification of the agreement between Albania and GIZ for the project ‘Migration Counseling in Albania’,” and until December 2024, the DIMAK (German Information Centre for Migration, Vocational Education and Career) operated in Albania.

For several years, this center provided significant support not only regarding opportunities for migration to Germany and other EU countries, but also for returned migrants in Albania who were seeking employment or were interested in initiating business activities. The center offered its counseling services free of charge and, by strictly applying the principles of good faith and

personal data protection, it managed to achieve a tangible impact on Albanian society. As of January 2025, all competencies of DIMAK have been transferred to the National Agency for Employment and Skills.

5. Establishment of social enterprises

Law No. 65/2016 “On Social Enterprises in the Republic of Albania” regulates the activity of social enterprises, which aim at: “The economic and social integration of vulnerable groups and individuals excluded from the labor market” (Law No. 65/2016, Article 2/ç).

Article 11 of this law provides a definition of vulnerable groups, referred to as “disadvantaged groups.” These are the groups that benefit from the establishment of social enterprises.

Among these groups, Article 11, point 2, also includes “displaced persons.” With regard to the interpretation of the term “displaced persons,” Council of Ministers Decision No. 56/2018 “On the determination of specific categories of disadvantaged groups” clarifies in point 2/e that these are: “Migrant workers who move or have moved within the country.”

The clarification of the concept of “displaced persons” through a sub-legal act was necessary. However, both in the Albanian and international legal framework, the term “displaced persons” is generally used to refer to: “Persons who are forced to leave the state of which they are nationals, or the place of their habitual residence, in order to avoid armed conflict, violence, human rights violations, or natural disasters.”

Therefore, it is our view that the explicit use of the term “returned migrants” in the above-mentioned law and in the respective Council of Ministers Decisions would be more comprehensive and more consistent with the overall Albanian legal framework, which recognizes “returned migrants” as a distinct category.

5.1 Housing programs in support of returned migrants

With regard to housing-related challenges, Albanian legislation has addressed this issue since 2004 through Law No. 9232/2004 “On Social Housing Programs for Residents of Urban Areas,” as well as through Law No. 22/2018 “On Social Housing,” both of which include the category of “returned migrants” as direct beneficiaries of social housing policies.

Moreover, the fact that an individual is classified as a “returned migrant, migrant worker, refugee, or person under complementary protection” (Law No. 22/2018, Article 16/c) is considered a social criterion that influences the prioritization of this category when local government units select beneficiaries for social housing programs, such as social housing units or rent bonus schemes.

In addition, returned migrants benefit from the “temporary shelter” program, which consists of easily assembled housing units designed to provide accommodation for a period of up to two years.

6. European Union legal framework regarding the protection of returned migrants

The return of migrants is a phenomenon of paramount importance within the European Union. Statistical data clearly demonstrates the increasing number of returned migrants over the years. In 2022 alone, approximately 143,000 third-country nationals were refused entry into the European Union at the border and subsequently returned to their countries of origin. Among them, the largest number were Ukrainian nationals (29,000), followed by Albanian nationals (16,000), and Russian nationals (12,000) (www.ec.europa.eu).

With regard to the legal policies pursued by the European Union concerning the return of migrants, the following points should be emphasized: First, the European Union has consistently aimed to implement a sustainable policy on migration and the return of migrants to their countries of origin. This policy applies not only to regular migrants but, in particular,

to irregular migrants. These migrants initially benefit from the protection provided by the principles enshrined in the Charter of Fundamental Rights of the European Union.

Secondly, the EU Directive on return, adopted in 2001, “On the mutual recognition of decisions on the expulsion of third-country nationals,” represents one of the key legal instruments establishing common standards and binding rules governing the procedures for returning third-country nationals to their countries of origin.

This Directive has been transposed into the national legislation of EU Member States and introduces the concept of a “voluntary return period,” during which migrants are given the opportunity to return voluntarily. Furthermore, Member States are required to eliminate the situation commonly referred to as “legal limbo,” meaning that they must either grant a legal status to migrants or ensure their return to the country of origin, thereby avoiding situations of legal uncertainty. According to this Directive, irregular migrants must be treated in a transparent, fair, and dignified manner.

In order to facilitate the reintegration process of irregular migrants in their countries of origin, the European Union has established a dedicated financial instrument known as the Asylum, Migration and Integration Fund (AMIF).

Thirdly, based on the above Directive, in 2004 the European Union adopted the “Common Basic Principles for Immigrant Integration Policy,” which aim to establish a unified approach across all EU Member States regarding the integration of third-country nationals residing within the European Union.

Fourthly, based on the 2001 Directive, in 2021 the European Commission adopted the Strategy “On Voluntary Return and Reintegration.”

This Strategy establishes, first and foremost, an obligation for EU Member States to provide migrants with up-to-date and accurate information, in order to facilitate their preparation for return and to ensure that appropriate support is offered for their reintegration in the country of origin. This process is referred to as “return counseling.”

Return counseling is provided at several stages:

- during the asylum procedure
- during the examination of the case
- following the decision on return
- during the physical return process

In addition, counselling is also provided upon the migrant’s arrival in the country of origin, as well as during the post-arrival phase. The migrant is assisted by a “return counselor,” who, prior to the migrant’s departure from the EU, prepares a “Reintegration Plan.” This plan must be tailored to the migrant’s specific circumstances, as well as to the social, economic, and cultural context of the country of origin. Among other aspects, the plan must include provisions for financial and technical support, enabling returned migrants to undertake income-generating activities in the country of return.

The Strategy places particular emphasis on two key phases:

- a) Counselling after arrival in the country of origin
- b) Counselling prior to the decision on departure from the EU

The Strategy also establishes obligations for countries of origin to implement counseling in two main stages:

1. Immediate support upon return

Immediate assistance must be provided to returned migrants as soon as they arrive in their country of origin. This can be ensured through the establishment of “Reception or Information Offices” at airports or border crossing points.

2. Long-term reintegration assistance

A broader reintegration support system must be provided across several areas, involving a long-term process of assistance in three main dimensions:

- economic support
- psychological support
- social and cultural support

Economic support initially includes technical assistance for the preparation of a preliminary plan for a profit-generating activity, even while the migrant is still in the host country. Upon arrival in the country of origin, this preliminary plan is further assessed by local officials responsible for implementing reintegration measures.

This process is followed by the development of a concrete business plan, in which the support of local NGOs (non-profit organizations) is considered essential. In addition, cultural, social, and psychological integration remains of particular importance, as returned migrants often face prejudice. This process can be facilitated through the provision of psychological counseling, as well as by actively supporting the continuous participation of returned migrants in local cultural and sporting events.

It should be emphasized that one of the most important tools enabling the practical implementation of the above-mentioned principles is RIAT (Reintegration Assistance Tool), an online network developed by the European Commission. The purpose of this tool is to ensure cooperation between institutions in EU Member States acting as host countries—responsible for the return process—and service providers in the migrant’s country of origin. RIAT is part of EMNIES (European Migration Network Information Exchange System), an electronic platform that enables the exchange of information and the development of digital mechanisms facilitating migration-related procedures. The European Commission aims for RIAT to serve as a digital tool in which personal data related to individual return cases are recorded, in order to support the provision of reintegration services, both in cases of voluntary return and forced return.

It should be noted, however, that RIAT does not enable the creation of a permanent database for the storage of personal data related to individual cases. In fact, the 2021 EU Strategy “On Voluntary Return and Reintegration” states that RIAT is: “A sophisticated information exchange tool that enables the secure exchange of encrypted personal data.” Subsequently, anonymized data are used to generate online statistics and detailed analytical information. This is achieved by assigning a unique identification code to each individual case file.

In addition, the European Commission has adopted two key action plans concerning specific measures to be followed in relation to migrants:

- the “Action Plan on Integration and Inclusion 2021–2027” (European Commission, 2020)
- the “Action Plan on the Integration of Third-Country Nationals” (European Commission, 2016)

Firstly, the 2016 Action Plan on the Integration of Third-Country Nationals addresses issues related to the integration of migrants, including refugees who are third-country nationals lawfully residing in the European Union.

This plan emphasizes that: “The successful integration of third-country nationals is a matter of common interest for all Member States” (European Commission, 2016, p. 2).

In addition to the above, cooperation agreements with non-EU countries—referred to as “readmission agreements”—constitute important legal instruments that enable the practical implementation of the principles established by the Return Directive.

In particular, the European Union signed, on 1 May 2006, the “Agreement on the readmission of persons residing without authorization” with Albania. This agreement not only facilitates cooperation between Albanian administrative institutions and those of the EU Member State where the irregular migrant resided, but also imposes an obligation on the EU Member State authorizing the return to follow strict procedures in compliance with the Return Directive.

With regard to the return of migrants, the European Union has promoted the establishment of new institutional mechanisms, such as the “Return Coordinator,” whose role is to create a network involving institutions of Member States as well as Frontex, with the aim of ensuring a more sustainable and efficient management of the return process. Frontex plays a decisive role in the return process, particularly in the context of voluntary return and reintegration. The establishment of the “Frontex Joint Reintegration Services” enables the creation of a common EU-level structure through which reintegration service providers can cooperate more effectively, as well as a framework within which return counselors can be trained (European Commission, Report on Migration and Asylum, 2023).

Overall, the above-mentioned legal framework, recently updated, serves as an important reference point that assists the Albanian legislator in continuing to gradually improve the domestic legal system. In particular, it contributes to strengthening the training and preparation of service providers in Albania, who are expected to cooperate with the Return Coordinator operating within EU Member States.

Conclusions

I. Due to the significance that the phenomena of emigration and immigration represent for Albania, the legal framework has been continuously subject to development and improvement. The objective has been to strengthen institutional capacities, ensure the effective protection of migrants’ rights, and promote the active participation of the Albanian state in international consultative processes in the field of migration.

II. The currently applicable law in Albania addressing the rights of returned migrants is Law No. 9668/2006 “On the migration of Albanian citizens for employment purposes.” Given that this law has been in force for nearly two decades, it requires further amendments and improvements, particularly to ensure the protection of the rights of Albanian migrants returning from abroad, regardless of the reasons for their return.

In recent years, the Albanian government itself has acknowledged that: “The implementation of this law remains problematic, highlighting the need for a new legal framework regulating migration and the return of Albanian citizens for employment purposes.”

III. A distinctive feature of the Albanian context is that, despite the high number of international conventions ratified in the field of migration, the level of their implementation and their concrete impact on migrants’ rights remains largely unclear.

IV. Through state policies, greater efforts should be made to increase the level of trust and confidence that returned migrants place in state institutions responsible for their reintegration, particularly in the key role played by Migration Counters. The significant decline in the number

of individuals registered and seeking assistance at these counters in recent years—from 550 individuals in 2019 to only 32 in 2022—indicates the need for more effective promotional and incentive-based policies. These measures should aim to encourage returned migrants to actively engage with the programs and services offered by these structures.

V. It is recommended that Law No. 111/2017 “On State-Guaranteed Legal Aid” be amended to explicitly include returned migrants registered with Local Employment Offices as beneficiaries of free legal aid, regardless of their income level, in a manner similar to the treatment provided to victims of violence or trafficking. Such support should be provided at least during the first one to two years following their return. The provision of state-funded free legal aid, combined with priority access to social housing schemes and participation in employment programs offered by Local Employment Offices, constitutes three of the most important protective mechanisms that effectively support returned migrants.

References

- Council of Ministers of the Republic of Albania. (2020). *Extended national migration profile 2015–2018* (Decision No. 222, dated February 12, 2020).
- European Commission. (2016). *Action plan on the integration of third-country nationals* (COM(2016) 377 final).
- European Commission. (2020). *Action plan on integration and inclusion* (COM(2020) 758 final).
- European Commission. (2021). *EU strategy on voluntary return and reintegration*.
- European Commission. (2023). *Report on migration and asylum* (C(2023) 219 final).
- European Commission, Joint Research Centre. (2020). *Youth and migration: An overview*. Publications Office of the European Union.
- European Website on Integration. (2023). *Bridging courses for migrants to complement qualifications acquired in third countries*.
- General Directorate for Border and Migration. (2015). *Migration profile*.
- International Organization for Migration. (2023). *Migration governance indicators*. International Organization for Migration.
- von der Leyen, U. (2019). *Mission letter to Mariya Gabriel, Commissioner-designate for Innovation and Youth*. European Commission.

IMPRISONED AND PRE-DETAINEES MINORS IN ALBANIA AND THEIR RIGHT TO HEALTH CARE: LEGAL FRAMEWORK AND PRACTICAL CHALLENGES

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Abstract

This article will provide an analysis of Albanian legislation regarding the respect of the right of imprisoned and pre-detainees minors to health care within the respective institutions in which they serve their sentence. In accordance with the Convention on the Rights of the Child, the deprivation of liberty of a minor should be a measure of last resort and for the shortest possible time. Despite the orientation towards alternative measures, in practice there are cases of imprisonment of minors, raising important issues on the standards of treatment and protection of their health. The main purpose of this article is the health treatment of imprisoned minors, being considered one of the main indicators of respect for human rights in a democratic state. The health treatment of imprisoned minors is analysed, in order to provide an overview of the practice of the responsible institutions in Albania. Following the adoption of the Juvenile Criminal Justice Code, the juvenile justice system has undergone profound reform, emphasizing rehabilitation and reintegration over punishment. However, ensuring effective health care, especially the treatment and preservation of mental health, remains a structural challenge. This article analyses the legal framework, international standards and institutional practice regarding health care for juveniles deprived of their liberty in Albania. An important part of this article is also the relies on the analysis of institutional documents and reports related to the conditions of treatment of minors in prisons. Reports from monitoring institutions such as the People's Advocate or the Albanian Helsinki Committee will be reviewed. The article will also include recommendations that mainly relate to the elements that most need improvement in the way healthcare is provided and guaranteed to minors in prison.

Keywords: Minors, Imprisoned, Pre-Detainees, Rights, Law, Health

Introduction

The family serves as the basis of society and plays a very important role in the growth and well-being of all its members, but especially children. They need and should receive all the protection and support of the family, society and state institutions. In order to achieve a full and harmonious development of the child's personality, he should grow up in a family

environment surrounded by an atmosphere of understanding, happiness and love. In this way the child will be prepared for an individual life in society, guided by the spirit of peace, freedom, equality, tolerance and dignity.

The Declaration of the Rights of the Child states that: “*The child, by reason of his physical and intellectual immaturity, needs special safeguards and care, including appropriate legal protection, both before and after birth*”.

The People's Advocate in Albania enables regular monitoring of the treatment of juveniles deprived of their liberty, particularly at the Kavaja Institute. The main focus is on rehabilitation, education and respect for their rights, mainly with regard to the 14-18 age group. Based on these monitoring reports, the submitted requests for improvement of conditions, psychological support and the use of detention only as a last resort.

Imprisoned and pre-detainees are considered as one of the special categories of the Albanian society. Imprisoned and detainees legally enjoy a range of rights and have also the right to insist on their realization in practice. It is a bit difficult for our society to conceive that people who have committed a crime have rights. This is the moment when the primary problem of respecting and enforcing their rights arises. We must emphasize that even those sentenced to imprisonment are human beings and in spite of everything, as well as other categories of our society also have the right to enjoy the rights to enjoy them. Such a finding seems difficult to accept, especially when prisoners or pre-detainees may be minors in conflict with the law. But even in the case of minors who have committed criminal offenses, society has not always shown support for them, judging them for their actions. However, the Convention on the Rights of the Child has defined in its article 3, the obligations of the states parties when dealing with minors, the importance of their treatment and the role of state institutions.

1. *In all actions concerning children, whether undertaken by public or private social welfare institutions, courts of law, administrative authorities or legislative bodies, the best interests of the child shall be a primary consideration.*
2. *States Parties undertake to ensure the child such protection and care as is necessary for his or her well-being, taking into account the rights and duties of his or her parents, legal guardians, or other individuals legally responsible for him or her, and, to this end, shall take all appropriate legislative and administrative measures.*
3. *States Parties shall ensure that the institutions, services and facilities responsible for the care or protection of children shall conform with the standards established by competent authorities, particularly in the areas of safety, health, in the number and suitability of their staff, as well as competent supervision.*³⁷

Health right as part of human rights

Talking and analysing the right to health care and the right to health means analysing two of the most fundamental rights of every member of society. We must first analyse what we mean by health, as one of the most important elements of every individual's life. For this reason, we must first emphasize the basic definitions analysed by national and international documentation. Initially the term health was related and explained mainly in a purely biological aspect, mostly related to the physical and functional integrity of the body and mind. However, we have to agree that this is an already outdated explanation, as having good health was linked to a lack of disease.³⁸ For this reason we can say that his notion, now more than ever, fits into

³⁷ Convention on the Rights of the Child, art.3.

³⁸ www.giappichelli.it/media/catalog/product/excerpt/9788834879412.pdf. pg. 18.

a context that goes beyond the simple absence of a state of illness or weakness and it is more about financial needs.³⁹

Respect for human rights should not be seen simply as a necessity for health, but as a way of enjoying and living a dignified life. Despite the historical development of some countries and specifically Albania, we can say that some rights can be suspended, but they can never disappear and cease to exist. This is because some rights are directly related to the fact of being human beings and we enjoy them precisely for this purpose. Being constitutionalized does not show the validity of human rights.⁴⁰ We must always keep in mind that the basis of the right to receive health treatment or health care is the right to be treated with dignity at all times, regardless of individual decisions.⁴¹

Recognition of basic human rights enabled patients' rights to get into another dimension, enabling them to be recognized and respected by the state and by every member of the medical staff.⁴² The restriction of rights can be done only on the basis of legal provisions and the state has the basic obligation to respect and guarantee the effectiveness of these rights.⁴³ The right to receive health care is a right in itself, a right we enjoy because we are human beings. However the guarantee of this right is directly bound to the guarantee and the respect of other rights related to it. Therefore, it is necessary to pay attention to these rights, because all rights are in some way closely related to each other and noncompliance with even one of them will lead to the violation of other rights.

"The life of the person is protected by law".⁴⁴

This provision directly expresses the protection of human life. The concept of human life and dignity is presented in the provisions of the Constitution as having a very important value. They are exactly what are considered to be the source, from which all other rights derive. Man and his life are considered the highest values for the state. The right to life lies in the foundations of every other right. For the reasons, the denial of this right would therefore lead to disrespect or elimination of other human rights. The life of every human being is a value above any other value protected by the Constitution.

We must say, however, that the right to life is not an absolute right. This is set out in the European Convention on Human Rights. Specifically:

1. *Every human right to life is protected by law. No one shall be arbitrarily deprived of his life except in the case of a death sentence following a sentence for a crime for which the sentence is provided by law.*
2. *Taking of life shall not be considered to have been caused in contravention to this article in cases where it results from the use of force, which is no more than absolutely necessary:*

³⁹ Gloria Mancini Palamoni: "L'evoluzione del diritto alla salute: riflessi giurisprudenziali ed organizzativi", pg. 3.

⁴⁰ Biba. D. "Të drejtat e njeriut dhe konstitucionalizmi-një perspektivë shqiptare". Tiranë, Shkurt 2017, pg.171.

⁴¹ Giovanni Maria Flick: "La salute nella Costituzione Italiana: un diritto di ciascuno, un interesse di tutti", pg. 6.

⁴² Universal Declaration of Human Rights.

Article 25: Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

⁴³ Universal Declaration of Human Rights.

Article 30: Nothing in this Declaration may be interpreted as implying for any State, group or person any right to engage in any activity or to perform any act aimed at the destruction of any of the rights and freedoms set forth herein.

⁴⁴ Constitution of the Republic of Albania, Article 21.

- a) *in protection of any person from unlawful violence;*
- b) *to commit a lawful arrest or to prevent the escape of a person lawfully deprived of his liberty;*
- c) *to oppose, in accordance with the law, a riot or an uprising.*⁴⁵

Since the Constitution of the Republic of Albania is based on this Convention, in its Article 17 it is determined:

1. *Restrictions on the rights and freedoms provided in this Constitution may be established only by law for a public interest or for the protection of other's rights. The restriction must be in proportion to the situation which has dictated it.*
2. *These restrictions may not infringe the essence of the freedoms and rights and in no case may they exceed the restrictions determined in the European Convention on Human Rights.*⁴⁶

Every individual at some point in his life faces the need for physician's assistance. The involvement of health professionals in any case is done because each individual aims to have good health. Medical legislation is a relatively new legislation, which was created as a necessity due to the fairly rapid developments in the field of technology and medical science. The problem lies in the fact that while technology and science have advanced by astonishing steps, laws have in fact have lagged behind in this area, a situation which creates a kind of undesirable uncertainty.

Right to health care of imprisoned and pre-detainees

By health we mean a state of complete physical, mental and social well-being and not just the absence of disease or being unable.⁴⁷ The right to enjoy health is a legal instrument for which governments and the international community are responsible. The existence of this right can and should be used as a constructive tool to provide the best care for individuals, communities and the population.

As we said above, the right to health care constitutes one of the fundamental human rights, clearly sanctioned by the Constitution and considered an integral part of the social objectives of the state. The realization and respect of this right is closely linked to the health, life and quality of life of every individual in society. This right is part of positive rights and as such, its implementation requires direct interventions through legal, financial, organizational and administrative measures taken by the state.

Health is affected by a series of social, economic and political factors. As a result, state measures to guarantee it are diverse and extend to different areas of social life. However, the common element of these measures is their direct impact on the health well-being of every individual.

One of the prisoners basic rights is the right to health care. To enable such a thing, a new structure of health staff in prisons and the provision of health care have been made by the state bodies.⁴⁸ On average, a penal institution has in its structure a general practitioner, a dentist, a pharmacist and four nurses. Imprisoners and pre-detainees undergo health examinations upon

⁴⁵ European Convention on Human Rights, Article 2.

⁴⁶ Constitution of the Republic of Albania, Article 17.

⁴⁷ Definition of the World Health Organization.

⁴⁸ Gaetano Dammacco: “Diritto alla salute e tutela della persona umana”. *Polski Rocznik Praw Człowieka i Prawa Humanitarnego* 1, 245-256, 2010, pg. 251.

arrival at the institution. Then, they are provided with the Medical and Dental Card, which determines the treatment they should follow and provides them with specialized medical assistance at the place of serving the sentence. The unification of health documentation throughout the system has also been realized.

The administration of the institution provides the conditions, means and personnel for the protection of the health of the prisoners. Medical service is provided throughout the stay in the institution, regardless of the requests of the prisoners. The medical staff has the duty to identify and notify immediately of diseases that require specialized treatment. The organization and realization of the health service is done by the administration of the institution in cooperation with the prison hospital and with the state organs, competent of health.

The health service in prisons should provide diagnosis and treatment of diseases with medication. Complaints related to the quality of health care continue to be numerous in number. We judge that the high overcrowding has made the prison administration not to respond in timely and quality manner to the requests of prisoners for medical treatment. Also, in some IECD it has been found that there is a lack of a physician, despite the fact that the staff is expected to provide medical services, as this job is not popular. Some physicians who start their duties in the IECD, after some time resign.⁴⁹

The European Court of Human Rights has interpreted in its jurisprudence that: *“People under the supervision of police/prison organs have a vulnerable position and the authorities have an obligation to be held accountable for their treatment.”* Consequently, when a person who is taken into care in good health and then dies, it is the duty of the state to provide explanations for the circumstances that led to his death”.

Prisoners may request to be visited at their own expense by another physician.

Every institution should have a pharmaceutical health service that responds to the needs for prevention and protection of the health of convicts. For diseases that can not be treated, treatment can not be guaranteed in the conditions of the institution, the sick prisoner is transferred to the prison hospital or when necessary to health institutions outside the prison service necessary to health institutions outside the prison service.

The Albanian Helsinki Committee has found that due to the overcrowding in the civilian hospital, interventions for convicts in the Prison Hospital Center were postponed or delayed because the public hospitals give priority to their patients. We believe that the Prison Hospital Center should be further strengthened with doctors of different specialties because of the variety of diseases from which the convicts suffer.

There are also findings of cases where prisoners' rights to health treatment have not been clarified and respected.

In the detention facilities monitored by the AHC, the health care for detainees left much to be desired. In most of the detention rooms, the health service was not provided according to the legal provisions. A serious problem remained the lack of medicines and the necessary material base. In some places of detention, basic medicines were missing. In some of the monitored police stations, drugs that had expired were found.⁵⁰

Right to health care of minors imprisoned and pre-detainees

In international law, it is defined that the term minor means any human being under the age of 18, except in certain situations where adulthood is reached earlier.

minors who are detained enjoy all the rights and guarantees that are determined by a series of rules that deal with the specific treatment that should be given to persons deprived of their

⁴⁹ Annual report "On the activity of the Institution of the Public Advocate in Albania", 2016, pg. 38.

⁵⁰ Respect for the rights of persons in detention and prisons, published by the Albanian Helsinki Committee, pg. 19.

liberty. Minors deprived of their liberty have the right to facilities and services that meet all the requirements of health and human dignity.⁵¹

On the other hand, minors sentenced to imprisonment, taking into account their age, enjoy some more rights than adult prisoners. The age at which they are located requires special care. This would guarantee that these minors, at the time of the end of their sentence, are considered re-educated and reintegrated into society. Just like adult prisoners, minor prisoners have the right and must be treated humanely, with respect and human dignity. Persons at this age have special needs and therefore have the right to request the fulfillment of these needs from the relevant institutions.

Children who experience deprivation of liberty are distinguished by a high prevalence of complex, co-occurring health needs that necessitate coordinated, high-quality healthcare. Emerging evidence of very poor health outcomes after deprivation of liberty suggests that in addition to ongoing efforts to prevent detention, more should be done to improve the health of these children, both in detention and after they return to the community. Setting and implementing minimum standards for healthcare in detention can help to drive improvements in the quality of care, and thereby improve health outcomes for children who experience deprivation of liberty.⁵²

The adoption of the Juvenile Criminal Justice Code (JCJC) has been an important development in Albanian legislation regarding the protection of the legal rights of minors. This Code harmonizes the best international standards applicable to minors in conflict with the law. It provides for a series of norms regulating the position of minors and has provided for specific rules and procedures necessary for the treatment of this vulnerable category. This Code aims to regulate aspects of the criminal responsibility of children who commit criminal offenses. The provisions of national and international legislation also mention the increased need for health care for imprisoned or pre-detainees minors. Specifically, they provide:

According to Convention on the Rights of the Child:

States Parties shall ensure that:

- a) No child shall be subjected to torture or other cruel, inhuman or degrading treatment or punishment. Neither capital punishment nor life imprisonment without possibility of release shall be imposed for offences committed by persons below eighteen years of age;*
- b) No child shall be deprived of his or her liberty unlawfully or arbitrarily. The arrest, detention or imprisonment of a child shall be in conformity with the law and shall be used only as a measure of last resort and for the shortest appropriate period of time;*
- c) Every child deprived of liberty shall be treated with humanity and respect for the inherent dignity of the human person, and in a manner which takes into account the needs of persons of his or her age. In particular, every child deprived of liberty shall be separated from adults unless it is considered in the child's best interest not to do so and shall have the right to maintain contact with his or her family through correspondence and visits, save in exceptional circumstances;*
- d) Every child deprived of his or her liberty shall have the right to prompt access to legal and other appropriate assistance, as well as the right to challenge the legality of the deprivation*

⁵¹ United Nations Rules for the Protection of Juveniles Deprived of Their Liberty Adopted by the General Assembly by resolution 45/113, dated 14 December 1990. 31-32.

⁵² https://www.mcrc.edu.au/images/research/research-areas/population_health/Justice%20Health/Ensuring%20the%20highest%20attainable%20standard%20of%20health%20for%20children%20deprived%20of%20their%20liberty.pdf

*of his or her liberty before a court or other competent, independent and impartial authority, and to a prompt decision on any such action.*⁵³

While the Criminal Justice for Children Code in Albania provides:

Mandatory participation of a psychologist

1. *At every stage of criminal proceedings with minors in conflict with the law, as well as during the questioning of the minor victim or witness, regardless of age over or under 14 years, the presence of a psychologist is mandatory.*
2. *The psychologist guarantees, as appropriate, psychological support for the minor and evaluates his statements, in accordance with mental development.*
3. *The presence of a psychologist aims to ensure that the minor in conflict with the law, the minor victim and/or witness is questioned in the appropriate manner and to facilitate his giving of testimony, taking care to eliminate the intimidation or shyness of the minor from the process.*
4. *The competent authorities, as appropriate and if possible, take care to ensure the presence of the same psychologist throughout the criminal justice process for minors and only if this is in the best interest of the minor.*
5. *The psychologist, who performs the role of emotional support for the child during the investigation and trial process, cannot be appointed by the court to take on the role of expert, preparing a psychological assessment for the same minor.*⁵⁴

Also, articles 75 and 115 of this Code specifically provide for the rules that must be followed by institutions in order to avoid violations of the rights of minors. Specifically:

Conditions of minors in pre-trial detention facilities

1. *A minor in pre-trial detention facilities enjoys all the rights enjoyed by a minor sentenced to imprisonment.*
2. *A minor in pre-trial detention is placed in separate facilities from adults.*
3. *Minors are placed in facilities separated from each other by gender.*
4. *During the time that the minor is held in pre-trial detention, as needed and in accordance with age, gender and personality, he/she is offered social, educational, psychological, medical and physical assistance.*⁵⁵

Health care and treatment of minors:

1. *Pre-detainees/convicted minors shall be provided with medical care and treatment, including, but not limited to: a) psychiatric/psychological and mental health services; b) drug and alcohol rehabilitation services; c) dental and eye (ophthalmological) care; d) sexual and reproductive health services; d) HIV/AIDS treatment; d) prenatal services in the case of pregnant girls; and e) regular medical check-ups, including, where appropriate, gynecological check-ups; e) care for the detection of any other condition that may hinder the integration of the minor into society.*
2. *Every detention or pre-detention facility for minors shall have immediate access to appropriate medical facilities and equipment in proportion to the number and needs of the prisoners and its staff trained in preventive health care and the treatment of medical emergencies.*
3. *If the required health care cannot be provided within the pre-trial detention/imprisonment institution, the minor has the right to obtain permission and, in case of emergency, to be*

⁵³ Convention on the Rights of the Child, art.37.

⁵⁴ Ligj Nr. 37/2017 “Kodi i Drejtësisë Penale për të Mitur”, art.18.

⁵⁵ Ligj Nr. 37/2017 “Kodi i Drejtësisë Penale për të Mitur”, art. 75.

granted permission to undergo a medical examination and receive the necessary health treatment.

4. *Any minor who is ill or complains of illness or who shows symptoms of physical or mental difficulties shall be examined/visited immediately by a doctor.*
5. *The consent of the minor shall be obtained for any medical treatment after informing him/her thereof.*
6. *When the life of the minor may be in danger or the minor may suffer permanent damage to his/her health and when he/she refuses to give consent to medical treatment, such consent shall be obtained from the minor's parents or legal representative and, in their absence, from the court.*
7. *When the doctor decides that immediate treatment is necessary to protect the health or life of the minor and/or the health of others, the treatment shall begin without obtaining the consent of the minor's parent or legal representative.*
8. *The minor shall be examined and treated by a doctor of the same gender or of the gender chosen by him/her.*
9. *Any period of medical treatment shall be calculated as part of the period of the minor's sentence.*
10. *When the medical examination establishes that the minor has suffered physical or sexual abuse before placement or during his/her stay in the Institution for the Execution of Criminal Decisions for Minors, the doctor shall immediately notify the competent prosecutor's office. Following this notification, the prosecutor's office shall take immediate measures to provide the minor with free legal advice to support any claim.*
11. *The medical report and treatment data shall be recorded and kept in the minor's personal file. Such data shall be transferred to any other Institution for the Execution of Criminal Decisions where the minor may be placed.⁵⁶*

The United Nations Rules for the Protection of Juveniles Deprived of their Liberty have made some very important findings and predictions regarding the right to health care for imprisoned and detained juveniles.

- Every minor shall receive appropriate health care, both preventive and curative, including dental, ophthalmological and mental health care, as well as pharmaceutical products and special diets as prescribed by a physician. All such health care shall, whenever possible, be provided to juveniles through appropriate health institutions and services of the community in which the institution in which they are detained is located, with a view to preventing the stigmatization of juveniles and promoting their self-respect and integration into the community.
- A physician shall examine the juvenile immediately upon his admission to the institution in which he is detained, with a view to recording any evidence of previous ill-treatment and identifying any physical or mental condition requiring medical attention.
- Medical services provided to the juvenile shall be aimed at the detection and treatment of any physical or mental illness, substance abuse or any other condition which may hinder the integration of the juvenile into society.
- Any minor who is ill, complains of illness or shows symptoms of physical or mental distress must be examined immediately by a doctor.

⁵⁶ Ligj Nr. 37/2017 “Kodi i Drejtësisë Penale për të Mitur”, art. 115.

- A minor suffering from a mental illness must be treated in a specialized institution under independent medical supervision.⁵⁷

Minors in conflict with the law may also be minors who have been users of various drugs. For this reason, centers where minors are held should have specialized drug prevention and rehabilitation programs, administered by qualified personnel. These programs should be adapted to the age, sex and other needs of the minors in question, and detoxification facilities and services with qualified personnel should be available for minors with drug or alcohol addiction. Medication should be administered only for medically necessary treatment and, whenever possible, after obtaining the informed consent of the minor in question. The administration of any medication should be authorized and always carried out by qualified medical personnel.

On the other side, the People's Advocate also plays a very important role in identifying various problems in respecting the rights of prisoners and detainees.

During 2024, 151 cases (complaints and cases on initiative) were administered and treated by prisoners and their families, for which the procedures for their review were carried out within the framework of administrative investigations. One problem identified had to do with the lack of health treatment.⁵⁸

Among the recommendations of the People's Advocate, was the adoption of the necessary measures for the training of judicial police officers, employees of the Tirana Local Police Directorate and the police stations under its jurisdiction, with the aim of recognizing the rights and procedural guarantees of minors in conflict with the law, victims and/or witnesses of criminal offenses, as provided for in the provisions of the Criminal Justice for Children Code. This recommendation came as a result of a complaint where the minor was questioned without the presence of a psychologist.⁵⁹

Conclusions

It would be more reasonable for doctors serving in prisons not to depend on the Ministry of Justice, as before, but on the Ministry of Health, like all their other colleagues. This creates opportunities for their qualification and for a better service to prisoners.

In institutions of considerable size and having the service of one or more doctors who devote their entire time to this task, at least one of them should reside in the prison building or nearby. In institutions of smaller capacity, the doctor should make daily visits and reside sufficiently close to be able to intervene without delay in the event of an emergency.

Despite the continuous recommendations from the People's Advocate, regarding the improvement of the provision of health care in the Institutions for the Execution of Criminal Decisions, a number of problems are repeatedly reported. These problems occur at serious levels, thus dictating the provision of inadequate and inaccurate health care.

References

- Avokati i Popullit. (2024). *Raporti vjetor 2024*.
Biba, D. (2017). *Të drejtat e njeriut dhe konstitucionalizmi: Një perspektivë shqiptare*. Tiranë, Shqipëri.
Constitution of the Republic of Albania.

⁵⁷ United Nations Rules for the Protection of Juveniles Deprived of Their Liberty Adopted by the General Assembly by resolution 45/113, dated 14 December 1990. 49-55.

⁵⁸ Avokati i Popullit. Raporti vjetor 2024. Fq.43.

⁵⁹ Avokati i Popullit. Raporti vjetor 2024. Fq. 56.

- Dammacco, G. (2010). Diritto alla salute e tutela della persona umana. *Polski Rocznik Praw Człowieka i Prawa Humanitarne*, 1, 245–256.
- Flick, G. M. (n.d.). *La salute nella Costituzione Italiana: Un diritto di ciascuno, un interesse di tutti*.
- Mancini Palamoni, G. (n.d.). *L'evoluzione del diritto alla salute: Riflessi giurisprudenziali ed organizzativi*.
- People's Advocate Institution. (2016). *Annual report on the activity of the Institution of the Public Advocate in Albania 2016*.
- Republic of Albania. (2017). *Law No. 37/2017: Juvenile Criminal Justice Code*.
- Respect for the rights of persons in detention and prisons. (n.d.). Albanian Helsinki Committee.
- United Nations. (1989). *Convention on the Rights of the Child*.
- United Nations. (1990). *United Nations Rules for the Protection of Juveniles Deprived of Their Liberty* (General Assembly Resolution 45/113, 14 December 1990).
- www.giappichelli.it/media/catalog/product/excerpt/9788834879412.pdf.
- <https://www.mcrid.edu.au/images/research/research-areas/population%20health/Justice%20Health/Ensuring%20the%20highest%20attainable%20standard%20of%20health%20for%20children%20deprived%20of%20their%20liberty.pdf>

HUMAN RESOURCE MOTIVATION AND SUSTAINABLE BUSINESS GROWTH IN THE CONTEXT OF DIGITAL INNOVATION AND MARKET DYNAMICS

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Abstract

In the contemporary business environment, characterized by rapid technological developments and increasing market competition, human resource motivation is considered a key factor in achieving sustainable business growth and strengthening organizational competitiveness. The processes of digital innovation and the continuous transformation of markets require organizations to adopt effective management strategies that focus not only on technological advancement but also on the development and motivation of human capital. In this context, motivated employees contribute to increased productivity, improved organizational performance, and the ability of enterprises to adapt to market changes.

This study analyses the relationship between human resource motivation and sustainable business growth in the context of digital innovation and market dynamics. Motivated employees tend to demonstrate higher levels of engagement, creativity, and willingness to adopt new technologies, thereby contributing to digital transformation and the development of the organization's innovative capacities. At the same time, organizations that implement effective motivational policies, such as fair compensation systems, opportunities for professional development, and supportive work environments, achieve higher levels of stability and performance in competitive markets.

In conclusion, the study highlights that the integration of human resource motivation with digital innovation and adaptive organizational strategies represents a key element for achieving sustainable growth and addressing the challenges of dynamic market environments.

Keywords: Human Resource Motivation, Sustainable Business Growth, Digital Innovation

1. Introduction

In the contemporary business environment, which is characterized by high economic volatility, rapid technological developments and increasingly aggressive global competition, human resource management has undergone a paradigmatic transformation. Human resource motivation is no longer considered simply as an administrative function of the personnel department, but has become one of the basic and most important managerial pillars within the framework of modern management quality. This change comes as a result of the fact that in today's knowledge-based economy, competitive advantage no longer stems only from physical assets or financial capital, but from the organization's ability to engage, inspire and retain its talents (Stefanov & Peycheva, 2018).

This paper undertakes to examine the complex relationship between human resource motivation and sustainable organizational growth at a time when markets are rapidly transformed by digitalization. While technology provides the tools for progress, it is people who determine the speed and quality of their adoption. In the Balkan region, and specifically in Albania and Bulgaria, SMEs face specific challenges related to limited resources and the need for a qualitative leap towards the digital economy.

This research addresses the issue that many digital transformation initiatives fail not because of a lack of software or hardware, but because of human resistance and a lack of emotional engagement on the part of employees. Therefore, the research question posed is: How can genuine human resource motivation serve as an effective catalyst for the adoption of digital innovation in Balkan SMEs?

For answering this question, the paper analyses market dynamics and their impact on organizational behaviour. Through a quantitative comparative analysis, this study seeks to document how a motivated workforce not only embraces change, but becomes the engine of innovation itself, thus ensuring growth that is not only profitable in the short term, but sustainable and adaptive in the long term.

Through this comparative analysis, the paper seeks to highlight the differences between the managerial cultures in Albania and Bulgaria, offering a new perspective on the best practices of human resource management. The results of this study are expected to serve as a guide for business leaders and policymakers, emphasizing that investing in people is the only sure path to sustainable growth and successful innovation.

2. Literature Review

Unlike traditional management based on simple job descriptions, the modern approach focuses on competencies. Competence is defined as a combination of knowledge, skills, and attitudes that result in successful performance.

In SMEs aiming for sustainable growth, this approach becomes vital as it allows employees to easily move from one task to another in a constantly changing digital environment. When an organization invests in employees' competencies, it automatically meets their needs for recognition and status, providing objective criteria for evaluating performance.

3. Methodology

The research was conducted during the period 2021-2023. The target population consists of managers and employees operating in SMEs in the manufacturing sector. Due to time constraints and those caused by the dynamics of online work (especially after the pandemic period), purposive and available sampling was used. 10 companies were selected for analysis: 5 in Bulgaria and 5 in Albania.

4. Results and Discussion

Data analysis provides a clear picture of the current state of human resource management and the impact of motivation on organizational development.

Based on the information presented in the diagram, it can be said that 95.9% of the individuals surveyed in Bulgaria show a high level of this indicator. In second place behind them are middle-level managers, representing 3.4%. Only 0.7% or one respondent is a manager with a result that is classified in the low category.

Figure 4. 1. Visual distribution of employees of enterprises from Bulgaria on self-improvement, development

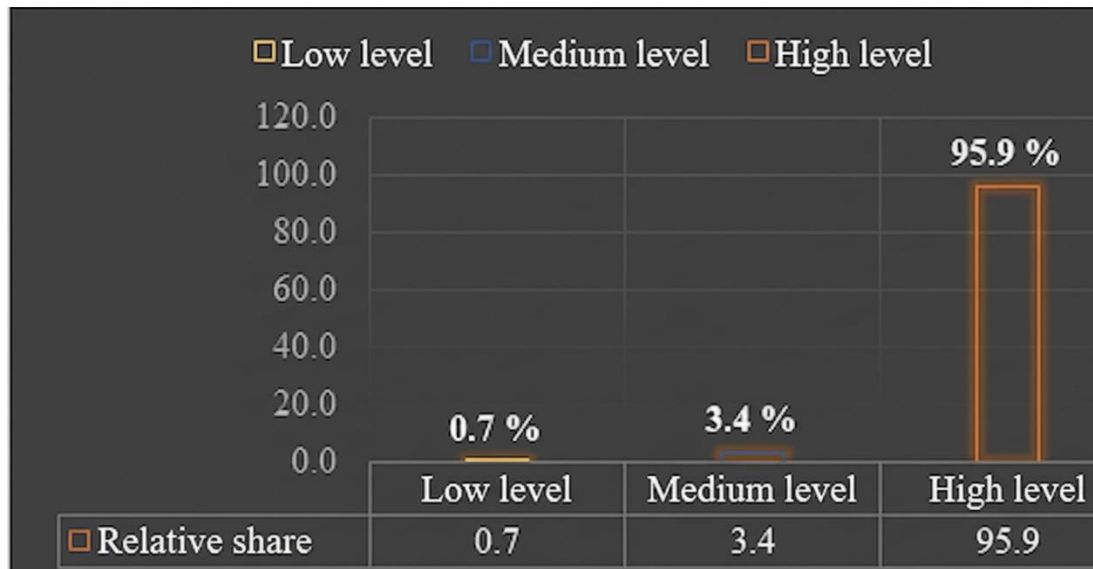
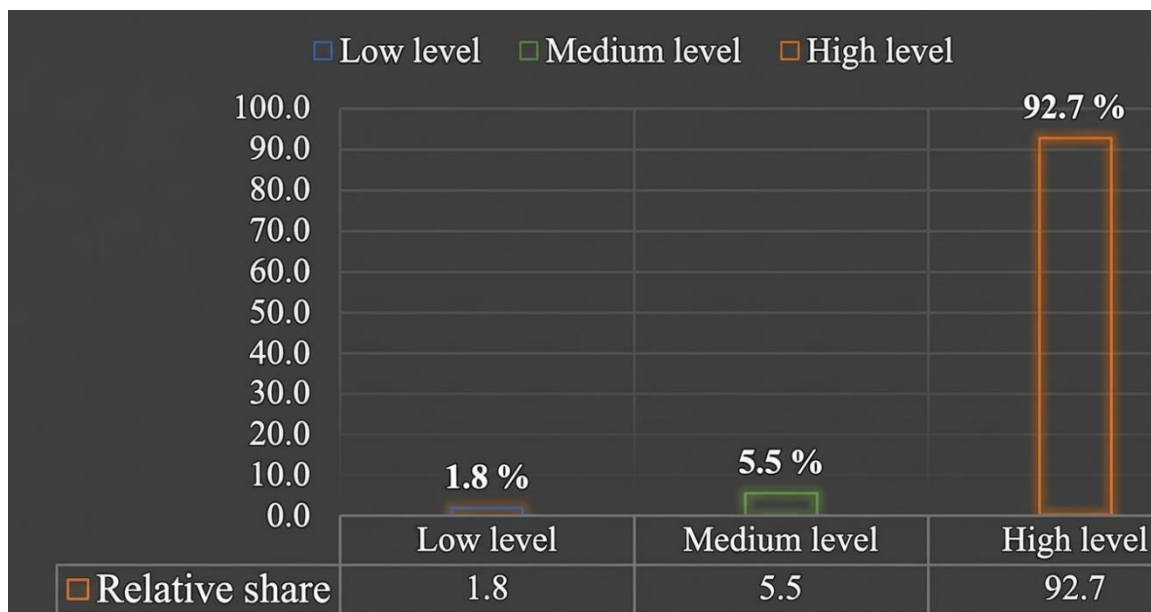


Figure 4. 2. Visual distribution of employees of enterprises from Albania with self-improvement, development



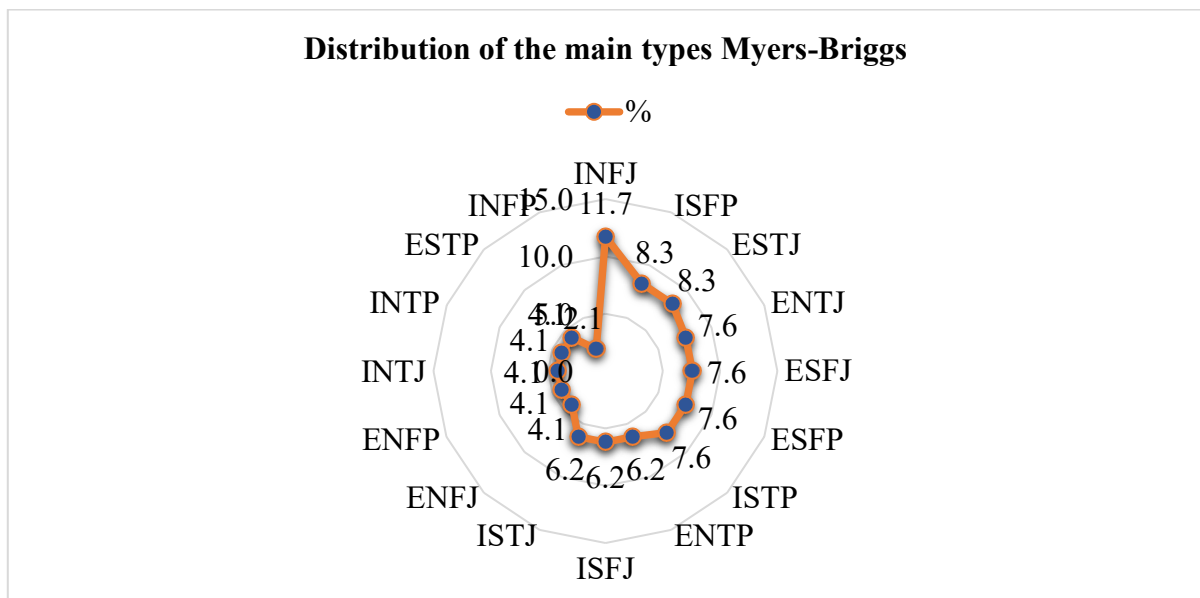
Based on the information presented in the diagram in Figure 1, it can be said that 92.7% of the individuals surveyed in Albania demonstrate a high level of this indicator. In second place behind them are managers with a medium level, representing 5.5% or 6 people. Only 1.8% or two respondents turn out to be managers with a result that is classified as a low level.

It can be claimed that 95.9% or 139 of the respondents in Bulgaria show a high level on this indicator. In second place after them are middle-level managers, representing 3.4% or 5 people. Only 0.7% or one respondent is a manager with a score that is classified in the low category. Furthermore, 92.7% or 101 of respondents in Albania demonstrate a high level of this indicator. In second place after them are middle-level managers, representing 5.5% or 6 people. Only 1.8% or two respondents are found to be managers with a score that is classified as low.

Table 4. 1 Self-improvement, development

MAIN BASIC ASPECTS OF MOTIVATION	NUMBER	RELATIVE SECTION	NUMBER	RELATIVE SECTION
Low level	1	0,7%	2	1,8%
Average	5	3,4%	6	5,5%
High level	139	95,9%	101	92,7%
		BULGARIA	ALBANIA	

Figure 4.3 Visual distribution of employees of enterprises from Albania with self-improvement, development



In both countries, the most common type of manager is INFJ. It is characterized by perseverance, original ideas and caring for others.

A comparative analysis of the distribution of the main types of managers in companies from Bulgaria and Albania reveals some important similarities and differences:

In Bulgaria and Albania, the INFJ type is the most common among managers, but in Albania it has a higher percentage - 12.8% compared to 11.7% in Bulgaria.

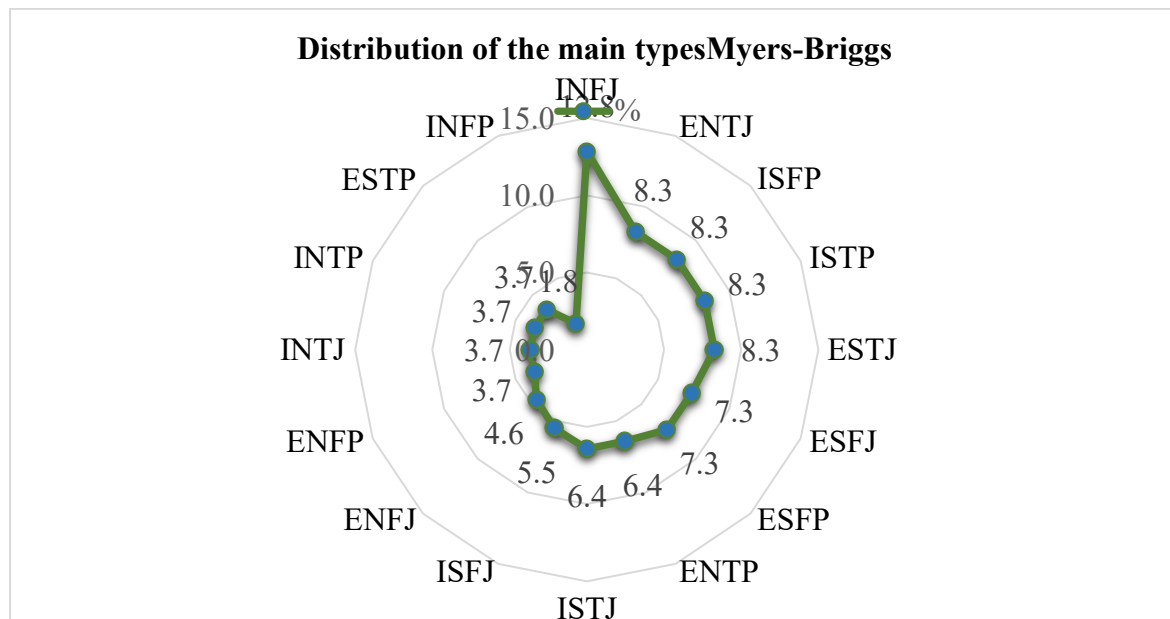
The INFP type is less prevalent in both Bulgaria and Albania, with lower results in Albania – 1.8%.

This analysis shows that diversity in the main types among managers is important and can have an impact on leadership and management in both countries. This diversity can be important in designing management strategies and managing work environments with different personality types.

In conclusion, understanding the personal characteristics of managers and increasing the motivation of human resources play a crucial role in the development of enterprises in both

Bulgaria and Albania. Personalized motivational strategies integrated into human resource management create more productive, satisfied and engaged employees who contribute to the innovation, growth and competitiveness of enterprises. The close relationship between motivation and human resource development is an essential aspect for achieving success in companies in Bulgaria and Albania.

Figure 4. 4 Distribution of basic Myers-Briggs types of Albanian business managers



It was observed that in Albania, there is a greater desire for self-improvement, while in Bulgaria, managers are more oriented towards long-term planning.

It was found that there was a connection between personality type and innovation. ENTJ (Leaders) and ESTJ (Organizers) profiles were more likely to implement new management systems, while ISFP profiles required more emotional support during change.

5. Conclusions and Recommendations

Integrating human resource motivation with digital innovation is no longer an option, but a necessity for stability in competitive markets. Our findings confirm that technology alone does not bring growth; it is "human readiness" that makes the difference between a successful investment and a technological failure.

Motivation should not be seen only in terms of material incentives. Although salary remains a basic factor, sustainable growth is driven by a complex interaction between the individual and the work environment. This interaction is based on the needs for esteem, autonomy and self-actualization, which stimulate creativity and reduce resistance to new systems.

The comparative analysis revealed that while managers in Albania excel in the role of "Realizer" (Producer), there is an urgent need to strengthen the roles of innovation and structural planning to respond to European market dynamics.

Personalization of Motivational Policies by Managers Using Psychological Tools (such as MBTI).

Motivation should be tailored to the individual needs of the employee's profile.

Continuous training should not be seen as a cost, but as a motivational tool. Technology-competent employees are less stressed and more loyal.

References

- Adizes, I. K. (2004). *Managing corporate lifecycles*. Prentice Hall.
- Armstrong, M. (2005). *Human resource management guide* (Translated ed.). Kogan Page.
- Cenaj, L. (2024). *The motivation of human resources as a factor for the development of the enterprise* (Doctoral dissertation, South-West University "Neofit Rilski", Blagoevgrad, Bulgaria).
- Hedgcock, J. (2002). Toward a socioliterate approach to second language teacher education. *Modern Language Journal*, 86(3), 299–317.
- Kotter, J. P. (2007). Leading change: Why transformation efforts fail. *Harvard Business Review*, 85(1), 96–103.
- Stefanov, L., & Peycheva, M. (2018). *Human resources management*. University of National and World Economy (UNWE).

CATCHING UP IN THE WESTERN BALKANS: CONDITIONAL INCOME CONVERGENCE AND STRUCTURAL DETERMINANTS

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Abstract

This paper examines conditional income convergence among the Western Balkan Six (WB6) economies over the period 1990–2025. Using panel data techniques, the analysis employs fixed effects models to estimate the relationship between GDP per capita growth and its initial level, while controlling for key structural and demographic factors. The results provide robust evidence of conditional convergence, with an estimated annual convergence rate of 6.54 percent and a half-life of approximately 10.6 years, indicating a relatively rapid catching-up process across the region. The findings further underscore the importance of structural and demographic determinants of growth. Trade openness and improvements in life expectancy are positively associated with GDP per capita growth, while higher unemployment, population growth, and dependency ratios are linked to weaker economic performance. By combining a long-run panel dataset with a comprehensive set of controls, this study contributes to the empirical literature on regional convergence by providing new evidence on both the determinants and the speed of income convergence in the WB6, with relevant implications for long-term growth and policy design.

Keywords: conditional convergence; economic growth; trade openness; demographic structure; Western Balkans.

Introduction

The Western Balkan Six (WB6) economies, Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia stand at a critical juncture in their economic development. Since the early 1990s, these countries have navigated post-socialist transition, institutional rebuilding, and macroeconomic stabilization, all while gradually integrating into the European economic and regulatory space. Today, EU accession represents both a compelling opportunity and a defining challenge: aligning with European standards has the potential to accelerate growth, enhance institutional quality, and facilitate structural convergence with higher-income EU neighbours. Yet, the question remains whether these economies can fully realize the convergence promised by neoclassical growth theory, or whether structural constraints demographic pressures, labour market inefficiencies, and uneven institutional development will limit their ability to catch up. Understanding the dynamics of conditional income convergence in the WB6 is therefore crucial for assessing the region's

capacity to bridge the income gap with the European Union and to design policies that maximize the benefits of EU integration.

The neoclassical growth framework predicts that capital-scarce economies such as the WB6 should converge toward higher-income economies. However, convergence in the Western Balkans is not solely driven by capital accumulation; it also depends critically on institutional quality, macroeconomic stability, demographic dynamics, and the pace of integration into EU markets. While the initial post-transition period was marked by strong recovery dynamics, sustaining long-term growth increasingly requires deeper structural reforms and stronger institutional foundations.

In this context, this study examines income convergence in the WB6 economies over the period 1990–2025. Using panel data techniques, the analysis provides robust evidence of conditional convergence, with an estimated annual convergence rate of 6.54 percent and a half-life of approximately 10.6 years, indicating a relatively rapid catching-up process. This speed lies at the upper end of the range typically reported in the literature, exceeding the conventional benchmark of around 2 percent often associated with the “iron law of convergence.”

The results further highlight the importance of structural and demographic determinants of growth. Improvements in life expectancy and greater trade openness support GDP per capita growth, while higher unemployment, population growth, and dependency ratios act as significant constraints. These findings underscore that sustainable convergence in the WB6 is conditional not only on capital accumulation but also on effective policies addressing demographic pressures, labour market performance, and deeper integration with EU standards and markets.

The paper is structured as follows. The next section reviews the relevant empirical literature on income convergence in the Western Balkans and the broader European context. This is followed by a description of the data and methodological approach. The results are then presented and discussed, and the paper concludes with a set of policy implications for the region.

Literature review

Capital accumulation and investment are widely recognized as central drivers of GDP per capita and economic growth within both neoclassical and endogenous growth frameworks. Higher investment rates increase the capital stock, expand productive capacity, and facilitate convergence for lower-income economies. In advanced growth models, physical capital complements human capital and technological progress to sustain long-run growth (Solow, 1956; 1957; Romer, 1986; Lucas, 1988). The classical Solow model predicts that, due to diminishing returns to capital, economies farther from their steady-state grow faster, producing a negative relationship between initial income levels and subsequent growth, known as absolute β -convergence. Building on this, Barro and Sala-i-Martin (1992) distinguished between absolute and conditional convergence. Absolute convergence assumes identical structural parameters across countries, implying all economies converge to the same steady-state. Conditional convergence, in contrast, allows each economy to converge to its own steady-state, determined by factors such as saving rates, population growth, institutional quality, and policy choices.

Over the last decades, the question of income convergence between the Western Balkan (WB) countries and the EU has received increasing attention. Scholars have focused on the dual pressures of post-socialist transition and the prospects of EU membership, with integration often expected to accelerate growth and reduce income gaps with EU countries. Empirical studies typically employ GDP per capita adjusted for purchasing power parity (PPP) and treat

EU accession as a key contextual variable, while also considering critical structural breaks such as the 2008 global financial crisis.

Gockov and Antovska (2019) apply both sigma and beta convergence techniques using a fixed-effects panel regression with controls including trade openness, agriculture, banking sector loans, and gross fixed capital formation. They examine whether EU accession can accelerate growth and facilitate convergence toward EU levels by comparing pre- and post-accession periods. Similarly, Stanisic (2016) analyzes 1993–2015, comparing WB states to the New Member States (NMS) and finding that while WB economies grew at an average 5.2% annually pre-crisis, they lagged behind NMS (5.7%), reflecting structural factors such as political instability, domestically driven demand, and incomplete institutional reforms. Stanisic et al. (2018) further show that stochastic convergence, accounting for structural breaks, is limited to few CEE countries and absent in most WB economies, highlighting the fragility of convergence in the region.

Nagy and Siljak (2019) provide additional insights by benchmarking WB6 directly against EU-15 for sub-periods before and after the 2008 crisis. Their results show modest absolute convergence (1.1–2.3% per year), with trade openness and gross fixed capital formation positively supporting growth, while government debt and unemployment exert negative effects during crises. Gockov and Antovska (2019) further emphasize structural determinants, identifying the oversize role of agriculture and institutional rigidities as key barriers to productivity-driven growth. Collectively, these studies demonstrate that while EU integration and structural reforms offer growth opportunities, shocks such as the 2008 crisis significantly disrupted convergence, leaving the WB6 below NMS and EU benchmarks.

At the country level, Sejko and Dushku (2018) show that financial development positively affects growth in Albania, suggesting that underdeveloped financial systems constrain the region’s capacity to absorb shocks and sustain productivity-led growth. The broader literature situates the WB experience against theoretical and comparative benchmarks: convergence in advanced economies or integrated regions (e.g., EU, OECD) typically ranges from 3–6% annually, whereas the WB6, even in pre-crisis periods, barely approached 2% and fell further post-crisis (Sala-i-Martin, 1996; Badinger, Müller, & Tondl, 2004). These gaps point to structural and institutional deficits as persistent barriers to convergence.

Theoretical insights from endogenous growth models further underscore the conditional nature of convergence. Human capital, knowledge spillovers, and technology are active growth drivers, not passive byproducts of capital accumulation (Romer, 1986; Lucas, 1988). Studies specific to the WB, such as Gjini (2024) for Albania and Uka and Uka (2025), confirm that FDI, infrastructure, and digital investment support productivity convergence, but the benefits depend critically on institutional quality and absorptive capacity. Similarly, higher education positively contributes to growth in the WB (Osmani & Jusufi, 2022), but skill mismatches limit productivity gains. Trade openness enhances specialization, scale economies, and technology diffusion, yet its benefits are conditional on financial development and institutional capacity, with premature liberalization potentially generating adjustment costs (Rodrik, 1998; Stiglitz, 2002).

Taken together, this body of research establishes that convergence in the Western Balkans is conditional, relying on the simultaneous development of human capital, FDI capacity, trade integration, and institutional quality. Structural, demographic, and institutional constraints have consistently prevented WB6 economies from achieving EU-level convergence, and observed progress remains fragile and shock-sensitive.

Building on this literature, the present study investigates the determinants of income convergence in the WB6 over 1990–2025 using a panel Fixed Effects framework. Our approach explicitly accounts for regional heterogeneity, demographic pressures, labor market weaknesses, and structural determinants such as trade, investment, and human capital

accumulation. By integrating macroeconomic, institutional, and demographic variables, we aim to quantify the speed and nature of conditional convergence while identifying key constraints to sustainable growth. Furthermore, the study sets the stage for future research exploring the role of technological change, digital transformation, and EU accession policies in shaping convergence trajectories, offering insights into how structural reforms and integration efforts can accelerate catch-up growth in the Western Balkans.

Methodology

This study investigates the determinants of GDP per capita growth and tests for conditional convergence across the six Western Balkan economies (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia) over the period 1990–2025. The primary empirical strategy employs a Fixed-Effects (FE) panel regression, which controls for unobserved, time-invariant country-specific characteristics that may influence economic growth (Baltagi, 2008; Wooldridge, 2010). The FE approach is widely used in the convergence literature to account for heterogeneity across countries while estimating growth dynamics (Barro & Sala-i-Martin, 1992; Islam, 1995; Caselli, Esquivel, & Lefort, 1996).. The baseline FE model is specified as:

$$\Delta \ln GDP_{it} = \alpha_i + \beta \ln GDP_{i,t-1} + \gamma X_{it} + \epsilon_{i,t}$$

where $\Delta \ln GDP_{it}$ represents the annual growth rate of real GDP per capita, $\ln GDP_{i,t-1}$ is the lagged level of GDP per capita, and X_{it} is a vector of control variables capturing structural, demographic, and macroeconomic factors. These include trade openness, life expectancy growth, the age dependency ratio, unemployment, population growth, inflation, investment, and selected institutional indicators.

The estimation strategy follows a sequential approach: starting with a baseline model testing absolute convergence, then extending to a full specification including structural and macroeconomic determinants to capture conditional convergence (Barro & Sala-i-Martin, 1992; Islam, 1995). The coefficient on lagged GDP per capita (β) provides a measure of the speed of convergence, with half-life calculations indicating the time required for economies to close income gaps (Sala-i-Martin, 1996). Standard errors are clustered at the country level to account for intra-country correlation over time (Arellano, 1987).

To ensure robustness, the FE model is complemented by pooled OLS estimates with robust standard errors, following common practice in growth and convergence studies (Baltagi, 2008; Wooldridge, 2010). The sequential inclusion of structural variables allows identification of factors that condition convergence, consistent with the framework proposed by Barro and Sala-i-Martin (1992) and later applied to transition economies (Stanisic, 2016; Gockov & Antovska, 2019). Additional diagnostic checks, including multicollinearity and model specification tests, ensure the reliability of the estimates.

Results and Discussion

The empirical analysis utilizes a balanced panel dataset for the Western Balkan Six (WB6) spanning the period 1990–2025. To capture the multi-dimensional nature of transition and growth, we merge macroeconomic, demographic, and financial indicators from the World Bank’s World Development Indicators (WDI) with specialized institutional quality measures and transition-specific indices from Müller et al. (2025). This synthesis allows for a robust examination of how structural reforms and institutional maturity influence the speed of income catch-up.

Table 1 presents descriptive statistics for the key variables used in the panel regression analysis of the Western Balkan Six (WB6) countries over 1990–2025. The sample reveals considerable heterogeneity across countries and over time. Logarithmic GDP per capita shows meaningful dispersion, reflecting the income differences documented in the convergence literature. Annual GDP growth rates are positive on average (~2.6%) but highly volatile, capturing the economic disruptions of the 1990s, the global financial crisis, and the COVID-19 pandemic. Trade openness and total investment as a share of GDP vary across countries, indicating differing levels of global integration and capital accumulation, which are critical drivers of long-term growth. Inflation displays extreme variation in early transition years due to hyperinflation episodes, stabilizing in later periods. Life expectancy has steadily improved, reflecting better human capital and health conditions, while demographic pressures remain significant, with relatively high age dependency ratios and negative or low population growth rates in several countries. Labor market weaknesses are also evident, with persistently high unemployment rates across the sample. Finally, institutional quality, proxied by the rule of law percentile rank, varies substantially, highlighting differences in governance and the investment climate across the region. Overall, these descriptive statistics underscore the structural, demographic, and macroeconomic heterogeneity that conditions growth and supports the use of a conditional convergence framework.

Table 1: Descriptive Statistics of key variables

Variable	N	Mean	SD	Min	Max
Log real GDP per capita	222	8.255	0.520	6.559	9.152
DLog real GDP per capita	216	0.026	0.090	-0.457	0.391
Trade openness (% of GDP)	228	0.848	0.259	0.126	1.661
Inflation	205	2.755	39.452	0.000	565.000
Life Expectancy	204	0.768	0.030	0.663	0.814
Age Dependency Ratio	210	0.519	0.068	0.433	0.708
Unemployment Rate	174	0.206	0.092	0.072	0.700
Population Growth	210	-0.005	0.015	-0.105	0.018
Total Investment as % of GDP	225	0.253	0.070	0.041	0.420
COVID-19 pandemic dummy (0=No, 1=Yes)	228	0.079	0.270	0.000	1.000
IQR (Rule of Law: Percentile Rank(	145	41.449	10.117	10.000	61.194

Source. Muller (2025), WDI (2025), authors calculations

Figures 1 and 2 delineate the trajectory of log real GDP per capita and its corresponding annual growth rates for the Western Balkan Six (WB6) over the 1990–2025 period. Figure 1 reveals a fundamentally upward, albeit heterogeneous, trend in income levels. Despite the profound structural disruptions of the early transition—most notably the regional conflicts of the 1990s, the 1997 financial crisis in Albania, and the 2008 global financial recession—the long-term data points toward sustained growth.

The initial conditions and subsequent paths exhibit significant divergence. Albania and Kosovo began the transition from lower income bases, experiencing sharp initial contractions before

entering a high-growth "catch-up" phase. In contrast, Bosnia and Herzegovina shows the distinct "post-war bounce" characterized by rapid recovery spikes. North Macedonia followed a more linear, steady path from a relatively higher initial base, while Montenegro and Serbia illustrate the impact of early-transition volatility followed by a period of macroeconomic stabilization after 2000.

Figure 1 Log Real GDP per Capita (USD): Western Balkan Six Countries, 1990–2025

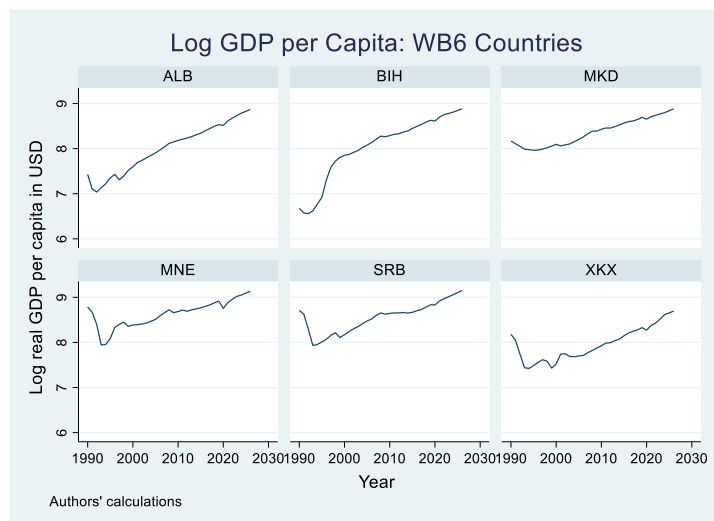


Figure 2 complements this by highlighting the idiosyncratic volatility inherent in the region's growth dynamics. The short-term fluctuations, particularly visible during crisis years, underscore the sensitivity of these small open economies to external shocks. While growth rates have shown a degree of convergence toward more moderate, stable levels since the mid-2000s, the persistent income gap relative to European Union averages remains a defining feature.

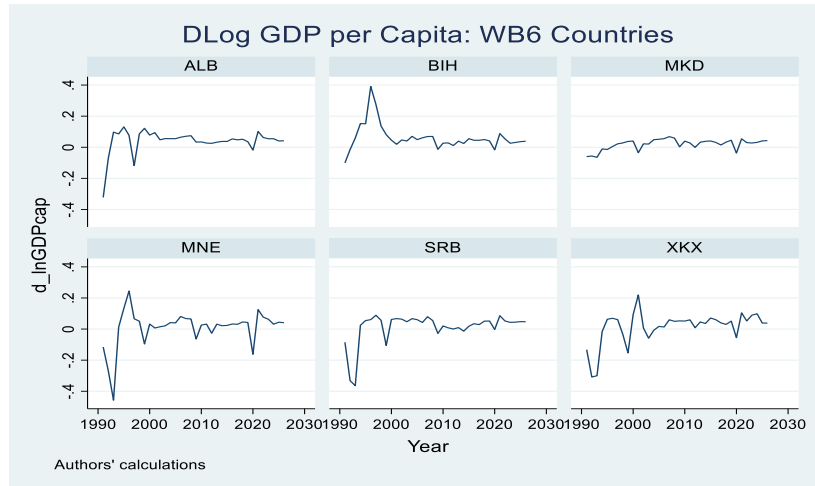
Synthesizing these observations, the dual perspective of levels and growth rates suggests that while conditional convergence is underway, the process remains susceptible to structural and demographic headwinds. The data supports the "catch-up potential" of lower-income states, but as the following econometric analysis demonstrates, this transition toward a common steady state is conditional upon institutional quality and the mitigation of demographic burdens. The results of the Fixed-Effects (FE) estimations are presented in Table 2. We employ three distinct specifications to test the robustness of the convergence hypothesis: (1) a baseline absolute convergence model, (2) an extended specification incorporating the full suite of macroeconomic and structural controls, and (3) a parsimonious model that retains only statistically significant regressors.

The transition across these models reveals a clear narrative: while absolute convergence is weak, conditional convergence is robust and rapid once structural heterogeneity is controlled for.

Column 1 presents the absolute convergence model, showing a negative coefficient on the lagged log of GDP per capita (-0.013), though it is only weakly significant. The implied speed of adjustment is 1.27%, indicating that it would take roughly 54 years for poorer economies to close the income gap with more developed countries. Column 2 extends the model by including macroeconomic and structural controls such as trade openness, inflation, investment, life expectancy changes, age dependency ratio, and population growth. The lagged GDP coefficient becomes larger in magnitude (-0.084***), with a speed of convergence of 8.81% and a half-life of approximately 7.87 years, suggesting that structural differences accelerate catch-up growth. The parsimonious model in Column 3 retains only the variables that are statistically

significant and robust. The lagged GDP coefficient remains negative and significant, implying an annual speed of convergence of 6.54% and a half-life of 10.6 years.

Figure 2 Annual Growth Rate of Log Real GDP per Capita: Western Balkan Six Countries, 1990–2025



Demographic factors, population growth and age dependency ratio strongly constrain growth, while labor market conditions, measured by unemployment, also negatively impact income gains. Conversely, life expectancy growth and trade openness positively contribute to per capita growth. The model explains 44% of within-country variation in growth and diagnostics indicate no multicollinearity issues (mean VIF = 1.74). These results suggest that catch-up growth among the WB6 countries is conditional on demographic structure, labor market efficiency, and trade integration.

Figure 3 summarizes the Fixed Effects estimates with 95% confidence intervals for key growth determinants in the Western Balkans. Trade openness and life expectancy improvements positively support per capita growth, while demographic pressures and unemployment constrain it. The lagged log GDP, capturing convergence, is not statistically significant. Population growth (~ -1.5) has the strongest negative effect, followed by the age dependency ratio (~ -1.2) and unemployment (~ -0.9). Life expectancy growth (~ 0.5) is the largest positive contributor, with trade openness showing a smaller but significant positive impact. Overall, growth is supported by human capital and market integration, but limited by demographic and labor market challenges.

Table 2: Fixed Effects Estimates: Conditional Convergence and Growth Determinants

	(1)	(2)	(3)
	Absolute Convergence	Extended Specification	Parsimonious Model
L.Log real GDP per capita in USD	-0.013	-0.084***	-0.063**
	(0.015)	(0.020)	(0.024)
Trade openness (% of GDP)		0.122***	0.100***
		(0.026)	(0.017)
Inflation		-0.010	
		(0.024)	
Life Expectancy (Δ)		0.402**	0.376**
		(0.116)	(0.105)
Age Dependency Ratio (Δ)		-0.950	-1.193***
		(0.695)	(0.267)
Unemployment Rate (Δ)		-0.780**	-0.818***
		(0.241)	(0.135)
Population Growth		-0.916**	-1.275***
		(0.282)	(0.227)
Total Investment as % of GDP		-0.153	
		(0.117)	
COVID-19 pandemic dummy (0=No, 1=Yes)		0.015	
		(0.008)	
Rule of Law: Percentile Rank		-0.001*	
		(0.001)	
Constant	0.130	0.723***	0.464*
	(0.124)	(0.159)	(0.200)
Observations	216	109	146
R^2	0.004	0.711	0.444
Speed of convergence (%)	1.269	8.811	6.542
Half-life (years)	54.638	7.867	10.595
Standard errors in parentheses Robust standard errors clustered at country level.			
* p<0.10, ** p<0.05, *** p<0.01 * p < 0.10, ** p < 0.05, *** p < 0.01			

Figure 3: Drivers of economic growth

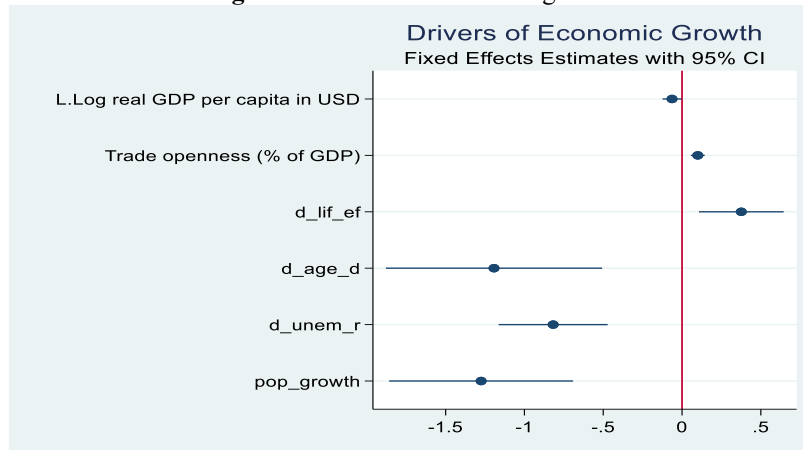
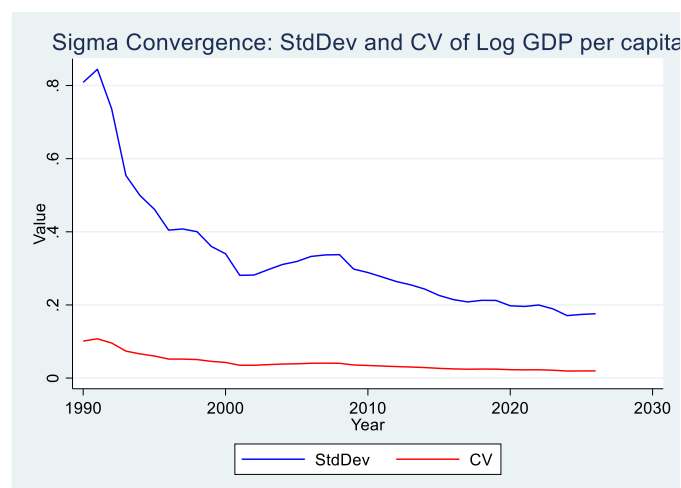


Figure 4 illustrates the evolution of sigma-convergence across the Western Balkan Six from 1990 to 2025, utilizing the standard deviation and the coefficient of variation (CV) of log real GDP per capita as primary dispersion metrics. Both indicators reveal a statistically significant downward trajectory, confirming a sustained reduction in cross-sectional income inequality over the thirty-five-year horizon.

The standard deviation of log income levels a measure of the absolute "spread" between the highest and lowest performers has contracted from approximately 0.85 in the early 1990s to 0.17 by 2025. Similarly, the coefficient of variation, which normalizes the dispersion relative to the regional mean, has declined from 0.11 to near zero. Although temporary "divergence spikes" are visible in the early 2000s likely reflecting the idiosyncratic recovery speeds following the 1990s regional conflicts the long-term trend is one of robust synchronization. This narrowing of disparities suggests that the WB6 are not only catching up to external benchmarks but are also becoming a more homogenous economic bloc, driven by shared institutional reforms and increasing regional trade integration.

Figure 4 Sigma Convergence: Standard Deviation and Coefficient of Variation of Log Real GDP per Capita, Western Balkan Six Countries, 1990–2025



Note: The blue line represents the standard deviation and the red line the coefficient of variation of log real GDP per capita across the six Western Balkan countries. A declining trend in both measures indicates sigma convergence. Source: Authors' calculations

Table 3 presents OLS regression results with robust standard errors for the WB6 countries. The negative and significant coefficient on the lagged log of GDP per capita indicates conditional convergence: poorer countries tend to grow faster than richer ones. Trade openness positively impacts growth, while higher unemployment and faster population growth constrain it. Life expectancy growth and changes in the dependency ratio are not statistically significant. The model explains 42% of growth variation, with regressors jointly significant. These OLS results broadly align with the Fixed Effects estimates, confirming that trade integration and labor market conditions are key drivers of per capita income growth, while demographic pressures remain a significant constraint.

Despite providing empirical insights into the conditional convergence of Western Balkan economies through a Fixed Effects panel framework, this study has some limitations. The small sample size (N=6) constrains the reliability of cluster-robust standard errors and F-statistics, so significance should be interpreted cautiously. Potential endogeneity may affect variables such as trade openness and investment, as faster-growing economies could attract more trade and capital simultaneously. While Fixed Effects control for time-invariant differences across countries, time-varying factors like political shocks or sector-specific technological changes may still influence growth outcomes. Finally, using only a single lag for convergence may not fully capture delayed effects of structural adjustments, suggesting that future research could benefit from exploring more complex lag structures and larger country panels

Table 3: OLS regression

	(1)
	d lnGDPcap
L.Log real GDP per capita in USD	-0.045***
	(0.012)
Trade openness (% of GDP)	0.059***
	(0.021)
Life Expectancy (Δ)	0.506
	(0.416)
Age Dependency Ratio (Δ)	-0.337
	(0.706)
Unemployment Rate (Δ)	-0.889***
	(0.129)
Population Growth	-0.969**
	(0.483)
Constant	0.346***
	(0.095)
Observations	146
R ²	0.42
F	16.79***
Note: Robust standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01	

Conclusions

This study provides robust evidence of conditional income convergence among the Western Balkan Six (WB6) economies over 1990–2025, with an annual speed of convergence of 6.54% and a half-life of approximately 10.6 years. This pace, higher than the traditional “Iron Law of Convergence,” reflects the benefits of regional trade integration, coordinated policy frameworks, and gradual improvements in human capital. However, convergence is neither automatic nor uniform across the region. Initial income disparities and structural heterogeneity produce markedly different growth trajectories. Albania and Kosovo, starting from lower income levels, exhibit sharp early dips due to political and economic crises, whereas North Macedonia and Montenegro begin at higher levels and grow more steadily. Bosnia and Herzegovina and Serbia display pronounced volatility, reflecting conflict and transition shocks, illustrating how historical legacies and institutional differences shape growth dynamics.

Structural and demographic factors emerge as key determinants of growth. While trade openness and improvements in life expectancy foster per capita income growth, high dependency ratios, population pressures, and persistent unemployment significantly constrain it. These findings underscore that sustainable convergence requires deliberate policy interventions rather than market forces alone. Tailored strategies addressing demographic challenges, enhancing human capital, reforming labor markets, and promoting trade and financial integration are essential. Coordinated regional policies could further amplify convergence by fostering knowledge spillovers, harmonizing regulations, and supporting shared infrastructure development.

Future research should explore both the speed and quality of convergence. Investigating how foreign direct investment and capital inflows channel resources toward high-productivity sectors will clarify whether growth is sustainable. The impact of skilled migration and “brain drain” on long-term income dynamics warrants close examination given the region’s demographic pressures. Furthermore, as the WB6 economies move closer to EU accession, it will be critical to assess how technology adoption, digital transformation, and compliance with EU environmental standards influence convergence. Understanding these factors will help ensure that growth is not only faster but also inclusive, resilient, and aligned with broader European integration goals, ultimately supporting sustained reductions in regional income disparities.

References

- Acemoglu, D., Johnson, S., & Robinson, J. (n.d.). *Institutions As The Fundamental Cause Of Long-Run Growth*. Retrieved 4 March 2026, from <https://ideas.repec.org/p/col/000089/002889.html>
- Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2004). FDI and economic growth: The role of local financial markets. *Journal of International Economics*, 64(1), 89–112. [https://doi.org/10.1016/S0022-1996\(03\)00081-3](https://doi.org/10.1016/S0022-1996(03)00081-3)
- Badinger, H., Müller, W. G., & Tondl, G. (n.d.). *Regional convergence in the European Union (1985–1999): A spatial dynamic panel analysis*.
- Baldacci, E., Clements, B., Gupta, S., & Cui, Q. (2008). Social Spending, Human Capital, and Growth in Developing Countries. *World Development*, 36(8), 1317–1341. <https://doi.org/10.1016/j.worlddev.2007.08.003>
- Benos, N., & Zotou, S. (2014). Education and Economic Growth: A Meta-Regression Analysis. *World Development*, 64, 669–689. <https://doi.org/10.1016/j.worlddev.2014.06.034>
- Blomström, M., & Kokko, A. (1997). *How foreign investment affects host countries*. Washington, DC : World Bank, Internat. Economics Dep., Internat. Trade Div.
- Caselli, F., Esquivel, G., & Lefort, F. (1996). Reopening the convergence debate: A new look at cross-country growth empirics. *Journal of Economic Growth*, 1(3), 363–389. <https://doi.org/10.1007/BF00141044>
- Dollar, D., & Kraay, A. (2004). Trade, Growth, and Poverty. *The Economic Journal*, 114(493), F22–F49. <https://doi.org/10.1111/j.0013-0133.2004.00186.x>

- Frankel, J. A., & Romer, D. H. (n.d.). *Does Trade Cause Growth? - American Economic Association*. Retrieved 4 March 2026, from <https://www.aeaweb.org/articles?id=10.1257/aer.89.3.379>
- Gjini, K. (n.d.). How Does Foreign Direct Investment Influence Albania’s Economic Growth? *Recent Advances in Information Technology, Tourism, Economics, Management and Agriculture-*, 193–201. Retrieved 25 March 2026, from <https://www.cceol.com/search/chapter-detail?id=1403875>
- Gockov, G., & Antovska, A. (2019). Western Balkans countries income convergence in the context of EU membership – dynamics and determinants. *Journal Transition Studies Review*, 26(2), 69–84. <https://doi.org/10.14665/1614-4007-26-006>
- Hanushek, E. A., & Woessmann, L. (2012). Schooling, educational achievement, and the Latin American growth puzzle. *Journal of Development Economics*, 99(2), 497–512. <https://doi.org/10.1016/j.jdeveco.2012.06.004>
- Hanushek, E. A., & Woessmann, L. (2020). Education, knowledge capital, and economic growth. In *The Economics of Education* (pp. 171–182). Elsevier. <https://doi.org/10.1016/B978-0-12-815391-8.00014-8>
- Helpman, E., & Grossman, G. M. (1991). *Innovation and Growth in the Global Economy*. MIT Press.
- Islam, N. (1995). Growth Empirics: A Panel Data Approach. *The Quarterly Journal of Economics*, 110(4), 1127–1170. <https://doi.org/10.2307/2946651>
- Jošić, H., & Žmuk, B. (n.d.). *Determinants of GDP per capita in EMU countries: Membership*. Retrieved 4 March 2026, from https://ideas.repec.org/a/pal/compes/v68y2026id10.1057_s41294-025-00271-3.html
- Krugman, P. (1980). Scale Economies, Product Differentiation, and the Pattern of Trade. *The American Economic Review*, 70(5), 950–959.
- Lucas, R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, 22(1), 3–42. [https://doi.org/10.1016/0304-3932\(88\)90168-7](https://doi.org/10.1016/0304-3932(88)90168-7)
- Mankiw, N. G., Romer, D., & Weil, D. N. (n.d.). *A Contribution to the Empirics of Economic Growth*.
- McArthur, J. W., & Sachs, J. D. (2001). *Institutions and Geography: Comment on Acemoglu, Johnson and Robinson (2000)* (Working Paper No. 8114). National Bureau of Economic Research. <https://doi.org/10.3386/w8114>
- Meksi, E., & Xhaja, E. (2017). *Income and structural convergence of Western Balkans to European Union*.
- Müller, K., Xu, C., Lehib, M., & Chen, Z. (2025). *The Global Macro Database: A New International Macroeconomic Dataset* (Working Paper No. 33714). National Bureau of Economic Research. <https://doi.org/10.3386/w33714>
- Multinational Corporations and Spillovers—Blomström—1998—Journal of Economic Surveys—Wiley Online Library*. (n.d.). Retrieved 4 March 2026, from <https://onlinelibrary.wiley.com/doi/abs/10.1111/1467-6419.00056>
- N. Gregory Mankiw , David Romer , David N. Weil. (n.d.). *Contribution to the Empirics of Economic Growth | The Quarterly Journal of Economics | Oxford Academic*. Retrieved 4 March 2026, from <https://academic.oup.com/qje/article-abstract/107/2/407/1838296>
- Nagy, S. G., & Siljak, D. (2019). Convergencia económica de los Balcanes Occidentales hacia la ue-15. *Revista Finanzas y Política Económica*, 11(1), 41–53. <https://doi.org/10.14718/revfinanzpolitecon.2019.11.1.3>
- Osmani, F., & Jusufi, G. (n.d.). *The contribution of higher education to economic growth of Western Balkans: Evidence from Kosovo, Albania, North Macedonia, and Montenegro*. Retrieved 4 March 2026, from <https://hrcak.srce.hr/280273>
- Patrinos, H. A., & Psacharopoulos, G. (n.d.). *Returns to Investment in Education: A Further Update* (SSRN Scholarly Paper No. 1273483). Social Science Research Network. Retrieved 18 March 2026, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1273483
- Pritchett, L. (1997). Divergence, Big Time. *The Journal of Economic Perspectives*, 11(3), 3–17.
- Quah, D. T. (n.d.). *Twin Peaks: Growth and Convergence in Models of Distribution*. Retrieved 4 March 2026, from <https://ideas.repec.org/a/ecj/econjl/v106y1996i437p1045-55.html>
- Returns to investment in education: A further update: Education Economics: Vol 12 , No 2—Get Access*. (n.d.). Retrieved 4 March 2026, from <https://www.tandfonline.com/doi/full/10.1080/0964529042000239140>
- Rodrik, D. (1998). Why do More Open Economies Have Bigger Governments? *Journal of Political Economy*, 106(5), 997–1032. <https://doi.org/10.1086/250038>
- Romer, P. M. (1986). Increasing Returns and Long-Run Growth. *Journal of Political Economy*, 94(5), 1002–1037. <https://doi.org/10.1086/261420>
- Sejko, G., & Dushku, E. (2018). Zhvillimi financiar dhe rritja ekonomike në Shqipëri: Evidenca të reja. *Studime Mbi Sistemin Bankar Dhe Zhvillimin Ekonomik*, 16(1), 5–26.

- Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. *The Quarterly Journal of Economics*, 70(1), 65. <https://doi.org/10.2307/1884513>
- Solow, R. M. (1957). Technical Change and the Aggregate Production Function. *The Review of Economics and Statistics*, 39(3), 312. <https://doi.org/10.2307/1926047>
- Stanišić, N. (2016). Income convergence in the process of the Western Balkan states' accession to the European Union. *Ekonomski Horizonti*, 18, 3–14. <https://doi.org/10.5937/ekonhor1601003S>
- Stanišić, N., Makojević, N., & Ćurčić, T. T. (2018). The EU Enlargement and Income Convergence: Central and Eastern European Countries vs. Western Balkan Countries. *Entrepreneurial Business and Economics Review*, 6(3), 29–41. <https://doi.org/10.15678/EBER.2018.060302>
- Stiglitz, J. E. (n.d.). *Globalization and Its Discontents*. Retrieved 4 March 2026, from <https://www.norton.com/books/globalization-and-its-discontents/>
- Uka, A., & Uka, E. (2025). Empirical Analysis of the Impact of FDI, Trade Openness and Human Capital on Economic Growth Case: Western Balkans (WB6). *UBT International Conference*. <https://knowledgecenter.ubt-uni.net/conference/2025UBTIC/MBE/2>
- Xavier X. Sala-i-Martin. (n.d.). *Classical Approach to Convergence Analysis* | *The Economic Journal* | *Oxford Academic*. Retrieved 4 March 2026, from <https://academic.oup.com/ej/article-abstract/106/437/1019/5159124>

BETWEEN FRUGAL INNOVATION AND SUSTAINABILITY

A BIBLIOMETRIC REVIEW

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Abstract

The keyword co-occurrence analysis reveals four major thematic clusters in the literature. The first cluster focuses on the relationship between frugal innovation and sustainability, emphasizing concepts such as sustainable development and the Sustainable Development Goals. The second cluster highlights the geographical context of frugal innovation research, with frequent references to emerging economies such as India and Brazil. The third cluster links frugal innovation with technological innovation and entrepreneurship, suggesting that scholars increasingly examine frugal innovation as a strategy for firms operating under resource constraints. Finally, the fourth cluster relates to business models and developing country contexts, indicating growing interest in how organizations design scalable and affordable solutions for low-income markets. This study, through a literature review, using Scopus Indexet publication from 2000 to 2026 and using the VOSviewer software to analyzing the data, develops the link between Frugal Innovation and Sustainability.

Keywords: Frugal Innovation, Sustainability, Firms Strategy, Business Model, Literature Review

Introduction

In the context of increasing environmental challenges, resource scarcity, and socio-economic inequalities, sustainable business development has become a strategic priority for organizations worldwide (Elkington, 1997; Porter and Kramer, 2011). Firms are increasingly expected to balance economic performance with environmental responsibility and social inclusion, in line with the principles of the triple bottom line (Elkington, 1997). At the same time, frugal innovation has emerged as a complementary approach, emphasizing the development of cost-effective, accessible, and resource-efficient solutions, particularly in resource-constrained environments (Hossain et al., 2021).

The growing interest in frugal innovation reflects its potential to address sustainability challenges by providing affordable solutions while minimizing resource use (Weyrauch & Herstatt, 2019; Hossain, 2018). This is particularly relevant in emerging economies, where institutional constraints and unmet societal needs drive innovative practices (London & Hart, 2004; Prahalad, 2012). Despite this potential, the relationship between frugal innovation and

sustainable business development remains fragmented in the literature, with limited integrative and systematic analysis (Dembek et al., 2018; Rosca, Arnold, & Bendul, 2017).

Using bibliometric techniques and visualization tools, specifically VOSviewer, this research analyzes keyword co-occurrence patterns to identify major thematic clusters and to better understand the evolving linkages between frugal innovation and sustainability. By doing so, the study aims to provide a structured overview of the field and contribute to a deeper understanding of how frugal innovation can support sustainable development pathways.

The structure of this article is organized as follows: it begins with a brief description of the aims, problem and method for the work. At first section of the article is revealed an overview of frugal innovation and sustainability. The second section describes the methodology that has been used. The third section reveals the results and in the end the article concludes with the conclusion.

Literature Review

1.1 Frugal Innovation

In recent years, frugal innovation has emerged as a significant area of scholarly inquiry, particularly in relation to sustainability and inclusive development (Hossain et al., 2021; George et al., 2012). As global challenges such as resource scarcity, environmental degradation, and social inequality intensify, there is increasing interest in innovation approaches that emphasize affordability, efficiency, and accessibility (Agarwal and Brem, 2017; Bocken et al., 2014). Frugal innovation, often characterized by the development of cost-effective solutions under resource constraints (Wooldridge, 2010), has gained prominence as a strategic response to these challenges, especially within emerging and developing economies (Ananthram et al., 2024; Prahalad, 2012). Furthermore, scholars highlight that frugal innovation not only enhances access to essential goods and services but also supports inclusive growth and sustainable development by addressing the needs of underserved populations (Hossain, 2018). A substantial body of literature situates frugal innovation within emerging market contexts. Scholars highlight that countries such as India, Brazil, and China serve as primary incubators for frugal solutions due to institutional voids, infrastructural challenges, and high levels of unmet demand (London and Hart, 2004; Zeschky et al., 2011; Prahalad, 2012; Winterhalter et al., 2017). In these environments, firms are compelled to innovate under constraints, leading to the development of cost-effective and scalable products and services. This perspective aligns with the concept of “constraint-based innovation,” where scarcity acts as a catalyst for creativity (Bound and Thornton, 2012). Moreover, the phenomenon of reverse innovation—where innovations developed in emerging economies diffuse to developed markets—further underscores the global relevance of frugal innovation (Govindarajan and Trimble, 2012). As we can see the frugal innovation from the outcome perspective, it has been linked to a number of beneficial outcomes at both the macro and micro levels, such as contributions to sustainability (Hossain et al., 2021), market disruption and organizational learning (Onsongo and Knorringa, 2025), business growth (Hossain et al., 2022), employment creation, local development, and improved access to essential services (Sarkar and Mateus, 2022). In general, it is becoming more widely acknowledged as a catalyst for favorable social, economic, and environmental results (Iqbal et al., 2022).

Another important stream of research examines the relationship between frugal innovation, entrepreneurship, and technological development. Frugal innovation is frequently associated with entrepreneurial activity, particularly in contexts characterized by uncertainty and limited resources (George, McGahan, and Prabhu, 2012). Entrepreneurs play a key role in leveraging local knowledge and informal networks to develop contextually appropriate solutions.

Additionally, frugal innovation is increasingly linked to technological innovation, particularly in areas such as digital technologies and renewable energy, where low-cost solutions can have transformative impacts. Recent studies show that ICT technologies can function both as objects of frugal innovation and as enablers of frugal innovation processes (Cuevas-Vargas et al., 2022; Khanal, 2022; Provin, 2024). This highlights the strategic importance of frugal innovation for firms seeking to remain competitive in dynamic and resource-constrained environments.

Business model innovation represents another critical dimension of the literature related to frugal innovation. Scholars emphasize that the success of frugal innovation depends not only on product design but also on the development of business models that ensure affordability, scalability, and accessibility (Teece, 2010; Winterhalter, Zeschky and Gassmann, 2017). These models often involve novel approaches such as pay-per-use systems, micro-financing, and decentralized distribution channels tailored to low-income consumers. Furthermore, partnerships with local stakeholders, governments, and non-governmental organizations are frequently highlighted as essential for scaling frugal innovations in developing country contexts (Bhatti et al., 2019).

1.2 Sustainable Business Development

Sustainable business development has become a central theme in contemporary academic and policy debates, reflecting the increasing pressure on firms to balance economic performance with environmental stewardship and social responsibility. Rooted in the broader concept of sustainable development, sustainable business development refers to organizational strategies and practices that create long-term value while addressing environmental and social challenges (Hart and Milstein, 2003). The concept is closely aligned with the triple bottom line framework, which emphasizes the integration of economic, environmental, and social dimensions of performance (Elkington, 1997).

In terms of competitive advantage, scholars argue that firms adopting sustainable practices can enhance their long-term performance by improving resource efficiency, reducing risks, and strengthening stakeholder relationships (Kramer and Porter, 2011). The concept of “shared value” further reinforces this perspective, suggesting that businesses can simultaneously generate economic value and societal benefits (Kramer and Porter, 2011). In this context, sustainability is no longer viewed as a cost or compliance issue but as a strategic opportunity for innovation and differentiation (Hoffman, 2007). However, some studies caution that the relationship between sustainability and financial performance is complex and context-dependent, requiring careful alignment between corporate strategy and sustainability goals (Ioannou and Serafeim, 2015).

1.3 Frugal Innovation and Sustainability

Innovation plays a crucial role in advancing sustainable business development. The literature highlights various forms of sustainability-oriented innovation, including eco-innovation, social innovation, and frugal innovation. These innovation approaches aim to address environmental and social challenges while creating economic value (Boons and Lüdeke-Freund, 2013). In particular, digital technologies are increasingly recognized as enablers of sustainable innovation, facilitating more efficient resource management, transparent supply chains, and new business opportunities. However, Graham, (2019) notes that potential trade-offs, such as the environmental impact of digital infrastructure and the risk of exacerbating social inequalities. Scholars argue that frugal innovation contributes to the achievement of the Sustainable Development Goals (SDGs) by addressing pressing global challenges such as poverty, healthcare access, and clean energy provision (Hossain, 2018; Bocken and Short, 2016). However, this relationship is not universally accepted. Some studies critically highlight

that cost reduction alone does not guarantee sustainability outcomes, emphasizing the need to assess long-term environmental and social impacts (Dembek, York, and Singh, 2018). Despite the rapid growth of research in this field, the literature remains fragmented across multiple disciplines, including innovation management, entrepreneurship, and sustainability studies. This fragmentation has limited the development of a cohesive theoretical framework for understanding frugal innovation and its broader implications. In particular, there is a need for integrative approaches that systematically examine the linkages between frugal innovation and sustainability outcomes. Bibliometric studies have begun to address this gap by mapping the intellectual structure of the field and identifying key thematic clusters, including sustainability, emerging economies, technological innovation, and business models and this is what this study also addresses.

Methodology

The objective of this article is to reveal how the Frugal Innovation is related to Sustainability through the lens of bibliometric analysis. Bibliometric analysis is widely used to map the intellectual structure of a research field, identify key themes, and explore relationships between concepts (Donthu et al., 2021).

2.1 Data Collection

The data for this study were retrieved from the Scopus database, which is recognized as one of the most comprehensive sources of peer-reviewed academic literature. The search was conducted using relevant keywords, including “frugal innovation,” “sustainable business development,” “sustainability,” and related terms. The time frame was set from 2000 to 2026 to capture the evolution of the field over time.

2.2 Data Analysis

After screening following three sequence phases, the final data-set consisted of a curated sample of publications suitable for bibliometric analysis considering 138 article. Based on the literature, a bibliometric analysis can be used a bibliometric protocol (Donthu et al., 2022), PRISMA-P (Moher et al., 2015) or a bibliometric analysis toolbox (Donthu et al., 2021). This article is based on the bibliometric protocol structured in three phases, described in the figure 1.

The first step Identification - involved a thorough search of the Scopus database, which is well known for its excellent indexing and multidisciplinary coverage. To find a large yet pertinent collection of papers, the following Keywords was used: (("frugal innovation" OR "jugaad innovation" OR "cost innovation" OR "resource-constrained innovation") AND (sustainab* OR "sustainable development" OR "environmental sustainability"))

To guarantee topic relevancy and breadth, this query was used on titles, abstracts, and keywords. Since there were no time constraints, all possibly pertinent documents may be found through 2026. Research for frugal innovation and sustainability appears to have started in 2006, based on the first articles that could be found.

The second step that is the Selection - A set of inclusion and exclusion criteria was used to narrow down the original document pool.

-To maintain linguistic consistency and interpretability, only English-language articles were kept.

- Reviews, conference papers, editorials, and book chapters were not included in the selection process because it was restricted to peer-reviewed journal articles.

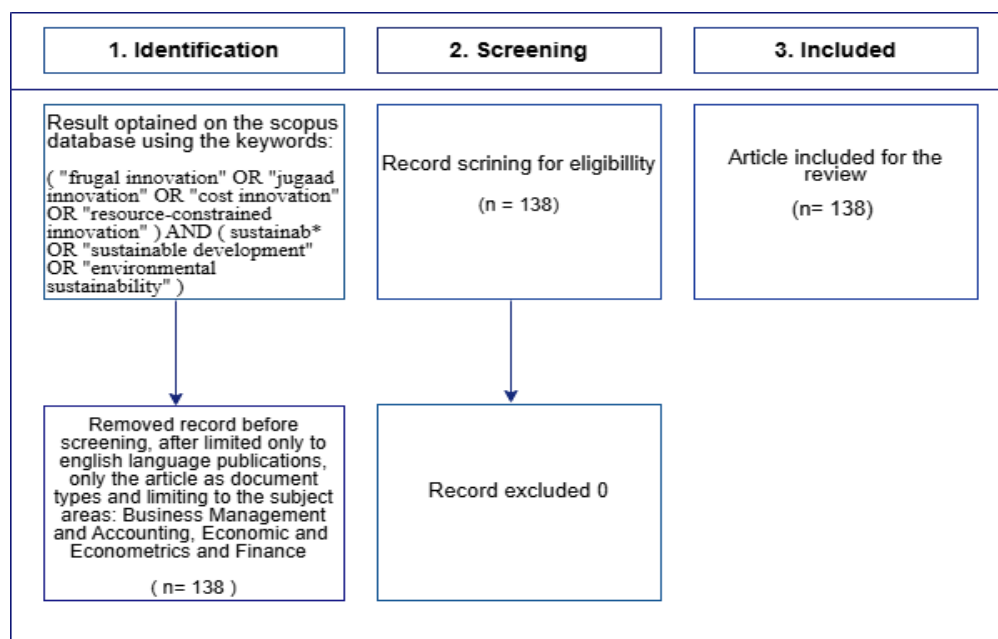
- The search was further narrowed by selecting the topic areas that most closely matched the scope of the study, such as Business Management and Accounting, and Economics and Econometrics and Finance.

Based on this disciplinary filtering, the literature that was chosen was guaranteed to be methodologically and topically relevant to the relationship between frugal innovation and sustainability.

The third step Analysis - VOSviewer (version 1.6.20) was used to export the chosen documents from Scopus in CSV format for bibliometric and co-occurrence analysis. In the literature at the nexus of frugal innovation and the business sustainability, the analysis aimed to find research patterns, theme clusters, and intellectual frameworks. The Scopus CSV export was set up to contain crucial bibliographic data, including author keywords, titles, abstracts of the articles, citation information and the journal where it was published the article, before being imported into VOSviewer. Specifically, keyword co-occurrence analysis was employed to identify the main research themes and their interconnections (Donthu et al., 2021). Keywords were extracted from the selected publications and analyzed based on their frequency and co-occurrence relationships. A minimum threshold of five keyword occurrences was applied to ensure that only the most relevant and frequently occurring keywords were included in the analysis. The final set of 22 keywords that emerged from this procedure served as the foundation for creating the keyword co-occurrence network.

The keywords were divided into four separate clusters by the VOSviewer clustering algorithm, each of which is shown in the network visualization as a different color. With nodes standing in for keywords and edges for the frequency of co-occurrences, these clusters showed cohesive thematic areas.

Figure 3: Data screening process



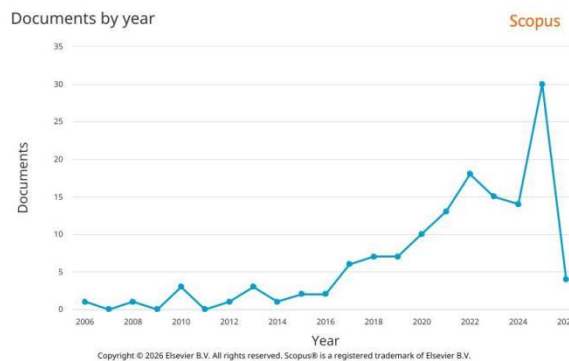
Source: Authors' elaboration

Results

3.1 Descriptive statistic

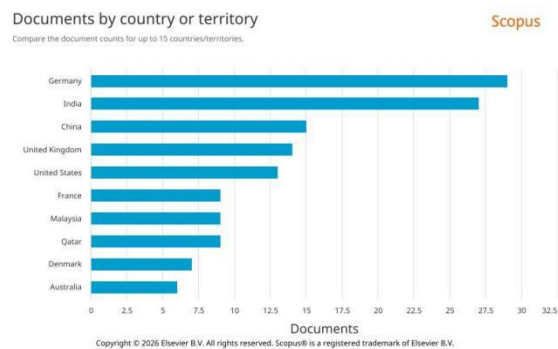
This section will present some descriptive statistics about the documents of 138 article considering in this study. In the figures below we will consider in which years these articles were published, in which countries, by which authors and in what fields.

Figure 4: Published article by year



Source: Authors' elaboration on Scopus database

Figure 5: Published article by country



The first article related to frugal innovation and sustainability was published in 2006, considering how to improve environmental sustainability for automotive suppliers by giving them low-cost innovations. As we can see in the figure above, publications have begun to increase from 2016 onwards, reaching a peak in 2025. Meanwhile, the year 2026 cannot yet be considered as it has just begun.

As we can notice in the figure above, the largest number of publications in these articles is led by Germany with 29 articles and India with 27 articles. And then goes China with 15, United Kingdom 14, United States 13, France 9, Malaysia 9, Qatar 9, Denmark 7, Australia 6, Spain 5, Saudi Arabia 5, Poland 5, Italy 5, Pakistan 5, Netherlands 5, Finland 5, Brazil 5, Jordan 4, Oman 3, Portugal 3, Turkey 3, Indonesia 3, Canada 3, and there are other countries that have less than 2 publications.

Figure 6: Number of article written by authors

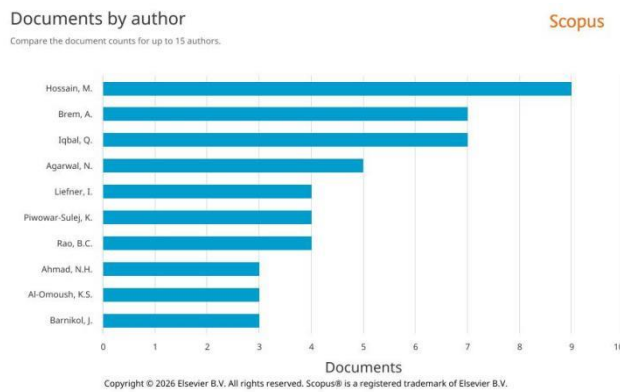
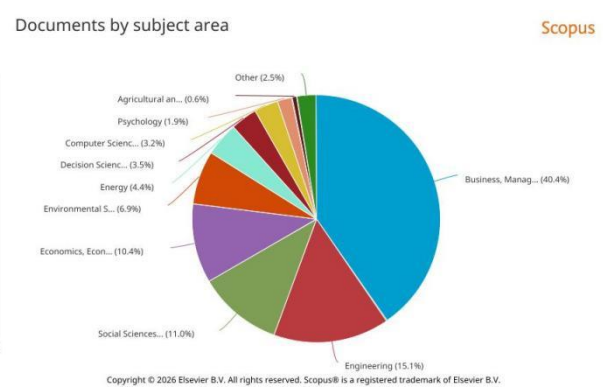


Figure 7: Article by Subject Area



Source: Authors' elaboration on Scopus database

The authors who have written the most in these articles taken into consideration are: Hossain, M that has 9 article and this author has h-index = 31 in Scopus; Brem, A that has 7 article and has h-index = 54 in Scopus; Iqbal, Q that has 7 article and has h-index = 24 in Scopus; Agarwal, N has 5 article and has h-index = 20 in Scopus; Liefner, L has 4 article and has h-index = 25 in Scopus; Piwowar-Sulej, K has 4 article and has h-index = 19 in Scopus; Rao, B.C has 4 article and has h-index = 18 in Scopus; there are 7 authors who have written 2 articles in this database and others one.

The articles of this database are mainly in the field of Business, Management and Finance which make up 40% of the database, precisely with 128 articles. The field of Engineering makes up 15.1% of the database with 48 articles, Social Science makes up 11% with 35 articles, Economics, Econometrics and Finance makes up 10.4% of the database with 33 articles and the other article are completed by other fields. This is shown also in the Figure 5 above.

3.2 Science mapping

The findings of the keyword co-occurrence analysis performed on 138 Scopus-indexed publications using VOSviewer are shown in this section. 22 keywords were obtained by applying a minimum threshold of five keyword occurrences. These keywords were then divided into four major thematic clusters, each of which is explained below.

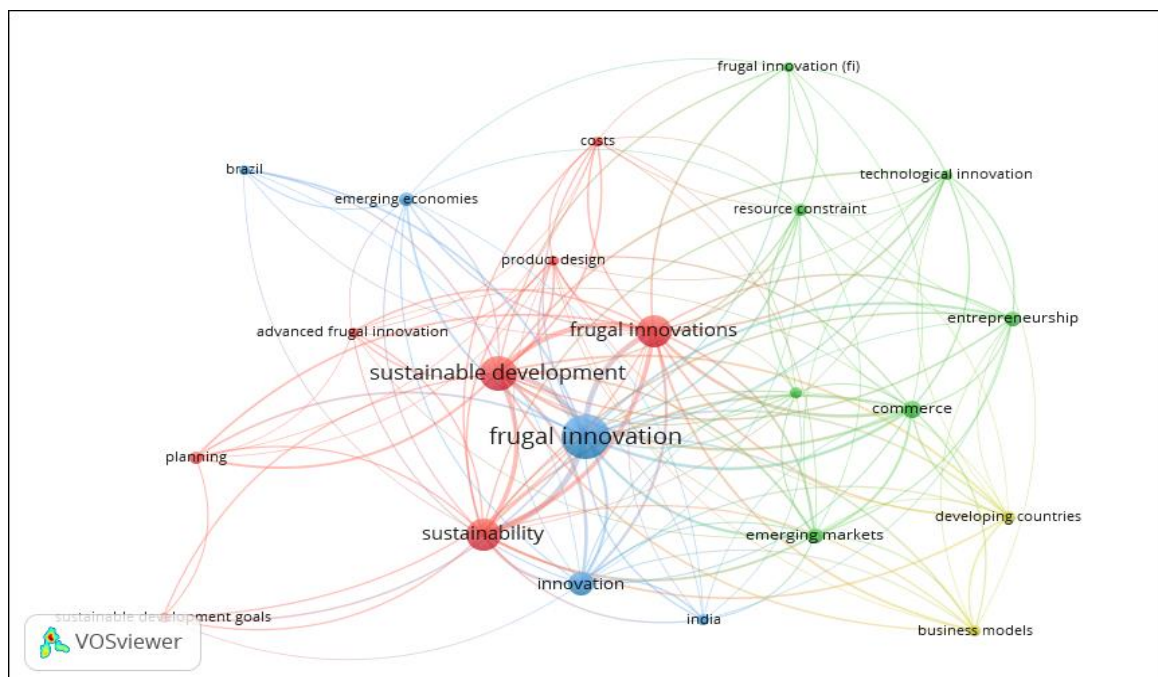
Red cluster (8 items) represents the relationship between frugal innovation and sustainability, emphasizing concepts such as sustainable development and the Sustainable Development Goals. A central stream of the literature links frugal innovation with sustainability and sustainable development objectives. Frugal innovation is commonly defined as the development of affordable and resource-efficient solutions, often summarized as “doing more with less” (Wooldridge, 2010). This efficiency-oriented approach naturally aligns with sustainability principles, particularly in reducing material consumption and minimizing environmental impact.

Green cluster (7 items) - The second cluster links frugal innovation with technological innovation and entrepreneurship, suggesting that scholars increasingly examine frugal innovation as a strategy for firms operating under resource constraints. Frugal innovation is often associated with grassroots and social entrepreneurship, where the focus is on creating both economic and social value. At the same time, advancements in technology—particularly digital technologies and renewable energy—have expanded the scope and impact of frugal solutions.

Blue Cluster (5 items) The literature in this area is frequently situated within emerging and developing economies. Countries such as India, Brazil, and China are frequently cited as key contexts where frugal innovation emerges as a necessity rather than a choice (London and Hart, 2004; Prahalad, 2012). These environments are characterized by institutional voids, limited infrastructure, and large underserved populations, which create both constraints and opportunities for innovation.

Yellow Cluster (2 items) the fourth cluster relates to business models and developing country contexts, indicating growing interest in how organizations design scalable and affordable solutions for low-income markets. The literature emphasizes that successful frugal innovation extends beyond product design to include innovative business models that ensure affordability, scalability, and accessibility (Teece, 2010; Winterhalter, Zeschky and Gassmann, 2017).

Figure 8: Maps of the keywords processed in VOSviewer



Source: Author's elaboration using VOSviewer

Conclusion and Discussion

This study provides a comprehensive bibliometric analysis of the relationship between frugal innovation and sustainable business development. By analyzing Scopus-indexed publications from 2000 to 2026 using VOSviewer, the study identifies four major thematic clusters that define the field: sustainability, emerging economies, technology and entrepreneurship, and business models.

First, the strong linkage between frugal innovation and sustainability confirms that resource-efficient and inclusive innovation approaches are increasingly recognized as essential for addressing global challenges. However, the literature also suggests that this relationship requires further empirical validation, particularly in assessing long-term sustainability impacts. Second, the prominence of emerging economies underscores the importance of context in shaping innovation processes. These regions serve as laboratories for frugal innovation, demonstrating how constraints can drive creativity and lead to scalable solutions. At the same time, the diffusion of these innovations to developed markets highlights their global relevance. Third, the integration of technology and entrepreneurship reflects the evolving nature of frugal

innovation. Digital technologies, in particular, play a critical role in expanding access to services and improving efficiency. However, potential trade-offs between cost, performance, and sustainability must be carefully managed. Finally, the importance of business models highlights that innovation is not limited to products and technologies but also involves new ways of creating and delivering value. Sustainable and frugal business models are essential for ensuring scalability and long-term impact. The findings highlight the growing importance of frugal innovation as a pathway to sustainable development, particularly in resource-constrained environments. At the same time, the study identifies key research gaps, including the need for more integrative frameworks and empirical studies to better understand the impact of frugal innovation on sustainability outcomes. The identified clusters highlight the multidimensional nature of the field and reveal several key trends.

From a practical perspective, the study suggests that policymakers and business leaders should support the development and scaling of frugal innovations through appropriate institutional frameworks, technological investments, and collaborative partnerships. Future research should focus on exploring the long-term sustainability impacts of frugal innovation, developing robust measurement tools, and examining the role of emerging technologies in shaping the future of sustainable business development.

References

- Agarwal, N., & Brem, A. (2017). Frugal innovation-past, present, and future. *IEEE Engineering Management Review*, 45(3), 37-41.
- Ananthram, S., Luo, Y., & Peng, M. W. (2024). Social entrepreneurship and frugal innovation: a composition-based view. *Journal of Social Entrepreneurship*, 15(3), 956-977.
- Bhatti, Y., & Prabhu, J. (2019). Frugal innovation and social innovation: Linked paths to achieving inclusion sustainably. *Handbook of inclusive innovation. The role of organizations, markets and communities in social innovation*, 354-376.
- Bocken, N. M., & Short, S. W. (2016). Towards a sufficiency-driven business model: Experiences and opportunities. *Environmental innovation and societal transitions*, 18, 41-61.
- Bocken, N. M., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of cleaner production*, 65, 42-56.
- Boons, F., & Lüdeke-Freund, F. (2013). Business models for sustainable innovation: state-of-the-art and steps towards a research agenda. *Journal of Cleaner production*, 45, 9-19.
- Bound, K., & Thornton, I. W. (2012). Our frugal future: Lessons from India's innovation system.
- Dembek, K., York, J., & Singh, P. J. (2018). Creating value for multiple stakeholders: Sustainable business models at the Base of the Pyramid. *Journal of Cleaner production*, 196, 1600-1612.
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of business research*, 133, 285-296.
- Donthu, N., Kumar, S., Ranaweera, C., Pattnaik, D., & Gustafsson, A. (2022). Mapping of journal of services marketing themes: a retrospective overview using bibliometric analysis. *Journal of Services Marketing*, 36(3), 340-363.
- Elkington, J. (1997). The triple bottom line. *Environmental management: Readings and cases*, 2(1997), 49-66.
- George, G., McGahan, A. M., & Prabhu, J. (2012). Innovation for inclusive growth: Towards a theoretical framework and a research agenda. *Journal of management studies*, 49(4), 661-683.
- Govindarajan, V., & Trimble, C. (2012). Reverse innovation: a global growth strategy that could pre-empt disruption at home. *Strategy & Leadership*, 40(5), 5-11.
- Hart, S. L., & Milstein, M. B. (2003). Creating sustainable value. *Academy of Management Perspectives*, 17(2), 56-67.
- Hoffman, A. J. (2007). *Carbon strategies: How leading companies are reducing their climate change footprint*. University of Michigan Press.
- Hossain, M. (2018). Frugal innovation: A review and research agenda. *Journal of Cleaner Production*.

- Hossain, M. (2021). Frugal innovation and sustainable business models. *Technology in society*, 64, 101508.
- Hossain, Mokter, Sukyung Park, and Subhan Shahid. "Frugal innovation for sustainable rural development." *Technological Forecasting and Social Change* 193 (2023): 122662.
- Ioannou, I., & Serafeim, G. (2015). The impact of corporate social responsibility on investment recommendations: Analysts' perceptions and shifting institutional logics. *Strategic Management Journal*, 36(7), 1053–1081
- Iqbal, Q., Ahmad, N. H., Li, Z., & Li, Y. (2022). To walk in beauty: Sustainable leadership, frugal innovation and environmental performance. *Managerial and Decision Economics*, 43(3), 738-750.
- Kramer, M. R., & Porter, M. (2011). *Creating shared value* (Vol. 17, pp. 114-134). Boston, MA: FSG
- London, T., & Hart, S. L. (2004). Reinventing strategies for emerging markets: beyond the transnational model. *Journal of international business studies*, 35(5), 350-370.
- Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., ... & Stewart, L. A. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic reviews*, 4(1), 1.
- Onsongo, E. K., & Knorrinda, P. (2025). Comparing frugality and inclusion in innovation for development: Logic, process and outcome. *Innovation and Development*, 15(3), 621-641.
- Prahalad, C. K. (2012). Bottom of the pyramid as a source of breakthrough innovations. *Journal of product innovation management*, 29(1), 6-12.
- Prahalad, C. K. (2012). The fortune at the bottom of the pyramid.
- Rosca, E., Arnold, M., & Bendul, J. C. (2017). Business models for sustainable innovation—an empirical analysis of frugal products and services. *Journal of Cleaner Production*, 162, S133-S145.
- Sarkar, S., & Mateus, S. (2022). Doing more with less-How frugal innovations can contribute to improving healthcare systems. *Social Science & Medicine*, 306, 115127.
- Teece, D. J. (2010). Business models, business strategy and innovation. *Long range planning*, 43(2-3), 172-194.
- Weyrauch, T., & Herstatt, C. (2019). What is frugal innovation?. In *Frugal Innovation* (pp. 3-39). Routledge.
- Winterhalter, S., Zeschky, M. B., Neumann, L., & Gassmann, O. (2017). Business models for frugal innovation in emerging markets: The case of the medical device and laboratory equipment industry. *Technovation*, 66, 3-13.
- Wooldridge, A. (2010). First break all the rules: The charms of frugal innovation. *The Economist*, 1(4), 3-5.
- Wooldridge, A. (2010). The world turned upside down. A special report on innovation in emerging markets. *The Economist*, 15.
- Zeschky, M., Widenmayer, B., & Gassmann, O. (2011). Frugal innovation in emerging markets. *Research-Technology Management*, 54(4), 38-45.

ANTIBIOTIC UTILIZATION AND PRESCRIPTION PRACTICES: A RETROSPECTIVE ANALYSIS OF ANTIBIOTIC CONSUMPTION IN 2022

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Abstract

Introduction. The increasing global burden of antimicrobial resistance has highlighted the importance of monitoring antibiotic utilization in healthcare systems. Surveillance of antibiotic consumption and prescribing practices is essential for identifying potential overuse, optimize treatment strategies, and support antimicrobial stewardship programs.

Despite the growing concern, data on antibiotic consumption at the institutional level remain limited in many healthcare settings. This paper aims to evaluate antibiotic utilization patterns, prescription frequency, and economic burden associated with antibiotic usage during 2022.

Methodology. We have conducted a retrospective analysis using pharmacy and prescription data for antibiotics usage in 2022. The dataset includes information on antibiotic class, specific drug formulations, consumption quantities, prescription numbers, and associated treatment costs. We applied descriptive statistical analysis to assess consumption trends, identify the most prescribed antibiotics, and evaluate the distribution of antibiotic use across pharmacological classes. In addition, we carried out a literature review to provide a broader context for the study.

Results and Discussion. During the study period, penicillin represented the most frequently used antibiotic class, while, among individual antibiotics, the most frequently used agents included amoxicillin–clavulanic, ciprofloxacin, tetracycline, and azithromycin. We have calculated the average treatment cost per patient about 900 ALL, indicating a substantial economic burden associated with antimicrobial therapy.

Conclusions. Evidence on antibiotic consumption patterns and their economic implications remains limited in many healthcare settings, particularly in Albania and in the local context of the city of Elbasan.

Keywords: Antibiotics, Antimicrobial Resistance, Consumption Patterns, Prescriptions, Stewardship

Introduction

Antibiotics remain essential for treating bacterial infections and saving lives. Their misuse in clinical practice has accelerated the emergence of resistant pathogens, reducing the effectiveness of standard treatments and increasing the risk of complications, prolonged hospital stays, and higher mortality.

Antimicrobial resistance (AMR), which weakens our ability to treat infections and leads to the rise of hard-to-control “superbugs,” has become an increasing public health concern over the past decade. Often described as a silent pandemic, it already causes around 700,000 deaths each year (O’Neill, 2018). If left unaddressed, AMR could result in millions more deaths (potentially up to 10 million annually by 2050) surpassing cancer, which is currently the world’s second leading cause of death (Kostev, et al., 2025).

Naghavi, et al., (2024) stated that between 1990 and 2021, the number of deaths caused by antimicrobial resistance dropped by more than half in children under the age of five, while it rose by over 80% among individuals aged 70 and above. On a global scale, Methicillin-resistant *Staphylococcus aureus* experienced the most significant rise. Among Gram-negative organisms carbapenem resistance showed the greatest increase among Gram-negative bacteria. Moreover, forecasts indicate that, by 2050, about 1.91 million deaths caused by antimicrobial resistance and 8.22 million associated deaths may happen globally, with the sharpest increase occurring among individuals aged 70 years or older (Naghavi, et al., 2024). The increasing global burden of antimicrobial resistance has become a major challenge for healthcare systems, which was driven largely by the inappropriate and excessive use of antibiotics.

Data from a European primary care study indicate that antibiotic prescribing rose from 3.5% in 2022 to 4.0% in 2023, representing a relative increase of approximately 0.5%. This upward shift suggests that the reduction in antibiotic use observed during the pandemic period may be giving way to a renewed increase, driven in part by the resurgence of infectious diseases in the post-pandemic period. Data from a European primary care study indicate that antibiotic prescribing rose from 3.5% in 2022 to 4.0% in 2023, representing a relative increase of approximately 0.5%. This upward shift suggests that the reduction in antibiotic use observed during the pandemic period may be giving way to a renewed increase, driven in part by the resurgence of infectious diseases in the post-pandemic period (Koh, et al., 2025).

Kostev et al. (2025) analyzed outpatient antibiotic prescription trends across six European countries (Germany, France, Italy, Belgium, the United Kingdom, and Poland) over the period 2021 to 2024. They found a clear and substantial rebound in antibiotic prescribing following the COVID-19 pandemic, attributed primarily to the resurgence of respiratory infections such as influenza, respiratory syncytial virus, and invasive Group A *Streptococcus*.

Furthermore, the most pronounced increases were observed among children and adolescents, with paediatric antibiotic use rising by 30% to 76% across countries in 2022 (Kostev, et al., 2025).

In this context, understanding patterns of antibiotic utilization and prescribing behaviour is critical. Pharmacy data offer a valuable and reliable source of information for assessing how antibiotics are actually used in real-world settings. Such data enable the identification of trends in prescription frequency, the choice of antibiotic classes, and potential deviations from clinical guidelines, providing important insights into both rational and irrational use.

Analyzing antibiotic utilization is also essential from an economic and policy perspective. In many healthcare systems, antibiotics account for a substantial share of pharmaceutical expenditures, and inappropriate prescribing contributes to unnecessary costs. Monitoring

prescription practices supports more efficient resource allocation and helps inform targeted interventions aimed at improving prescribing quality.

This paper aims to evaluate antibiotic utilization and prescription practices using pharmacy data, with a focus on identifying usage patterns, assessing potential overuse or misuse, and highlighting areas for improvement. The analysis focuses on the year 2022, selected as the first period following the acute phase of the COVID-19, in order to minimize the distortions associated with the unusually high use of antibiotics observed during the pandemic. By concentrating on this post-pandemic year, the study aims to provide a more representative picture of routine prescribing behavior and underlying utilization trends. By providing evidence on current practices, the study contributes to ongoing efforts to strengthen antimicrobial stewardship and promote the rational use of antibiotics in healthcare systems. The rest of the paper is organized as follows: Section 2 provides a review of the relevant literature; Section 3 outlines the methodology; Section 4 presents and discusses the results; and Section 5 concludes.

Literature review

Antimicrobial resistance (AMR), has emerged as a major global public health threat, due to inappropriate use and overuse of antibiotics. Understanding patterns of antibiotic utilization and prescribing behavior is particularly important in developing countries such as Albania. Existing literature highlights that antibiotic misuse is a multifaceted issue involving both healthcare professionals and the general population. This section reviews empirical evidence on antibiotic knowledge, attitudes, and practices in Albania and the wider Western Balkans, with a focus on identifying persistent gaps between awareness and behavior, as well as systemic challenges in prescribing practices.

Starting with knowledge and awareness, both Hoxha et al., (2018) and Bushi et al., (2024) show that basic awareness of antibiotics is relatively high. Pharmacists already demonstrated strong understanding of key facts as early as 2010, while more recent population-based studies report that a large majority of individuals have heard of antibiotics and even antimicrobial resistance

Hoxha et al., (2018) noted that the majority of the pharmacist’s community knew the fact that antibiotics do not work against influenza (93%) and that colds are viral (54%). Although many understood key facts, such as the risk of anaphylaxis with penicillin’s (92.5%) and that antibiotics kill bacteria (74%), significant gaps persisted. Notably, 93% reported having no treatment protocols to guide their practice. some misconceptions remained, 18% believed antibiotics help if a cold lasts over four days, and only 13% recognized their ineffectiveness against viruses.

Bushi et al., (2024) provides further evidence that awareness alone is insufficient to ensure appropriate antibiotic use, as problematic behaviors such as self-medication and misuse remain widespread in the Albanian context. Still misconceptions remain widespread because a considerable proportion of participants believe that antibiotics can be used to treat viral infections such as common cold or flu, indicating persistent misunderstanding. Their results indicate that around 90% of respondents have heard of antibiotics, showing very high basic awareness. However, about 40-50% of participants believe that antibiotics are effective against viral infections such as the common cold or flu. In terms of behavior about one-third to nearly half of respondents report using antibiotics without a prescription, confirming the persistence of self-medication practices. Additionally, about 30-40% of individuals reports stopping antibiotic treatment early, once symptoms improve, instead of completing the full course. Regarding antibiotic resistance, around 70-80% of respondents report having heard of it, but

only a smaller proportion demonstrate correct understanding of its causes, particularly the link with misuse and overuse (Bushì et al., 2024).

Bozo et al., (2024) report evidence on antibiotic use and self-medication practices in Albania, particularly in the post-COVID-19 context. They identify a clear gap between awareness and behavior. Although 78% of respondents reported being aware of antibiotic resistance, more than half still engaged in self-medication.

The large majority of the sample⁶⁰ have completed university education (93.3%), indicating a highly educated sample. The findings show that 53.4% of respondents reported using antibiotics without a prescription, pointing to a widespread practice of self-medication.

Furthermore, 82.3% of participants reported using antibiotics to treat symptoms such as flu, cold, cough, or fever, conditions that are typically viral and do not require antibiotic treatment. This is aligned with Bushì et al., (2024) where a substantial proportion of individuals still believe antibiotics are effective against viral infections and report using them without prescription.

Even earlier evidence from Hoxha et al., (2018) shows similar misconceptions among pharmacists, indicating that this gap between knowledge and practice has been persistent over time rather than improving.

Another perspective comes from an 11-year study of Hoxha et al., (2023), from 2011-2021. Antibiotic use decreased from 27.4 DIDs (defined daily doses per 1,000 people per day) in 2011 to 18.8 DIDs in 2019, likely due to improvements in healthcare systems, living standards, and infrastructure, but increased again after 2019, particularly during the COVID-19 pandemic. There was also a notable shift toward higher use of *Watch*⁶¹ antibiotics, raising concerns about inappropriate prescribing. To tackle these issues, it is essential to strengthen national action plans, implement antimicrobial stewardship programs in hospitals, improve education for healthcare professionals, and enhance monitoring systems to ensure more rational antibiotic use.

This pattern extends beyond the general population to healthcare professionals. Other researchers focusing on dental practice shows similar patterns that persist even among healthcare professionals. Studies on dentists reveal that inappropriate prescribing is not only a public behavior issue but also a clinical practice concern, reinforcing the systemic nature of antibiotic misuse (Zeza, et al., 2024) (Eriksen, et al., 2025) (Manciocchi, et al., 2024). The study by Zeza et al., (2024) shows that antibiotic use is widespread in dental care in Albania, with patients frequently exposed and raising concerns about resistance and allergies, highlighting dentistry as a key channel of antibiotic consumption. Similarly, Eriksen et al., (2025) find that Albanian dentists prescribe antibiotics regularly (often weekly) with evidence of overprescribing and incorrect dosages, indicating that misuse is embedded in routine practice.

Another recurring pattern is the persistence of inappropriate prescribing and use across different settings, including pharmacies, households, and clinical environments.

The Mihani & Këlliçi (2018) study reviewed 904 antibiotic prescriptions for children aged 0–15 collected from 25 pharmacies in Tirana between December 2015 and January 2016. Slightly more than half of the patients were girls, and children aged 2–6 were the most affected group. Most prescriptions were for respiratory tract infections, especially bronchitis, followed by tonsillitis and bronchopneumonia. The findings showed frequent use of broad-spectrum antibiotics and generally short treatment durations, sometimes lasting two days or less. The

⁶⁰ Sample of 519 individuals, with 70.1% female respondents and more than half of participants (55.5%) belong to the 18-30 age group.

⁶¹ Watch" antibiotics are a category in the WHO's AWaRe classification system (Access, Watch, Reserve). They're antibiotics that work against a broader range of bacteria but carry a higher risk of promoting antibiotic resistance.

study suggests improving prescription monitoring systems and increasing awareness among healthcare professionals and patients to help prevent antibiotic resistance.

These concerns around paediatric antibiotic use in Albania reflect a broader global challenge. Children and newborns are especially vulnerable to antimicrobial resistance, but developing antibiotics for them is challenging. In late 2022, the WHO launched the Pediatric Drug Optimization (PADO) exercise to identify and prioritize antibiotics for research and development in children, particularly in high-burden regions. The process created priority and watch lists of antibiotics and aimed to guide efficient use of resources. Overall, the initiative promotes global collaboration to improve children's access to essential medicines. In 2016, ARM was responsible for 214,000 deaths among newborns alone, and by 2019, roughly one in five deaths linked to antimicrobial resistance occurred in children under five years old. Despite this growing burden, very few new antibiotics or child-friendly formulations have been developed or approved for use in neonates and children. However, since the completion of the PADO (Pediatric Drug Optimization) antibiotics initiative, notable progress has been achieved, demonstrating that focused efforts can speed up action and improve coordination among stakeholders (Bamford, et al., 2024).

At the regional level, the Badrov et al., (2024) study of 795 dentists across the Western Balkans reports relatively high knowledge (average score 6.4/8), but persistent inappropriate prescribing. Between 9.7% and 25.4% of dentists prescribe antibiotics at patient request, while only 48–66% feel adequately trained, pointing to gaps between knowledge and practice. Almost, 22.3% of Croatian, 25.4% of Serbian, and 9.7% of Bosnian dentists report prescribing antibiotics at patients' request. In addition, only 48–66% of dentists feel adequately trained in antibiotic use, suggesting gaps in professional education (Badrov, et al., 2024).

Awareness on antibiotics and antimicrobial resistance in Albania is relatively high, yet this awareness has not translated into appropriate use. Self-medication, incomplete treatment courses, and over-reliance on broad-spectrum antibiotics remain widespread, not only among the general population but also among healthcare professionals across multiple clinical settings. These patterns have persisted over time and are not unique to Albania, as similar trends are observed across the Western Balkans.

Methodology

This study adopts a cross-sectional design to analyse outpatient antibiotic prescription and utilization patterns based on pharmacy dispensing data. The analysis draws on prescription records capturing anonymized dispensing information from the participating pharmacy over the year 2022. The dataset includes patient-level variables antibiotic type dispensed, and prescription date.

All analyses in this study are descriptive and consistent with the structure of the available data, which are organized at the aggregate level. Results are presented as absolute patient counts and proportions. Findings are therefore interpreted on the basis of the magnitude and consistency of observed changes rather than statistical significance thresholds.

Results and discussion

We collected a total number of 1600 prescriptions from ‘Mars Pharma’ pharmacy for the year 2022. The total sale of antibiotics reached 13,382 units (reflecting significant consumption) and a total cost of 1,793,865 ALL. On average, each prescription cost around 901.95ALL, providing insight into the typical expense associated with individual antibiotic use during the year. In Table 1 we present annual consumption and cost. The most used antibiotics by class are penicillin's 4765 units, fluoroquinolones 2652 units, cephalosporin's 2139 units,

macrolides 1928 units, tetracycline’s 1129 units. As we can see cephalosporin’s account for the highest expenditure at 836,095 ALL making them the costly class by a large margin. This is followed by fluoroquinolones, which cost 411,176 ALL and macrolides at 346,15 ALL both representing substantial portions of the total spending. Penicillin’s, despite being commonly used, have a much lower annual cost of 128,529 ALL indicating they are relatively inexpensive. The “others” category contributes a modest 63,094.8 ALL to the total cost, while tetracycline’s have the lowest expenditure at just 8,815 ALL.

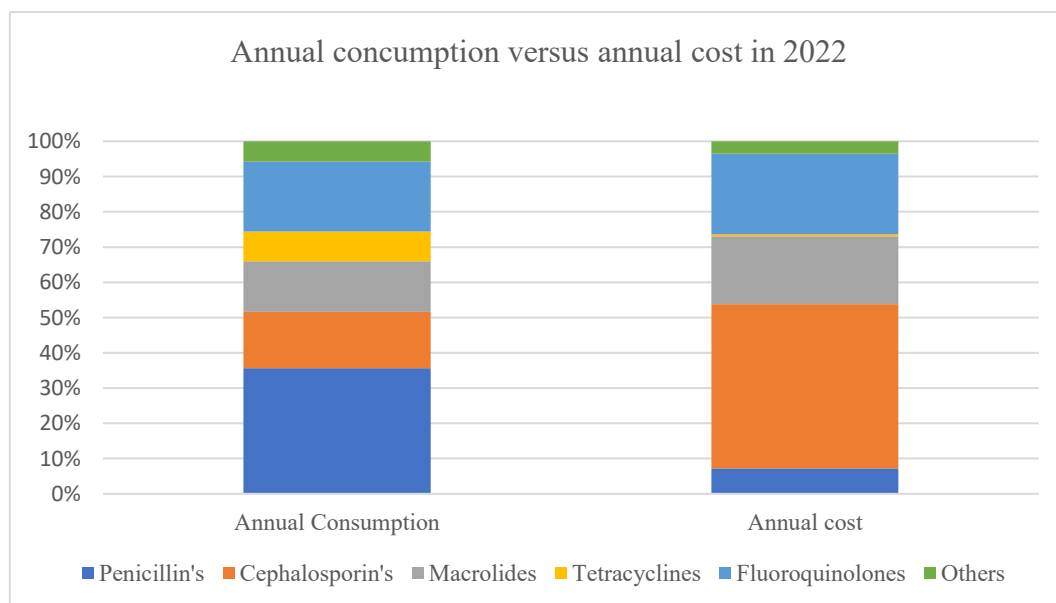
Table 1 Annual costs and prescriptions in 2022

Antibiotic class	Annual Consumption	%	Annual cost	%
Penicillin's	4765	36%	128529	7%
Cephalosporin's	2139	16%	836095	47%
Macrolides	1928	14%	346155	19%
Tetracyclines	1129	8%	8815	0%
Fluoroquinolones	2652	20%	411176	23%
Others	769	6%	63094.8	4%

Note: Author’s calculation

Figure 1 shows a comparison between annual consumption and annual cost revealing a clear imbalance between usage and spending. Penicillin’s account for the largest proportion of consumption, at roughly one-third, yet contribute only a small fraction of the total cost, indicating that they are widely used but relatively inexpensive. In contrast, cephalosporin’s represent a much smaller share of consumption but dominate overall costs, making up around two-thirds of total spending, which suggests they are significantly more expensive per unit. Macrolides and fluoroquinolones display a more proportional relationship between consumption and cost, each contributing moderately to both. Meanwhile, tetracycline’s and other antibiotics make up only a small percentage of both usage and expenditure.

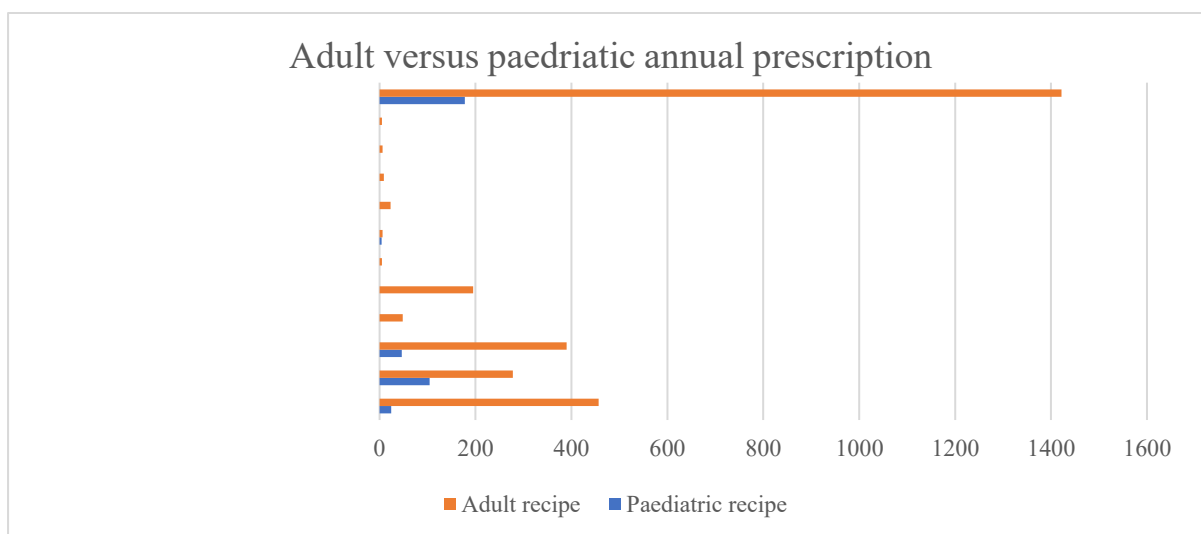
Figure 9 Consumption versus costs



Note: Author’s calculation

In Figure 2 we compare the prescriptions given to children (178 recipes) and adults (1422 recipes). Adults receive a wider variety and higher volume of antibiotics, while children (under 12 years) are treated more conservatively with safer and more targeted options. In paediatric cases, cephalosporin’s are the most frequently prescribed, whereas penicillin’s and macrolides are more common in adults. Additionally, certain antibiotics are not prescribed to children at all like tetracycline’s, fluoroquinolones, aminoglycosides, glycol-peptides. Our results show a strong imbalance toward adult antibiotic use, both in volume and diversity.

Figure 2 Prescription for children and adults in 2022



Note: Author’s calculation

Conclusion

In conclusions, the patterns of antibiotic consumption observed in 2022 raise important concerns regarding antibiotic resistance. The high overall use of antibiotics, particularly broad-spectrum classes such as cephalosporin’s and fluoroquinolones, may contribute to the development and spread of resistant bacterial strains. Although penicillin’s class is the most frequently used, their relatively lower cost and often narrower spectrum make them a more appropriate first-line option in many cases when used correctly.

The disproportionately high expenditure on cephalosporin’s suggests a preference for more expensive, broad-spectrum agents, which can accelerate resistance if overused or prescribed inappropriately. Similarly, the substantial use of fluoroquinolones is concerning, as this class is strongly associated with the emergence of resistant pathogens.

Prescribing patterns vary considerably between adults and children. Adults are given a greater quantity and a wider range of antibiotics, whereas prescribing in children is more limited and focused on safer choices. In children, cephalosporin’s are the most commonly used, while in adults, penicillin’s and macrolides are more frequently prescribed, likely due to differences in treatment guidelines and safety concerns. Additionally, some antibiotic classes are entirely excluded to be used in children, mainly because of potential side effects or contraindications. Overall, antibiotic use in children appears to be more rational and regulated, supporting safer treatment while contributing to efforts to reduce antimicrobial resistance.

These findings highlight the urgent need for antimicrobial stewardship programs, stricter prescribing guidelines, and increased awareness among healthcare professionals. Most of the

recipes are given by the doctors without laboratory tests. Promoting the rational use of antibiotics favoring narrow-spectrum agents when appropriate and limiting unnecessary prescriptions can help slow the progression of antibiotic resistance while also reducing healthcare costs.

Selected staff members should be designated as leaders in antibiotic stewardship, responsible for overseeing and reviewing prescribing practices, guiding colleagues on the appropriate use of antibiotics, and offering immediate feedback to support optimal decision-making.

Educating the patient to complete the full course as prescribed, to avoid using leftover antibiotics from previous treatments and never self-prescribe or take antibiotics without medical guidance.

Promoting infection prevention through vaccination campaigns (e.g., flu, pneumococcal) reduces bacterial infections that require antibiotics, while improving personal hygiene practices (e.g., handwashing, maintaining clean clinics) lowers overall infection rates.

References

- Kenga, D. B., Sacarlal, J., Sidat, M., Chicamba, V., Kenga, A. N., Manjate, Y., Myers, H., Pololo, R., Kampa, K. T., & Moon, T. D. (2026). Knowledge, attitudes, and practices of antimicrobial resistance and stewardship among pediatric health professionals in Maputo, Mozambique. *Antimicrobial Resistance & Infection Control*. <https://doi.org/10.1186/s13756-026-01729-4>
- Koh, S. W. C., Low, S. H., Goh, J. C., & Hsu, L. Y. (2025). Increase in Antibiotic Utilisation in Primary Care Post COVID-19 Pandemic. *Antibiotics*, 14(3). <https://www.mdpi.com/2079-6382/14/3/309>
- O'Neill, J. (2018). Tackling drug-resistant infections globally: final report and recommendations 2016.
- Kostev, K., Upadhyaya, S., Utsch, O., Sosnowska, K., Konrad, M., & Tanislav, C. (2025). Antibiotic Prescription Patterns in the Post-COVID-19 Era in Six European Countries: A Cross-Sectional Study. *Antibiotics*, 14(9), 911. <https://doi.org/10.3390/antibiotics14090911>
- Naghavi, M., Vollset, S. E., Ikuta, K. S., Swetschinski, L. R., Gray, A. P., Wool, E. E., Aguilar, G. R., Mestrovic, T., Smith, G., Han, C., Hsu, R. L., Chalek, J., Araki, D. T., Chung, E., Raggi, C., Hayoon, A. G., Weaver, N. D., Lindstedt, P. A., Smith, A. E., ... Murray, C. J. L. (n.d.). *Global burden of bacterial antimicrobial resistance 1990–2021: A systematic analysis with forecasts to 2050*. Retrieved 23 March 2026, from [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(24\)01867-1/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)01867-1/fulltext)
- Hoxha, Iris, Admir Malaj, Besmira Kraja, Silvia Bino, Margaret Oluka, Vanda Marković-Peković, and Brian Godman. "Are pharmacists' good knowledge and awareness on antibiotics taken for granted? The situation in Albania and future implications across countries." *Journal of global antimicrobial resistance* 13 (2018): 240-245. <https://www.sciencedirect.com/science/article/abs/pii/S2213716518300213?via%3Dihub>
- Bozo, Silvi, Elena Capparelli, and Eftiola Pojani. "A cross-sectional analysis of antibiotic use: Attitudes and practices in the Albanian community." *Clinical Epidemiology and Global Health* 28 (2024): 101658. [https://cegh.net/article/S2213-3984\(24\)00154-4/fulltext](https://cegh.net/article/S2213-3984(24)00154-4/fulltext)
- Bushi, Eni, Zehadin Gashi, and Ledjan Malaj. "Evaluation of the Knowledge, Attitude and Public Awareness about the Use of Antibiotics and Antibiotic Resistance in Albania." *Ind. J. Pharm. Edu. Res* 58, no. 1 (2024): 316-325. *Ind. J. Pharm. Edu. Res.*, 2024; 58(1):316-325. [Ind. J. Pharm. Edu. Res., 2024; 58\(1\):316-325. https://www.ijper.org](https://www.ijper.org)
- Hoxha, Iris, Brian Godman, Admir Malaj, and Johanna C. Meyer. "11-year trend in antibiotic consumption in a south-eastern European country; the situation in Albania and the implications for the future." *Antibiotics* 12, no. 5 (2023): 882. <https://www.mdpi.com/2079-6382/12/5/882>
- Zeza, B., Kraja, N., Disha, V., Cenameri, E., & Bardhoshi, E. (2024). Self-Reported Antibiotics Usage, Allergies and Resistance of Albanian Patients from a Dental Perspective: A Preliminary Questionnaire-Based Survey. *Antibiotics*, 13(11). <https://www.mdpi.com/2079-6382/13/11/1057>
- Eriksen, N., Shpati, K., Mërkuri, L., Shpati, D., & Shapo, L. (2025). Attitudes on antibiotic prescription and antimicrobial resistance awareness: A cross-sectional study among Albanian dentists. *The Journal of Infection in Developing Countries*, 19(06), 861–869. <https://doi.org/10.3855/jidc.20858>

- Manciocchi, E., Xhajanka, E., D’Addazio, G., Tafuri, G., Santilli, M., Rexhepi, I., Caputi, S., & Sinjari, B. (n.d.). Antibiotic prescribing patterns among dentists in Italy and Albania: A comparative questionnaire analysis. Retrieved 27 March 2026, from [https://www.cell.com/heliyon/abstract/S2405-8440\(24\)09606-3](https://www.cell.com/heliyon/abstract/S2405-8440(24)09606-3)
- Badrov, M., Marovic, D., & Tadin, A. (2024). Antibiotics Knowledge and Prescription Patterns Among Dental Practitioners in Croatia, Bosnia and Herzegovina, and Serbia: A Comparative E-Survey with a Focus on Medically Healthy and Compromised Patients. *Antibiotics*, 13(11). <https://www.mdpi.com/2079-6382/13/11/1061>
- Bamford, Alasdair, Tiziana Masini, Phoebe Williams, Mike Sharland, Valeria Gigante, Devika Dixit, Hatim Sati et al. "Tackling the threat of antimicrobial resistance in neonates and children: outcomes from the first WHO-convened Paediatric Drug Optimisation exercise for antibiotics." *The Lancet Child & Adolescent Health* 8, no. 6 (2024): 456-466. [https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642\(24\)00048-8](https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(24)00048-8)
- Mihani, Joana, and Suela Këlliçi. "Patterns of antibiotic prescription in children: Tirana, Albania Region." *Open access Macedonian journal of medical sciences* 6, no. 4 (2018): 719. <https://pmc.ncbi.nlm.nih.gov/articles/PMC5927510/>

DIGITAL CADASTER, NEW PERSPECTIVES AND CHALLENGES IN ALBANIA

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Abstract

The Digital Cadaster in Albania represents a critical shift from a legacy, paper-based land administration system to a centralized, multi-purpose GIS-driven infrastructure. As the country moves toward full digitalization through the State Authority for Geospatial Information (ASIG) and the National Agency of the Cadaster (ASHK), this transition offers new perspectives on economic development and European Union integration.

From a modern perspective, the Digital Cadaster serves as the backbone for secure property rights, which is essential for stimulating the real estate market and attracting foreign direct investment. By integrating blockchain potential and cloud computing, the system aims to eliminate bureaucratic overlap, reduce corruption, and provide citizens with real-time access to titles via the e-Albania portal. Furthermore, it enables "Smart City" initiatives by providing precise spatial data for urban planning, infrastructure management, and environmental monitoring.

However, this digital evolution faces significant challenges. Historically, Albania has struggled with overlapping land claims and informal settlements, issues that digital tools can identify but not inherently resolve without robust legal adjudication. Technical barriers also persist, including the need for high-accuracy geodetic networks and the harmonization of fragmented datasets from different eras. Moreover, cybersecurity remains a paramount concern; protecting sensitive land ownership data against breaches is vital for maintaining public trust. Finally, bridging the digital divide ensures that rural populations can navigate these new electronic services. Successfully navigating these hurdles requires not only technological investment but also a comprehensive legal framework to ensure that the digital record reflects the true legal reality on the ground.

Keywords: Digital Cadaster, Albania, Land Administration, Cadastral Digitization, ASHK, ASIG

1. Introduction

Land administration supports property rights, urban and rural planning, investment security, and sustainable development. Albania has embarked on an ambitious cadaster digitization and integration program to modernize land records, streamline services, and strengthen legal certainty for citizens and investors. Recent institutional roadmaps and donor-supported projects aim to convert legacy paper cartels and maps into a centralized digital land information system while improving data quality and public access. This paper maps the current landscape, highlights new perspectives opened by digital cadaster technologies, and analyzes the main technical, legal, and organizational challenges for Albania's transition.

2. Background and Recent Developments

Institutional context

The State Cadaster Agency (Agjencia Shtetërore e Kadastrës, ASHK) and the National Geospatial Infrastructure (ASIG) are central actors in Albania’s geospatial and cadastral modernization. ASHK’s institutional guidance for 2025–2028 sets a strategic vision for a fully integrated, accurate, and transparent digital cadaster, emphasizing legal security, interoperability, and alignment with EU standards.

Major projects and international support

International partners and technical assistance have played a pivotal role. Projects led by Cadaster International and EU Property Rights Program components have focused on quality control of digitized property data, development of a central land information system (ACLIS), and capacity building for data migration and standards. Commercial and bespoke solutions such as iKadaster have been introduced to support mass registration, field survey workflows, and mobile data capture.

National Geospatial Assets

The National Geoportal and ASIG services provide orthophotos, cadastral parcel layers, administrative boundaries, and other thematic datasets that are essential inputs for a digital cadaster and for cross-sectoral applications such as urban planning and disaster risk management. These datasets form the backbone of a National Spatial Data Infrastructure (NSDI) that supports interoperability and public access.

3. New Perspectives Enabled by a Digital Cadaster

Improved legal certainty and service delivery

Digitization reduces transaction times, minimizes manual errors, and enables instant delivery of legalization decisions and property documents through platforms such as e-Albania. This shift enhances transparency and reduces opportunities for corruption in property transactions.

Data integration and multi-sectoral use

A centralized digital cadaster enables integration with tax, planning, utilities, and environmental datasets, unlocking value for public administration and private sector investment. Interoperable cadastral data supports evidence-based territorial planning, infrastructure siting, and climate resilience measures.

Fit-for-purpose approaches and scalable digitization

Adopting **fit-for-purpose** principles allows Albania to prioritize rapid, affordable registration methods for areas with incomplete records while progressively improving geometric accuracy and legal documentation. Mobile data capture tools and phased quality control enable large-scale first registration within constrained budgets.

Enhanced public access and e-services

Integration with national e-government portals provides citizens with secure, immediate access to cadastral documents and legalization outcomes, reducing administrative burden and improving trust in public institutions.

4. Key Challenges

Data quality, legacy records, and heterogeneity

Legacy paper cartels, inconsistent map scales, and fragmented historical records present major obstacles to reliable digitization. Ensuring consistent attribute schemas, resolving conflicting ownership claims, and harmonizing geometric accuracy across datasets require robust quality control protocols and significant human expertise.

Legal and procedural complexity

Incomplete or ambiguous legal documentation, restitution cases, and overlapping claims from privatization periods complicate automated registration and require legal adjudication. The cadaster must be supported by clear procedural rules for first registration, dispute resolution, and the legal status of digitized records.

Institutional coordination and governance

Multiple institutions (ASHK, IPRO, ASIG, municipalities) must coordinate data flows, responsibilities, and service delivery. Weak inter-agency workflows and unclear mandates can slow implementation and undermine data integrity. Effective governance models and memorandums of understanding are essential.

Technical capacity and human resources

Digitization, quality control, and system maintenance require skilled surveyors, GIS specialists, database administrators, and legal experts. Scaling these capacities nationwide demands sustained training programs and retention strategies.

Financing and sustainability

Initial donor funding can catalyze digitization, but long-term sustainability requires predictable national financing, cost-recovery mechanisms for services, and investment in system upgrades. Designing a sustainable business model for the cadaster is a strategic priority.

Cybersecurity and data privacy

As cadastral systems move online and integrate with e-government platforms, cybersecurity, access control, and privacy protections become critical. Secure delivery of legalization decisions and protection of personal data must be embedded in system design.

5. Discussion: Balancing Ambition and Pragmatism

Albania's strategic documents and international projects articulate an ambitious timeline for full digitization and initial registration. Success depends on balancing technical rigor with pragmatic, phased implementation. Priorities should include: (1) establishing minimum data and metadata standards; (2) implementing robust quality control and validation workflows; (3) piloting fit-for-purpose registration in high-priority regions; (4) strengthening legal frameworks for digital records; and (5) investing in human capital and institutional coordination. International partners can provide technical assistance, but national ownership and financing are essential for long-term resilience.

6. Policy and Technical Recommendations

Adopt clear data and interoperability standards

Define and publish national cadastral data standards and metadata requirements aligned with INSPIRE and EU best practices to ensure interoperability across agencies and with the NSDI.

Implement staged digitization with QC checkpoints

Use a phased approach: pilot areas → mass digitization with mobile capture → centralized migration → continuous QC and correction. Embed automated and manual quality control at each stage.

Strengthening legal frameworks for digital evidence

Amend or clarify laws to recognize digitized cartels and electronic legalization decisions as legally binding records and define procedures for resolving legacy disputes in the digital era.

Build institutional capacity and governance mechanisms

Establish inter-agency governance bodies, clear SLAs for data exchange, and a national training program for cadastral professionals. Consider a permanent digitization center with regional hubs.

Ensure cybersecurity and citizen privacy

Adopt strong authentication, role-based access, encryption, and audit trails for cadastral systems. Integrate privacy-by-design principles and public communication strategies to build trust.

Design sustainable financing

Combine public funding, modest service fees, and targeted donor support to finance initial digitization and ongoing maintenance. Explore value-capture mechanisms where cadastral data directly supports revenue generation.

7. Conclusion

Albania stands at a key moment in modernizing its land administration through a digital cadaster. The combination of national strategic guidance, international technical assistance, and emerging digital tools creates a realistic pathway to improved legal certainty, efficient public services, and stronger foundations for economic development. Realizing this potential requires confronting entrenched data quality issues, legal complexities, institutional fragmentation, and sustainability concerns. A pragmatic, standards-based, and phased approach—backed by capacity building, governance reforms, and secure e-service delivery—can transform cadastral systems into a durable public good that supports Albania’s EU integration and development goals.

References

- ASHK Udhërrëfyty i digjitalizimit 2025–2028. Agjencia Shtetërore e Kadastrës strategic guidance document. [ashk.gov.al](https://www.ashk.gov.al/wp-content/uploads/2025/07/Udherrefyety-i-Digjitalizimit-te-Agjencise-Shteterore-te-Kadastres.pdf), <https://www.ashk.gov.al/wp-content/uploads/2025/07/Udherrefyety-i-Digjitalizimit-te-Agjencise-Shteterore-te-Kadastres.pdf>
- Kadaster International. Albania: Quality control for property data digitization. Project summary and outcomes. [kadaster.com](https://www.kadaster.com/our-projects/albania), <https://www.kadaster.com/our-projects/albania>
- ASIG Geoportal. National geospatial datasets and NSDI services. [Geoportal ASIG](https://geoportal.asig.gov.al/en), <https://geoportal.asig.gov.al/en>

iKadaster — Support Immovable Property registration. System description and functional features for Albania. kadaster.al, <https://kadaster.al/en>

Development and challenges of land administration in Albania. Scholarly review of institutional and technical issues. [Academia.edu](https://www.academia.edu/19638509/Development_and_challenges_of_land_adminis),

https://www.academia.edu/19638509/Development_and_challenges_of_land_adminis
[tration in Albania](https://www.academia.edu/19638509/Development_and_challenges_of_land_adminis)

Digital Cadaster: Legalization decisions now available on e-Albania. News report on e-service integration and citizen delivery. [Radio Televizioni Shqiptar](https://rtsh.al/rti/en/digital-cadastre-legalization-decisions-now-available-on-e-albania), <https://rtsh.al/rti/en/digital-cadastre-legalization-decisions-now-available-on-e-albania>

REGIONAL DEVELOPMENT AND ECONOMIC CONVERGENCE IN THE GREEN TRANSITION: A SYSTEMATIC LITERATURE REVIEW OF INTEGRATED AGRO-PROCESSING, TOURISM, AND WATER SYSTEMS IN DEVELOPING COUNTRIES

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Abstract

As developing nations seek sustainable growth, integrating agro-processing, tourism, and water systems achieves inclusive development and resource efficiency. This study used a Systematic Literature Review to find frameworks for green transitions. Case analyses from India, Indonesia, China, Mexico, Brazil, South Africa, and the COMESA region show that integrated efforts boost local incomes and environmental benefits. Incorporating agritourism promotes technology and optimises the use of skilled labour. Circular economy models in agritourism improve destinations and support sustainable livelihoods. Challenges include limited SME funding, water shortages, and infrastructure deficits. Overcoming these requires coordinated regional strategies. The study advocates aligning policies, training the workforce, investing in water infrastructure, and adopting circular-economy practices to improve resource management. These strategies can strengthen partnerships and advance a resilient, equitable, and sustainable green economy in developing countries.

Keywords: Agro-Processing, Green Transition, Circular Economy, Regional Development, Economic Convergence, Regional Convergence, Developing Countries, Spatial Spillovers

Introduction

A green economy is vital for developing nations dependent on natural resources. Economic convergence helps poorer regions grow, which is key to this change. Regional inequality hinders development in the Global South (Vanacker et al., 2023). Green transition strategies aim to cut environmental burdens while generating jobs and raising productivity (Salman et al., 2025). These goals arise in discussions on agro-processing, sustainable tourism, water reuse, the circular economy, and resource governance (Vanacker et al., 2023). Climate change and limited resources complicate convergence. This study reviews evidence on economic convergence and divergence during the green transition. It explores whether growth becomes more sustainable or if green reforms bring local economic benefits. The research examines the integration of agro-processing, tourism, and water management for green growth. Agro-processing increases the value of agriculture, supporting rural industry and jobs. Agritourism provides an alternative source of income and supports the environment. Sustainable water management supports both sectors and is critical for consistent growth (Zang et al., 2024). The study uses a regional analysis to clarify how these sectors work together for convergence and sustainability. A Systematic Literature Review (SLR) examines how agro-processing, tourism, and water systems advance economies in developing countries. Theoretical frameworks such as system dynamics and the circular economy explain convergence and sector collaboration (Jeyacheya & Hampton, 2020). Findings show uneven development. The green transition can help poor regions catch up or deepen existing gaps, depending on investment and coordination. Regional convergence relies on less wealthy areas raising their productivity and incomes to match those of richer areas. The green transition changes these dynamics by increasing infrastructure and market demands. The analysis identifies key areas of convergence, such as spatial resilience and efficient resource use. The review makes three arguments: First, literature indicates conditional convergence and convergence clubs are stronger in developing countries (Nguyen, 2024). Second, changes in agriculture and the rural sectors are the main drivers of convergence, more than green innovation alone (Reardon et al., 2021). Third, green transition fields support convergence but rarely assess effects on region distribution directly (Mejía-Dugand & Pizano-Castillo, 2020; Rasul & Sharma, 2015).

Regional Comparison

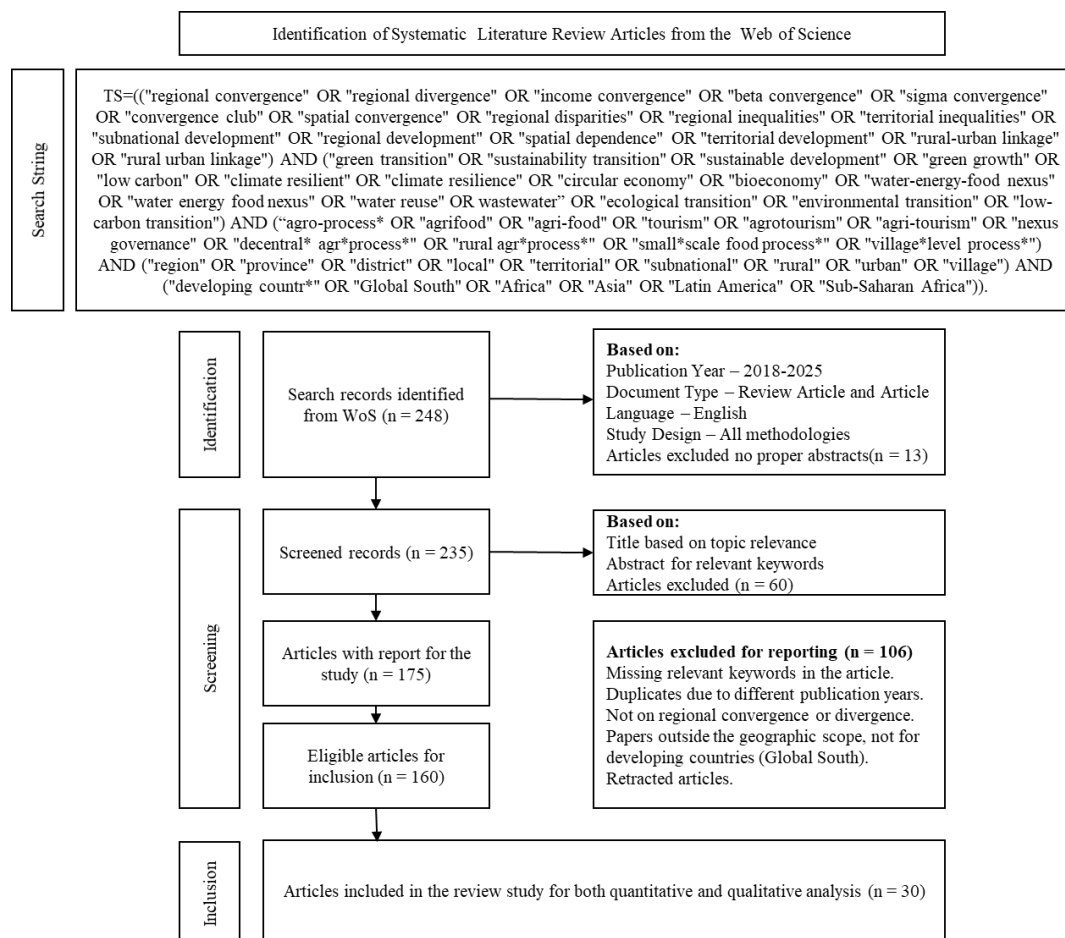
Latin America: Quintana Roo, Mexico, blends traditional Mayan agriculture with agroecological and circular-economy principles to boost rural tourism (Vanacker et al., 2023). The Agronegócio sector encourages community engagement with Sustainable Development Goals via agricultural practices (Sandoval et al., 2025). In Ecuador’s Esmeraldas Province, environmental degradation, water scarcity, and poor governance have stymied agrotourism. Asia: The Gowa Regency, Indonesia, narrows urban-rural gaps by optimising the use of natural resources within its agropolitan framework. In the Upper Citarum River Basin, a synergistic agribusiness model increases employment, supports bio-industries, and strengthens eco-tourism. Uttarakhand, India, uses government initiatives to foster circular economy practices that advance agrotourism and sustainable livelihoods. In Uzbekistan, the shift from raw exports to agro-processing has raised agricultural incomes and links Samarkand agrotourism to economic growth (Zang et al., 2024). China: Studies show that rural industrial convergence drives regional development by integrating sectors and tackling rural-urban income gaps. This progress is largely due to government support and the growth of the digital economy, which are advancing green development (Demirović et al., 2025; Fang, 2022). Africa: The Western

Cape, South Africa, uses a green-economy initiative and integrated water system to cut carbon emissions and address water scarcity (Nsan et al., 2025). Sustainable tourism supports economic integration within COMESA, despite structural barriers. In Gambia, small and medium enterprises move from subsistence to commercial agriculture by engaging with tourism supply chains. In Nigeria, blending green, grey, and blue economies creates opportunities for eco-tourism and coastal management amid challenges (Nsan et al., 2025).

Material and Methods

The research utilized a Systematic Literature Review (SLR) framework. Through Web of Science (WoS), 248 articles were initially included. SCOPUS produced only 22 articles and, lacking wildcard support, complicated further data retrieval (Christofi et al., 2021). The review followed PRISMA (Fig. 1) to minimize and eliminate bias (Harris et al., 2014; Rethlefsen et al., 2021; Page et al., 2021). Previous examples of SLRs with fewer than 100 studies include Miranda et al. (2023), Borda et al. (2023), and Othieno & Csonka (2025). Full-text studies focused on territorial development, agro-processing, and sustainability transitions (Bil19, Heb21, Big15, Jey20). The review examined regional convergence and green transition in developing countries, with emphasis on territoriality. Screening by year (2018-2025), document type (review article or article), and language (English) yielded 175 studies (Qi et al., 2022). Of these, 54 studies on the Global South, exploring regional convergence metrics and nexus governance, were adopted for analysis (Vanacker et al., 2023).

Figure 1. PRISMS Workflow



Source: Authors (2026)

Results and Discussion

The findings reveal that average convergence occurs not within individual nations but across space and regional similarity. This changes how convergence is understood and raises questions about how quickly poorer regions grow. The key question is which areas converge under certain conditions. Wealthy cities, resource-rich areas, and diverse regions tend to cluster at higher levels, while isolated or poorly connected regions end up in lower-income groups.

Table 1. Territorial Framework on Green Transition

Stream Lever	Purpose	Question	Contribution
Agro-processing, Structural, and Territorial Transformation	Identify production-side routes through which lagging regions can upgrade	How do lagging regions move into higher-value activity?	Shows the role of processing, logistics, and rural nonfarm growth
Tourism and Local Linkage	Assess whether tourism retains value locally or leaks it outward.	Does tourism spread income locally?	Explains procurement, standards, ownership, and leakage.
Nexus and Circular Economy	Examine integrated resource management as a possible support for territorial resilience.	Can integrated resource systems improve territorial resilience?	Shows gains in efficiency, productivity, and adaptation.
Green and Sustainability Transitions	Assess convergence across green performance indicators, including energy intensity, emissions, and environmental quality. Build the conceptual lens on geography, justice, and territorial embeddedness.	How should the green transition be understood across space?	Highlights geography, uneven capability, and justice.
Regional and Subnational Convergence	Establish direct evidence on catch-up. Club convergence and spatial spill-overs	Are poorer regions catching up?	Identifies beta convergence, sigma convergence, clubs, and spatial effects.

Source: Authors (2026)

The transition to green trade in lagging regions is primarily driven by agriculture, particularly **agro-processing**, which enhances incomes despite limited green transition indicators. In Uganda, an agriculture-centric growth model yields greater regional welfare gains than urban-focused strategies, despite slower aggregate growth (Kahangirwe et al., 2025; Chisika & Yeom, 2021). In India, agricultural advancements yield district-level economic convergence, surpassing the effectiveness of service-sector expansion. In the Philippines, agricultural progress fosters improvements in rural services, supported by local infrastructure. In Tanzania, crop value chain development promotes small urban centres that draw labour and services. Economic convergence is facilitated when underperforming regions evolve from raw-material suppliers to engage in processing and logistics within food value chains, particularly in Africa and South Asia. The significance of these activities lies in their spatial distribution potential compared to capital-intensive urban industries. Engagement in global agri-food value chains tends to equalize income distribution as labour transitions from low-productivity agriculture to higher-value processing and services. In Indonesia, agricultural provinces exhibit minimal linkages but demonstrate significant marginal gains from enhanced interregional sector stimulation. Research on African agro-processing suggests that improved infrastructure, supply chains, and

regulatory frameworks could facilitate more equitable regional benefits (Haile, 2025; Zang et al., 2024).

Tourism generates demand across the agri-food sector, impacting local communities and processing, but also exacerbates disparities in asset ownership, input supply, and profit distribution (Kahangirwe et al., 2025). It transforms leakages into market linkages by integrating agriculture and tourism (IAT). Evidence from various regions indicates that local sourcing is feasible only when standards and trust in buyer-supplier relationships are robust; otherwise, it leads to increased external imports and diminished economic benefits from tourism. Zambia exemplifies divergence risk, as its hospitality sector relies heavily on imports and has minimal local sourcing due to limited supply capacity. Similar patterns are observed in Vietnam and South-East Asia, where tourism generates employment and revenue, but large foreign entities often marginalize local businesses. This situation illustrates an enabling condition rather than conclusive evidence for reducing territorial inequality through convergence. Coupling Coordination and Spatial Resilience, as seen in the Yellow River Basin in China, has been recognised as a regional economic sub-engine, with beneficial spillover effects on coordinated tourism and ecological activities. Research suggests that spatial convergence is associated with economic resilience and the capacity to withstand natural disasters and human-induced shocks (Demirović et al., 2025).

Table 2. Reduction of Leakages in Tourism Convergencies

Tourism Anchor	Path to Convergence	Path for Divergence	Source(s)
Local Procurement	Tourism spending reaches nearby farmers and processors	Resorts depend on imported and other inputs	Nyikana & Tichaawa (2024) Lin et al. (2021)
Supplier Upgrading	Smallholders & SMEs enter higher-value chains	Quality & volume requirements exclude local firms	Anderson (2018)
Local Ownership	Income circulates within host regions	External investors capture profits	Hampton et al. (2018) Jeyacheya & Hampton (2020)
Destination Governance	Tourism aligns with territorial development	Enclave growth displaces local livelihoods	Jeyacheya & Hampton (2020) Chaitanya & Swain (2024)

Source: Authors (2026)

The water-food-energy nexus aims to facilitate integrated policy management, address trade-offs, and enhance local collaborations. In the Global South, particularly Sub-Saharan Africa, policy implementation is hindered by weak energy systems and financial constraints, thereby affecting economic equity (Kahangirwe et al., 2025; Qi et al., 2022). Efforts in Asian basins and transboundary contexts underscore the interplay of water, energy, food, and climate pressures in extensive territories. Studies on circular economy practices and water reuse highlight the underdeveloped nature of these regions, with wastewater reuse potentially boosting water productivity and freeing resources for higher-value applications (Jaber et al., 2025; Vanacker et al., 2023). Agri-food circularity enhances processing, nutrient recovery, and bioenergy opportunities. The challenge lies in the lack of direct measurement, with few studies examining the impact of efficiency gains on income growth in poorer regions compared with wealthier ones (Zang et al., 2024; Addai et al., 2023). Thus, nexus and circular economy research should be viewed as enabling convergence conditions rather than definitive evidence of it. Numerous studies have focused on energy intensity, environmental quality, green productivity, and sustainable development indices, evaluating the equitable diffusion of greener performance and

its indirect impact on regional income. Results indicate that environmental and green indicators exhibit spatial dependence and club convergence. In China, energy intensity convergence is amplified when spatial spill-over effects are considered. In Indonesia, capital dependence influences the convergence in environmental quality (Demirović et al., 2025). Cross-country analyses reveal club convergence in sustainable development and green growth rather than a unified global trajectory. The analysis encompasses energy, intensity, consumption, emissions, and green productivity across Africa, Indonesia, Mexico, and Latin America.

Findings

These findings are significant because they highlight a dual risk of divergence, in which regions may simultaneously lag economically and environmentally, as shown in **Table 3**. The green transition begins with sectoral and institutional changes, including cleaner production, enhanced agro-processing, circular resource use, tourism growth, climate adaptation, and nexus governance (Qi et al., 2022). These changes do not immediately impact territorial inequality; instead, they first transform production structures, interregional linkages, and local value capture. Regional convergence occurs when lagging areas enhance capabilities across all three channels, while divergence ensues when any channel is obstructed. Economic convergence amid the green transition is less contingent on the existence of green sectors and more on the territorial organization of value creation. Cleaner technologies, the circular economy, and climate-resilient governance are crucial but operate through spatially uneven capabilities, infrastructure, and institutions. Such sectors can only reduce regional disparities when they are integrated into locales capable of absorbing them, linking to broader markets, and retaining sufficient value to develop further capabilities. This elucidates why identical transitions can yield divergent territorial outcomes in convergence: agro-processing fosters the establishment of robust local and regional supplier networks; tourism promotes the integration of nearby farmers, processors, and service firms into destination value chains; and water reuse alleviates resource constraints in disadvantaged areas and expands locally productive applications (Zang et al., 2024).

Table 3. Green Transition and Cross-Country Comparative Analysis: Convergence and Divergence Channels

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Country	Evidence (E) and Indicator (I)	Convergence	Green Transition	Convergence Effects	Divergence Effects	Source(s)
Indonesia	Direct subnational convergence plus green proxy work (E) GDP per capita, Poverty and HDI (I)	Strong evidence of club convergence, spatial spill-overs at different speeds across income, poverty, HDI, and environmental quality, with a strong neighbourhood effect and HDI converging faster than income, and spatially conditioned poverty convergence.	Fragmented and best case for regional convergence to climate and environmental indicators.	Technology transfer and spill-overs support greener catch-up across neighbouring regions.	Environmental upgrading clusters in high-capacity regions, reinforcing green clubs	Aginta et al. (2023) Miranti & Mendez (2023). Miranti (2021) Gunawan (2021)
China	Green proxy convergence at the provincial scale (E)	Environmental and energy performance converge once spatial spill-overs are modelled.	Spatially mediated green upgrading with a weak direct regional income linkage	Technology transfer and spill-overs support greener catch-up across neighbouring regions.	Environmental upgrading clusters in high-capacity regions, reinforcing green clubs	Demirović et al. (2025) Jiang et al., (2018)
India	Structural transformation and district spill-overs (E)	District growth shows convergence accelerated by agricultural spill-overs	Strong evidence on agricultural change for territorial catch-up and productive deepening.	Farm gains stimulate rural services, nonfarm employment, and small urban growth.	Productivity gains are too localized or disconnected from downstream sectors.	Hazrana et al. (2019)
Vietnam	Direct provincial convergence plus tourism inclusion studies (E) Income (I)	Seven convergence clubs with spatial clustering. Income convergence is club-based and spatially clustered.	Productive and tourism transitions can create uneven regional outcomes with local value retention.	Local procurement and ownership retain spending in the host region	Imports, foreign ownership, and enclave models drive leakages	Hampton et al. (2018) Nguyen (2024)
Thailand	Direct provincial convergence (E) Income (I)	Average convergence exists with three local equilibria exhibiting spatial dependence along the nexus governance (WEF).	Strong case against relying on national averages only	Coordinated management improves sector allocation, resource efficiency, and resilience across territories.	Sectoral fragmentation and weak institutions prevent benefits from spreading.	Demirović et al. (2025) Tipayalai & Mendez (2024)
Latin America	Regional convergence plus	Slow convergence, sensitivity to sectoral	Highlights the sensitivity of territorial equality to	Regional institutions align investment,	Weak local capacity and fragmented governance	Mendez & Santos-Marquez (2022)

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	environmental proxy studies (E) Output per capita (I)	shocks and liberalization, periodic divergence, and evidence of cross-country decentralized environmental clubs.	trade and environmental policy regimes spearheading local value retention alongside spatial diffusion.	infrastructure, and the development of local capabilities.	lock in unequal trajectories, concentrating adoption in richer regions due to investment barriers and high compliance costs	Belloc & Molina (2023) D'Aoust et al (2025)
Broader Asia	Nexus Governance and Tourism (E)	Limited direct convergence testing, but strong evidence on integrated resource pressures and uneven territorial capability demands.	Useful understanding of how water, energy, food, and tourism transitions generate uneven territorial capability demands	Local procurement and ownership retain spending in the host region, ensuring resource efficiency.	Imports, foreign ownership, and enclave models drive leakages	Jeyachewa & Hampton (2020)
Africa Nations	Rural & urban linkage, agro-processing, and nexus studies (E) Regional inequality and local development (I)	Recurrent multiple equilibria, strong local heterogeneity, and neighbourhood effects on agro-value chain upgrading.	Strong evidence that agriculture, secondary towns, and regional linkages matter more than enclave growth models in deepening economic productivity.	Lagging regions move into processing, logistics, and services with stronger local multipliers.	Upgrading remains concentrated in the leading nodes, leaving peripheral regions as suppliers of raw materials.	Charpe (2023) Botai et al. (2021) Kacou (2022)

Source: Authors (2026)

Conclusions

The integration of agro-processing, tourism, and water systems facilitates regional development and economic convergence in the green transition among developing countries. Holistic management of these sectors fosters inclusive, sustainable growth by leveraging the CE and WEF nexus frameworks. The SLR analysis indicates significant regional convergence challenges, including infrastructural deficits and insufficient policy coordination and collaboration among sectors, leading to regulatory inconsistencies, inadequate data, and measurement frameworks that hamper monitoring of the inclusive green economy. Additionally, limited human capital and governmental support impede regional convergence in green-blue economy transitions. The study reveals that green transition does not guarantee territorial equality, with convergence being gradual and uneven. Spatial spillovers and local capability disparities influence the dominance of club convergence in developing regions. The potential for convergence is anchored in local transformative structures that enhance agricultural productivity, agro-processing, and urban development for economic catch-up along value chains. Tourism can aid this process by minimizing leakages, yet may also exacerbate divergence under certain ownership and supply conditions. Governance of the WEF nexus, CE, and water reuse are crucial green development tools, though their spatial impacts are often taken for granted rather than empirically validated. The analyses indicate that developing nations should invest in basin-scale infrastructure for water and renewable energy grounded in adaptive planning for sustainability in agro-processing and tourism. Effective governance requires legislation that reinforces CE principles and provides consistent metrics for policymakers, benefiting communities and promoting agritourism. The green transition is more efficacious in underperforming regions when it prioritises productive deepening over resource extraction influenced by spatial dynamics. Neighbouring growth, environmental conditions, and infrastructure shape the dissemination of transition benefits across territories. Local value retention is crucial for service-oriented green transitions, such as tourism. In the absence of local procurement and ownership, green transition growth may amplify regional output while exacerbating territorial inequality.

References

- Addai, G., Abunyewah, M., Erdiaw-Kwasie, M. O., Okyere, S. A., Gyensare, M. A., & Guodaar, L. (2023). Application of the Rural Web Framework within the Context of Sustainable Development: A Systematic Literature Review. *Sustainability*, 15(5), 4239. <https://doi.org/10.3390/su15054239>
- Aginta, H., Gunawan, A. B., & Mendez, C. (2023). Regional income disparities and convergence clubs in Indonesia: new district-level evidence. *Journal of the Asia Pacific Economy*, 28(1), 101-132. <https://orcid.org/0000-0002-0565-6207>
- Anderson, W. (2018). Linkages between tourism and agriculture for inclusive development in Tanzania: A value chain perspective. *Journal of Hospitality and Tourism Insights*, 1(2), 168–184. <https://doi.org/10.1108/JHTI-11-2017-0021>
- Aritenang, A. F., & Chandramidi, A. N. (2023). The Spatial Effects of Fiscal Decentralization on Regional Convergence: The Case of Regions in Indonesia. *GeoJournal*, 88(2), 2011-2030. <https://doi.org/10.1007/s10708-022-10724-2>
- Azaliah, R., Kurniawan, H., Hartono, D., & Widyastaman, P. A. (2024). The convergence of energy intensity in developing countries: a spatial econometric analysis with Indonesia's provincial panel data: R. Azaliah et al. *Environment, Development and Sustainability*, 26(6), 14915–14939. <https://doi.org/10.1007/s10668-023-03227-8>
- Bekchanov, M., Bhaduri, A., Lenzen, M., & Lamers, J. (2012). The role of virtual water for sustainable economic restructuring: evidence from Uzbekistan, Central Asia. *Central Asia* (June 1, 2012). ZEF-Discussion Papers on Development Policy, (167). <https://doi.org/10.22004/ag.econ.126872>

- Belloc, I., & Molina, J. A. (2023). Are greenhouse gas emissions converging in Latin America? Implications for environmental policies. *Economic Analysis and Policy*, 77, 337-356. <https://doi.org/10.1016/j.eap.2022.11.022>
- Borda, Á. J., Sárvári, B., & Balogh, J. M. (2023). Generation Change in Agriculture: A Systematic Review of the Literature. *Economies*, 11(5), 129. <https://doi.org/10.3390/>
- Botai, J. O., Botai, C. M., Ncongwane, K. P., Mpandeli, S., Nhamo, L., Masinde, M., ... & Mabhaudhi, T. (2021). A review of the water–energy–food nexus research in Africa. *Sustainability*, 13(4), 1762. <https://doi.org/10.3390/su13041762>
- Chaitanya, A. K., & Swain, S. K. (2024). Economic leakages in tourism: A comprehensive review of theoretical and empirical perspectives. *Tourism Economics*, 30(5), 1306-1323. <https://doi.org/10.1177/13548166231204648>
- Charpe, M. (2023). Convergence heterogeneity at the local level in sub-Saharan Africa. *Papers in Regional Science*, 102(2), 273–306. <https://doi.org/10.1111/pirs.12720>
- Chisika, S. N., & Yeom, C. (2021). Enhancing sustainable development and regional integration through electrification by solar power: the case of six East African states. *Sustainability*, 13(6), 3275. <https://doi.org/10.3390/su13063275>
- Christofi, M., Vrontis, D., & Cadogan, J. W. (2021). Micro-foundational ambidexterity and multinational enterprises: A systematic review and a conceptual framework. *International Business Review*, 30(1), 101625. <https://doi.org/10.1016/j.ibusrev.2019.101625>
- Cuero Espinoza, E. I., Adeyi, Q., Ahmad, M. J., Hwang, H. S., & Choi, K. S. (2025). Sustainability Synergies Between Water Governance and Agrotourism Development in the Semi-Arid Climate: A Case Study of Esmeraldas Province, Ecuador. *Water*, 17(15), 2215. . <https://doi.org/10.3390/w17152215>
- D’Aoust, O. S., Galdo, V., & Ianchovichina, E. I. (2025). Territorial income differences and dynamics within Latin American countries: D’Aoust et al. *Empirical Economics*, 69(4), 1851-1895. <https://doi.org/10.1007/s00181-025-02792-3>
- Demirović Bajrami, D., Petrović, M. D., Turgel, I. D., Radovanović, M. M., & Bugrova, E. D. (2025). Reindustrializing the Hidden Gems: A Systematic Review of Creative Efforts in Second-Tier Cities. *Urban Science*, 9(12), 493. <https://doi.org/10.3390/urbansci9120493>
- Dorosh, P., & Thurlow, J. (2012). Agglomeration, growth and regional equity: An analysis of agriculture-versus urban-led development in Uganda. *Journal of African Economies*, 21(1), 94-123. <https://doi.org/10.1093/jae/ejr033>
- Drechsel, P. (2018). *Resource Recovery from Waste: Business Models for Energy, Nutrient and Water Reuse in Low-and Middle-income Countries*. Routledge.
- Drechsel, P., Qadir, M., & Baumann, J. (2022). Water reuse to free up freshwater for higher-value use and increase climate resilience and water productivity. *Irrigation and Drainage*, 71, 100-109. <https://doi.org/10.1002/ird.2694>
- El Bilali, H. (2019). Research on agro-food sustainability transitions: A systematic review of research themes and an analysis of research gaps. *Journal of Cleaner Production*, 221, 353-364. <https://doi.org/10.1016/j.jclepro.2019.02.232>
- Eleftheriou, K., Nijkamp, P., & Polemis, M. L. (2024). Club convergence of sustainable development: fresh evidence from developing and developed countries. *Economic Change and Restructuring*, 57(2), 32. <https://doi.org/10.1007/s10644-024-09617-w>
- eyacheya, J., & Hampton, M. P. (2020). Wishful thinking or wise policy? Theorising tourism-led inclusive growth: Supply chains and host communities. *World Development*, 131, 104960. <https://doi.org/10.1016/j.worlddev.2020.104960>
- Fang, L. (2022). A text-mining and bibliographic analysis of the economic development literature: 1959–2020. *Urban Science*, 6(4), 80. <https://doi.org/10.3390/urbansci6040080>
- Fresneda, E. J., & Fresneda, J. A. (2018). Agroecología, instrumento para la gestión del turismo rural en Quintana Roo. *Estudios sociales (Hermosillo, Son.)*, 28(51), 0-0. <https://doi.org/10.24836/ES.V28I51.509>
- Gunawan, A. B., Mendez, C., & Otsubo, S. (2021). Provincial Income Convergence Clubs in Indonesia: Identification and conditioning factors. *Growth and Change*, 52(4), 2540-2575.
- Gunawan, A. B., Mendez, C., & Otsubo, S. (2021). Provincial income convergence clubs in Indonesia: Identification and conditioning factors. *Growth and Change*, 52(4), 2540-2575. <https://doi.org/10.1111/grow.12553>

- Haile, D. (2025). The effect of agricultural productivity on poverty: what does meta-regression analyses reveal? *Cogent Social Sciences*, 11(1), 2580057. <https://doi.org/10.1080/23311886.2025.2580057>
- Hampton, M. P., Jeyacheya, J., & Long, P. H. (2018). Can tourism promote inclusive growth? Supply chains, ownership and employment in Ha Long Bay, Vietnam. *The Journal of Development Studies*, 54(2), 359-376. <https://doi.org/10.1080/00220388.2017.1296572>
- Harris, J. D., Quatman, C. E., Manning, M. M., Siston, R. A., & Flanigan, D. C. (2014). How to Write a Systematic Review. *The American Journal of Sports Medicine*, 42(11), 2761–2768. <https://doi.org/10.1177/0363546513497567>
- Hazrana, J., Birthal, P. S., Negi, D. S., Mani, G., & Pandey, G. (2019). Spatial spill-overs, structural transformation and economic growth in India. *Agricultural Economics Research Review*, 32(2), 145-158. <https://doi.org/10.5958/0974-0279.2019.00028.4>
- Hebinck, A., Klerkx, L., Elzen, B., Kok, K. P., König, B., Schiller, K., ... & von Wirth, T. (2021). Beyond food for thought—Directing sustainability transitions research to address fundamental change in agri-food systems. *Environmental Innovation and Societal Transitions*, 41, 81-85. <https://doi.org/10.1016/j.eist.2021.10.003>
- Hidayat, M., Sandri, S. H., Murialti, N., & Darwin, R. (2026). Does Climate Change Influence Convergence in Indonesia? Spatial Approach. *International Journal of Energy Economics and Policy*, 16(1), 171. <https://doi.org/10.1016/j.resglo.2023.100133>
- Idd24 - Iddrisu, Z., & Thill, J. C. (2024). Socio-Economic Development Performance and Convergence Among Metropolitan Municipal and District Assemblies in Ghana. *Growth and Change*, 55(4), e70007. 1 of 27 <https://doi.org/10.1111/grow.70007>
- Jaber, M. M., Stojilovska, A., & Yoon, H. (2025). Assessing the Determinants of Energy Poverty in Jordan Based on a Novel Composite Index. *Urban Science*, 9(7), 263. <https://doi.org/10.3390/urbansci9070263>
- Jacob, A., & Umoh, O. (2025). Exploring the intersections of blue, green, and grey economies in Nigeria: opportunities, challenges, and strategic pathways for sustainable development. *Journal of Sustainable Economics*, 3(1), 1-26. <https://doi.org/10.32734/jse.v3i1.19060>
- Jeyacheya, J., & Hampton, M. P. (2020). Wishful thinking or wise policy? Theorising tourism-led inclusive growth: Supply chains and host communities. *World Development*, 131, 104960. <https://doi.org/10.1016/j.worlddev.2020.104960>
- Jiang, L., Folmer, H., Ji, M., & Zhou, P. (2018). Revisiting cross-province energy intensity convergence in China: A spatial panel analysis. *Energy Policy*, 121, 252-263.
- Jiang, L., Folmer, H., Ji, M., & Zhou, P. (2018). Revisiting cross-province energy intensity convergence in China: A spatial panel analysis. *Energy Policy*, 121, 252-263. <https://doi.org/10.1016/j.enpol.2018.06.043>
- Joshi, S., Sharma, M., & Kler, R. (2020). Modeling circular economy dimensions in agri-tourism clusters: Sustainable performance and future research directions. *International Journal of Mathematical, Engineering and Management Sciences*, 5(6), 1046. <https://doi.org/10.33889/IJMEMS.2020.5.6.080>
- Kacou, K. Y. T. (2022). Interregional inequality in Africa, convergence, and multiple equilibria: Evidence from nighttime light data. *Review of Development Economics*, 26(2), 918-940. <https://doi.org/10.1111/rode.12851>
- Kahangirwe, P., Vanclay, F., & Arts, J. (2025). Using environmental and social impact assessment to improve tourism infrastructure projects in protected areas: green tourism in the Kalinzu Central Forest Reserve in Uganda. *Journal of Environmental Planning and Management*, 1-24. <https://doi.org/10.1080/09640568.2025.2539347>
- Lin, M. P., Marine-Roig, E., & Llonch-Molina, N. (2021). Gastronomy as a sign of the identity and cultural heritage of tourist destinations: A bibliometric analysis 2001–2020. *Sustainability*, 13(22), 12531.
- Liu, Y., Zhang, M., Cao, Q., Wang, E., & Zou, B. (2023). Can integration of agriculture and tourism promote rural green development? Empirical evidence from 152 cities in China. *Agriculture*, 13(2), 405.). <https://doi.org/10.3390/agriculture13020405>
- Mejía-Dugand, S., & Pizano-Castillo, M. (2020). Touching down in cities: Territorial planning instruments as vehicles for the implementation of SDG strategies in cities of the global south. *Sustainability*, 12(17), 6778. <https://doi.org/10.3390/su12176778>
- Mendez, C., & Santos-Marquez, F. (2022). Economic and social disparities across subnational regions of South America: A spatial convergence approach. *Comparative Economic Studies*, 64(4), 582-605. <https://doi.org/10.1057/s41294-021-00181-0>

- Miranda González, F. J., García Gallego, J. M., Chamorro Mera, A., Valero Amaro, V., & Rubio Lacoba, S. (2023). A Systematic Review of the Literature on Agri-food business Models: Critical Review and Research Agenda. <https://doi/10.1108/bfj-12-2022-1102>
- Miranti, R. C. (2021). Is regional poverty converging across Indonesian districts? A distribution dynamics and spatial econometric approach. *Asia-Pacific Journal of Regional Science*, 5(3), 851-883. <https://doi.org/10.1007/s41685-021-00199-3>
- Miranti, R. C., & Mendez, C. (2023). Social and economic convergence across districts in Indonesia: A spatial econometric approach. *Bulletin of Indonesian Economic Studies*, 59(3), 421-445.
- Nguyen, M. T. T. (2024). Provincial income convergence in Vietnam: spatio-temporal dynamics and conditioning factors. *Asia-Pacific Journal of Regional Science*, 8(2), <https://doi.org/10.1007/s41685-024-00334-w>
- Nsan, N., Obi, C., & Etuk, E. (2025). Bridging policy, infrastructure, and innovation: a causal and predictive analysis of electric vehicle integration across Africa, China, and the EU. *Sustainability*, 17(12), 5449. <https://doi.org/10.3390/su17125449>
- Nyikana, S., & Tichaawa, T. M. (2024). Towards an integrated framework for sustainable sport tourism development in Central Africa. *Development Southern Africa*, 41(4), 780-794. <https://doi.org/10.1080/0376835X.2024.2320119>
- Othieno, A., & Csonka, A. (2025). Impact of Agro-Processing Among Small-Scale Farmers in Sub-Saharan Africa: A Systematic Literature Review. *REGIONAL AND BUSINESS STUDIES*, 17(2), 81-92.
- Pienaar, A., Brent, A. C., Musango, J. K., & De Kock, I. H. (2017). Water resource infrastructure implications of a green economy transition in the Western Cape Province of South Africa: A system dynamics approach. *South African Journal of Industrial Engineering*, 28(2), 78-94. <https://doi.org/10.7166/28-2-1639>
- Porada Rochoń, M. (2021). Convergence in green growth as the key to Fighting climate change, 1990–2019. *Energies*, 14(24), 8324. <https://doi.org/10.3390/en14248324>
- Qadir, M., Drechsel, P., Jiménez Cisneros, B., Kim, Y., Pramanik, A., Mehta, P., & Olaniyan, O. (2020, February). Global and regional potential of wastewater as a water, nutrient and energy source. In *Natural Resources Forum* (Vol. 44, No. 1, pp. 40-51). Oxford, UK: Blackwell Publishing Ltd. <https://doi.org/10.1111/1477-8947.12187>
- Qi, M., Xu, J., Amuji, N. B., Wang, S., Xu, F., & Zhou, H. (2022). The nexus among energy consumption, economic growth and trade openness: evidence from West Africa. *Sustainability*, 14(6), 3630. <https://doi.org/10.3390/su14063630>
- Qi, Z., Wu, Z., You, Y., & Zhan, X. (2024). Can Rural Industrial Convergence Alleviate Urban–Rural Income Inequality?: Empirical Evidence from China. *Land*, 14(1), 40. <https://doi.org/10.3390/land14010040>
- Rasul, G., & Sharma, B. (2015). Water, Food, and energy nexus in South Asia: Implications for adaption to climate change. *Handbook of climate change adaptation*, 1329-1350. https://doi.org/10.1007/978-3-642-40455-9_81-1
- Reardon, T., Liverpool-Tasie, L. S. O., & Minten, B. (2021). Quiet Revolution by SMEs in the midstream of value chains in developing regions: wholesale markets, wholesalers, logistics, and processing. *Food Security*, 13(6), 1577-1594. <https://doi.org/10.1007/s12571-021-01224-1>
- Rethlefsen, M. L., Kirtley, S., Waffenschmidt, S., Ayala, A. P., Moher, D., Page, M. J., Koffel, J. B., PRISMA-S Group, Blunt, H., Brigham, T., Chang, S., Clark, J., Conway, A., Couban, R., De Kock, S., Farrah, K., Fehrman, P., Foster, M., Fowler, S. A., ... Young, S. (2021). PRISMA-S: An extension to the PRISMA Statement for Reporting Literature Searches in Systematic Reviews. *Systematic Reviews*, 10(1), 39. <https://doi.org/10.1186/s13643-020-01542-z>
- Ribeiro, I. P., Lopes, H. S., Dinis, M. A. P., & Remoaldo, P. C. (2025). Geography of sustainability transitions: mapping spatial dynamics and research trends between 1995 and 2024. *Environments*, 12(5), 148. <https://doi.org/10.3390/environments12050148>
- Richelle, B., Mao, F., & Liebe, U. (2025). Towards equitable, integrated, and adaptive water-energy-food nexus research in Africa: A systematic literature review. *Environmental Impact Assessment Review*, 115, 108043. <https://doi.org/10.1016/j.eiar.2025.108043>
- Rodias, E., Aivazidou, E., Achillas, C., Aidonis, D., & Bochtis, D. (2020). Water-energy-nutrients synergies in the agrifood sector: A circular economy framework. *Energies*, 14(1), 159. <https://doi.org/10.3390/en14010159>
- Salman, M., Sarker, M. R., Rahman, M. A., McKenzie, A. M., & Sarkar, M. A. R. (2025). Breaking the Regional Barriers: Identifying Determinants of Antenatal Care Access in Bangladesh for Improved Maternal Health Policy. *Sustainable Development*. <https://doi.org/10.1002/sd.70493>

- Sandoval, A., Requelme, N., & Cachipundo, C. (2025). Multi-criteria decision making (MCDM) methodology for the prioritization of technical irrigation projects. *Water Policy*, 27(8), 804-822. <https://doi.org/10.2166/wp.2025.304>
- Surya, B., Saleh, H., & Idris, M. (2021). Rural agribusiness-based agropolitan area development and environmental management sustainability: Regional economic growth perspectives. *International journal of energy economics and policy*, 11(1), 142-157. <https://doi.org/10.32479/IJEEP.10184>
- Togaymurodov, E., Roman, M., & Prus, P. (2023). Opportunities and directions of development of agritourism: Evidence from Samarkand Region. *Sustainability*, 15(2), 981. <https://doi.org/10.3390/su15020981>
- Torres, R., & Momsen, J. H. (2004). Challenges and potential for linking tourism and agriculture to achieve pro-poor tourism objectives. *Progress in Development Studies*, 4(4), 294-318. <https://doi.org/10.1191/1464993404ps092oa>
- TTipayalai, K., & Mendez, C. (2024). Regional convergence and spatial dependence in Thailand: global and local assessments. *Journal of the Asia Pacific Economy*, 29(2), 693-720. <https://doi.org/10.1080/13547860.2022.2041286>
- Vanacker, H., Lemieux, A. A., Bonnier, S., Yost, M., & Poupard, S. (2023). Circularity, garment durability, and just transition: Understanding the trinary interrelationship through an integrative literature review. *Sustainability*, 15(15), 11993. <https://doi.org/10.3390/su151511993>
- Zhang, P., Wang, Y., Yu, Z., Shao, X., & Chong, H.-Y. (2024). Analysis of the Spatio-Temporal Differences and Structural Evolution of Xizang's County Economy. *Sustainability*, 16(18), 7937. <https://doi.org/10.3390/su16187937>

EDUCATION, SOCIAL INCLUSION, AND YOUTH RESILIENCE IN EU ACCESSION CONTEXTS: COMPARATIVE EVIDENCE FROM THE WESTERN BALKANS

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Abstract

*This study examines the structural factors shaping youth resilience in Albania, Bosnia and Herzegovina, and Kosovo, with particular attention to how socio-economic conditions, education systems, and governance frameworks influence young people’s vulnerability to crime, violence, and social exclusion. Situating the analysis within the broader context of European Union *acquis* approximation, the research explores how regional youth challenges intersect with policy priorities related to education reform, youth participation, social inclusion, and crime prevention promoted through EU integration processes. The study seeks to answer three key questions: what structural challenges affect youth resilience in the Western Balkans, how young people perceive opportunities for education, employment, and civic engagement, and how these conditions shape vulnerability to crime and radicalization.*

Methodologically, the research adopts a mixed-methods design combining quantitative and qualitative evidence. Data were collected through a structured online survey administered to 80 young respondents aged 14–29 across the three countries using the CAWI method, complemented by focus group discussions and key informant interviews with educators, civil society actors, and policymakers working in youth development and prevention initiatives. The triangulation of survey data and qualitative insights enables a comparative analysis of youth perceptions and institutional responses across different national contexts.

The findings reveal a consistent pattern of youth vulnerability linked to structural socio-economic constraints, including high unemployment, limited labour market opportunities, and a persistent mismatch between education systems and labour market demands. Across the region, many young people perceive limited opportunities for meaningful participation in public life and express low levels of trust in institutions, while migration emerges as a widely perceived strategy for overcoming structural constraints. At the same time, the study highlights the preventive potential of inclusive education systems, youth participation mechanisms, and community-based initiatives, which align with EU policy frameworks aimed at strengthening resilience and preventing youth involvement in crime or violent extremism. Overall, the analysis underscores that advancing EU-aligned reforms in education, youth policy, and governance remains essential for strengthening youth resilience and promoting long-term social stability in the Western Balkans.

Keywords: Youth Resilience, Western Balkans, EU Approximation, Education Policy, Youth Crime Prevention, Social Inclusion, Organised Crime, Violent Extremism

1. Introduction

This report presents the findings of a multi-country empirical assessment examining youth resilience in Albania, Bosnia and Herzegovina, and Kosovo. It is grounded in a regional framework that explores how young people navigate socio-economic vulnerabilities, engage with civic life, and respond to risks related to crime, violence, and extremism. The report combines quantitative and qualitative methods to generate evidence-based insights that can inform youth policies, programs, and institutional responses.

The assessment is motivated by growing concerns regarding youth exclusion, underemployment, migration pressures, and exposure to violence in the Western Balkans. While national governments have made commitments to improve youth outcomes—through education reform, employment initiatives, and civic engagement strategies—significant gaps remain in the understanding of youth needs, aspirations, and lived experiences at the local level. Education plays a central protective role in preventing youth crime and antisocial behaviour, not only by transmitting knowledge, but also by shaping social bonds, pro-social norms, emotional regulation, and future-oriented aspirations. Within criminological and developmental literature, schools are understood as key institutions of informal social control: when young people are meaningfully engaged in education, connected to teachers and peers, and able to envision realistic educational and occupational pathways, their likelihood of involvement in delinquency, violence, and other antisocial behaviours decreases. Conversely, weak school attachment, low perceived relevance of education, early school disengagement, and exclusionary school climates can heighten vulnerability to deviant peer networks, informal economies, and violent or criminal trajectories (Hirschi, 1969; World Bank, 2022; OSCE, 2021).

As asserted in the United Nations Security Council Resolution 2250 on Youth, Peace and Security (2015), youth can play a decisive role in the prevention and resolution of conflicts and are a key aspect of the sustainability, inclusiveness and success of peace-building efforts. This report responds to that gap by collecting and analyzing data directly from young people. By doing so, it contributes to a growing body of evidence that links resilience not only to individual coping mechanisms, but also to systemic factors such as institutional trust, opportunity structures, and social cohesion.

The case studies, such as the **tragic school violence in Albania**, where a 14-year-old was fatally stabbed near a school in Tirana, underscore the critical need for effective school safety measures and the prevention of youth violence. Similarly, the **'Be a Man Club' in Bosnia and Herzegovina** serves as a model of youth-led initiatives addressing violence and promoting healthy masculinity, offering concrete examples that illustrate the broader trends identified in the research. In **Kosovo**, the high rates of femicide and gender-based violence reflect the pressing need to address gender-based violence as part of youth resilience programming, a challenge that remains central to the region's social cohesion.

The report seeks to address the following research questions:

- What are the primary challenges and concerns facing youth in Albania, Bosnia and Herzegovina, and Kosovo?
- How do young people perceive opportunities for participation, education, and employment?
- What are the regional trends in youth vulnerability to crime, violence, and radicalization?
- How do demographic, geographic, and social variables influence youth resilience?

Through this empirical lens, the report aims to provide a comprehensive and comparative overview of youth perspectives across three countries, highlighting both shared regional dynamics and country-specific contexts. It also identifies policy and programming gaps and proposes targeted interventions to strengthen youth resilience and social inclusion.

The assessment review itself provides an exhaustive analysis of the collected data; however, these data can be additionally cross-referenced to learn more about the youth profile and their view of the country's reality. Therefore, every careful reader of the interpreted data will surely uncover some other dimensions of the answers given, which may serve as a baseline for additional analyses and academic and professional research. The aim and purpose of this assessment review is not to provide conclusive answers regarding pathways to resilience, but to raise certain issues for further scientific and professional discussion and debate, as well as to encourage the taking of certain concrete steps and solutions for improving the standard of life (not only for young people) in Albania, Bosnia and Herzegovina and Kosovo.

The Role of Education in Preventing Youth Crime and Antisocial Behaviour in Albania

Education constitutes a critical protective role in preventing youth crime and antisocial behaviour. Within criminological and developmental scholarship, schools are understood as key institutions of informal social control. When young people are meaningfully engaged in education, connected to teachers and peers, and able to envision realistic educational and occupational processes, their likelihood of involvement in delinquency, violence, and other antisocial behaviours tend to decrease. Conversely, weak school attachment, and early school disengagement can increase vulnerability to deviant peer networks, informal economies, and pathways to violent behaviours (Hirschi, 1969; World Bank, 2022; OSCE, 2021). From this perspective, education contributes to youth crime prevention in different interrelated ways. First, education settings fosters **social and emotional** competencies, including self-regulation, empathy, conflict resolution, and communication skills, all of which are associated with lower levels of aggressive and antisocial behaviour. Second, schools can function as **early warning and referral mechanisms** through teachers, psychologists, social workers, and school security staff who identify vulnerable students and connect them to services. Third, education plays a central role in civic socialization by fostering trust, participation, and a sense of belonging within community. Fourth, inclusive education strengthens future orientation, as young people perceive schools as meaningful and linked to viable life opportunities, they are less likely to seek recognition, income, or identity through delinquent pathways.

The prevention of youth involvement in organised crime and antisocial behaviour has increasingly been situated within the broader framework of European Union acquis approximation, particularly in candidate and potential candidate countries of the Western Balkans, including Albania, Bosnia and Herzegovina, and Kosovo. Although the acquis communautaire does not contain a single legal instrument specifically dedicated to youth crime prevention, a number of policy areas and acquis chapters Chapter 23 (Judiciary and Fundamental Rights) and Chapter 24 (Justice, Freedom and Security), establish normative and institutional standards that shape national prevention strategies. These chapters emphasise the strengthening of the rule of law, protection of vulnerable groups, child protection mechanisms, and the implementation of preventive strategies to organised crime addressing the exploitation of vulnerable, especially recruitment of youth in organized crime (European Commission, 2023).

More specific protections are embedded in several EU legal instruments concerning children's rights and criminal justice safeguards. Among the most relevant are legal instruments such as Directive 2011/36/EU on preventing and combating trafficking in human beings, Directive 2011/93/EU on combating the sexual abuse and exploitation of children, and Directive (EU) 2016/800 on procedural safeguards for children who are suspects or accused persons in

criminal proceedings. Together, these directives establish minimum standards for protecting minors from exploitation and child-sensitive justice systems, which implies the development of coordinated prevention policies that involve education systems, child protection institutions, and justice authorities.

These *acquis* provisions are complemented by EU policy frameworks including the EU Youth Strategy 2019–2027, the European Education Area, and the EU Strategy to Tackle Organised Crime 2021–2025. These strategies reinforce the preventive role of inclusive education, civic learning, digital literacy, and youth engagement in reducing vulnerabilities that may expose young people to criminal networks or antisocial pathways (European Commission, 2018; European Commission, 2020; European Commission, 2021).

The EU Youth Strategy 2019–2027 emphasises youth inclusion, participation, and empowerment as key elements for building resilient societies and reducing vulnerability to crime, radicalisation, and social marginalisation (European Commission, 2018). Similarly, frameworks such as the European Education Area and the European Skills Agenda highlight inclusive, high-quality education systems capable of equipping young people with critical thinking, digital competencies, and labour market-relevant skills, all of which are recognised protective factors against delinquency and criminal involvement (European Commission, 2020). Complementing these initiatives, the EU Youth Guarantee initiative seeks to address youth unemployment and inactivity by ensuring that young people receive timely access to employment, training, or further education within a limited period after leaving school or becoming unemployed, thereby mitigating structural vulnerabilities often associated with youth marginalisation and exposure to illicit economies (OECD, 2022).

The EU’s approach to preventing youth involvement in organised crime is also reflected in broader security and prevention strategies. The EU Strategy to Tackle Organised Crime 2021–2025 acknowledges the importance of preventive interventions targeting vulnerable populations, including children and adolescents who may be exploited by criminal networks for activities such as drug distribution, transportation, or logistical support (European Commission, 2021). Parallel initiatives developed within the Radicalisation Awareness Network (RAN), which underline the critical role of educational institutions in building youth resilience against extremist narratives, criminal recruitment, and social polarisation. RAN guidance emphasises the integration of civic education, media literacy, social-emotional learning, and inclusive school environments as central elements of prevention strategies across European education systems (RAN, 2023).

A growing body of regional research and policy analysis further contextualises these EU frameworks in the context of the Western Balkans. Several studies from UNDP, OSCE, UNODC, and the Regional Cooperation Council (RCC) consistently highlight the interconnected relationship between socio-economic exclusion and vulnerability to crime and violence. For instance, the UNODC regional assessment on crime trends in the Western Balkans reveals that organised criminal groups frequently exploit socio-economically marginalised youth for low-level criminal tasks, particularly in environments characterised by limited employment opportunities and weak institutional presence (UNODC, 2021). Similarly, the OSCE’s analysis of youth and security in the Western Balkans emphasises the role of schools as important environments for fostering democratic values, civic competencies, conflict-resolution skills. (OSCE, 2021).

Regional policy literature also underscores the structural challenges of aligning education systems with labour market demands as part of broader prevention strategies. Studies conducted by the World Bank and the OECD identify persistent issues, structural challenges in the Western Balkans, including skills mismatches, high youth unemployment, and limited vocational training opportunities, which contribute to youth disenfranchisement and increase exposure to informal or illicit economic activities (World Bank, 2022; OECD, 2022).

Addressing these structural gaps through education reform, vocational training expansion, and improved school-to-work transitions is therefore widely recognised as a critical component of crime prevention policies.

Beyond formal education systems, regional studies emphasise the role of non-formal education, youth work, and youth engagement initiatives in strengthening youth resilience. The Council of Europe’s work on youth policy and crime prevention in South-Eastern Europe highlights the importance of youth participation mechanisms, local youth councils, and youth centres in fostering social inclusion and reducing alienation among young people (Council of Europe, 2022). These initiatives align with EU policy priorities that promote youth participation in democratic processes and encourage local governance structures to integrate young people into decision-making processes related to community safety and development.

Overall, the existing literature indicates that the approximation process in the Western Balkans increasingly requires the integration of education reform, youth policy, and rule-of-law standards for preventing youth involvement in organised crime and strengthening long-term social resilience. Within this framework, schools, vocational training systems, and youth engagement initiatives are increasingly understood as central institutional arenas for addressing the socio-economic and psychosocial factors that contribute to youth vulnerability to criminal exploitation. Consequently, strengthening the quality, inclusiveness, and relevance of education systems has emerged as a central component of EU-supported reform agendas aimed at enhancing long-term stability, social cohesion, and crime prevention in the region.

2. Methodology

This study employs a mixed-methods research design to assess youth resilience across Albania, Bosnia and Herzegovina, and Kosovo. The methodology integrates quantitative and qualitative data collection and analysis techniques to ensure a comprehensive understanding of youth attitudes, behaviors, and vulnerabilities in diverse local contexts.

2.1 Research Design and Data Collection

The research involved three primary data collection methods:

1. **Quantitative Survey:**
 - **Instrument:** A structured, self-administered online questionnaire.
 - **Sample Size:** 80 respondents aged 14–29.
 - **Countries Covered:** Albania, Bosnia and Herzegovina, and Kosovo.
 - **Method:** Computer-Assisted Web Interviewing (CAWI).
 - **Period:** March – April 2025.
2. **Focus Group Discussions (FGDs):** Conducted with youth participants, community leaders, educators, and representatives from local safety and CVE (Countering Violent Extremism) councils.
3. **Key Informant Interviews (KIIs):** Conducted with policymakers, CSO leaders, research experts, and institutional stakeholders at the national and local levels.

2.2 Sampling and Participant Profile

Participants were selected through purposive and snowball sampling techniques to ensure representation across:

- Urban and rural communities
- Age cohorts (14–18, 19–24, 25–29)
- Gender and socio-economic backgrounds
- Educational and employment status

The sample was balanced to reflect the diverse youth demographics within each country. Respondents included both participants in program activities and members of the wider community.

Table: Sampling and Participant Profile

Characteristic	Albania	Bosnia and Herzegovina	Kosovo
Gender	50% Male, 50% Female	48% Male, 52% Female	49% Male, 51% Female
Age Groups	14-18: 25%, 19-24: 50%, 25-29: 25%	14-18: 30%, 19-24: 40%, 25-29: 30%	14-18: 20%, 19-24: 55%, 25-29: 25%
Urban vs Rural Distribution	60% Urban, 40% Rural	55% Urban, 45% Rural	65% Urban, 35% Rural
Educational Status	60% Secondary, 40% Higher Education	65% Secondary, 35% Higher Education	58% Secondary, 42% Higher Education
Employment Status	30% Employed, 50% Unemployed, 20% Student	25% Employed, 45% Unemployed, 30% Student	28% Employed, 45% Unemployed, 27% Student
Socio-Economic Background	70% Middle/Lower Income, 30% Higher Income	65% Middle/Lower Income, 35% Higher Income	75% Middle/Lower Income, 25% Higher Income

2.3 Survey Instrument and Themes

The questionnaire was designed to assess the following thematic areas:

- Education and Competencies
- Employment, Economic Participation, and Mobility
- Values, Identity, and Social Cohesion
- Civic Engagement and Political Participation
- Exposure to Crime, Violence, and Radicalization

Survey questions were adapted to local contexts and translated into Albanian, Bosnian, and English, ensuring both linguistic accessibility and conceptual clarity.

2.4 Data Analysis

Quantitative data were analysed using descriptive statistics, including measures of central tendency and frequency distributions. Where appropriate, disaggregated analysis by gender, age group, and country was conducted to highlight comparative trends.

Qualitative data from focus groups and interviews were transcribed, coded, and thematically analysed. Insights were triangulated with survey data to validate findings and enhance contextual understanding.

Additionally, the report includes **case studies of specific incidents and initiatives in Albania, Bosnia and Herzegovina, and Kosovo**. These real-world examples help contextualize the survey findings and provide deeper insights into the challenges and resilience strategies faced by youth in these countries.

2.5 Ethical Considerations

All data collection adhered to ethical research standards, including informed consent, anonymity, and voluntary participation. The research team ensured that no personally identifiable information was collected or stored. Sensitive topics, such as experiences of discrimination or violence, were addressed with care and optionality.

3. Contextualizing Youth Challenges: Trends in Three Western Balkans Countries

This section provides a critical overview of the challenges faced by youth in Albania, Bosnia and Herzegovina, and Kosovo, delving into socio-economic struggles, education systems,

employment issues, migration pressures, and concerns around violence and extremism. It contextualizes these challenges within the region’s historical, socio-political, and economic frameworks, which influence the lived realities of youth.

Youth Distribution and Demographic Trends

Young people represent a significant portion of the population in the Western Balkans, particularly in Kosovo where nearly 50% of the population is under 25 years old. However, limited access to economic opportunities, exacerbated by high youth unemployment and lack of social mobility, makes youth empowerment a critical issue. For instance:

- In Kosovo, youth unemployment is over 40%, and in Bosnia and Herzegovina, youth unemployment stands at 26.5%.
- The Youth Progress Index 2023 reveals that youth in the region still face stagnation in rights and freedoms, especially in terms of access to education, political freedoms, and adequate housing.

Education and Employment Struggles

The disconnect between education systems and labour market demands results in high unemployment rates across the region, contributing to a **brain drain**:

- **Albania** has a youth unemployment rate of 27%, while **Bosnia and Herzegovina** sees 33% youth unemployment. **Kosovo** faces youth unemployment over 40%.
- Education quality remains inadequate to meet the needs of modern labour markets, with skills mismatch being a key driver for youth dissatisfaction. Many young people feel compelled to leave for better opportunities abroad.

Education in the region is often inadequately aligned with labour market demands, leading to high levels of skills mismatch and unemployment. The mismatch between educational attainment and available jobs is a significant problem especially amongst youngsters, leading to brain drain—the emigration of educated young individuals in search of better employment opportunities abroad. Reports from the European Commission (2022 and 2023) highlight that despite improvements in access to education, quality and relevance remain major concerns. Many young people that do not match labour market needs, leading to high unemployment rates—with youth unemployment reaching 27% in Albania, 33% in Bosnia and Herzegovina, and over 40% in Kosovo (World Bank, 2023). Most youths don’t work in jobs they were educated to perform. Most believe that they need to know someone or to join a political party to secure employment, and at the same time, ‘under the table’ labour is prevalent in our country. Limited job opportunities push many young people into the informal economy or migration, further weakening local economies. The UNDP Human Development Report (2022) indicates that many young professionals leave their home countries in search of better opportunities, contributing to the region’s brain drain. This migration trend reduces the availability of skilled labour and affects the long-term economic prospects of these countries.

In focus group discussions, young people frequently noted that jobs were handed out through connections rather than merit. This belief suggests that those in positions of responsibility throughout society are not necessarily perceived by youth as the best qualified but rather those with personal connections, which may further erode young people’s trust in institutions and their leaders

Migration Pressures and Social Exclusion

Youth migration is a significant challenge driven by economic insecurity and lack of career prospects. More than **50%** of youth in the region express a desire to migrate, particularly to EU countries such as **Germany, Italy, and Switzerland**. This migration trend, while offering temporary relief, places long-term strains on local economies and hinders the development of skilled labour. In addition to migration, social exclusion, especially among ethnic minorities and those in rural areas, remains a pressing issue, further eroding trust in state institutions and governance.

Civic Engagement and Political Disenfranchisement

Civic engagement and trust in political institutions are low across the region, with many youths feeling excluded from decision-making processes. Polls have shown that **42%** of people in the Western Balkans do not engage in political discussions, with only **15%** actively participating in public events. The engagement gap is even wider in marginalized communities, and youth councils often lack the capacity to effectively involve young people in governance processes.

Safety and Security Concerns

Safety concerns, especially around crime and radicalization, are also pressing issues for youth. Organized crime⁶² remains a top concern in **Bosnia and Herzegovina**, while youth in **Kosovo** and **Albania** often cite **internet safety** and the **illicit use of firearms** as major risks to their well-being.

On average, 26 percent of respondents, across urban and rural areas, expressed feeling threatened by the illegal possession and misuse of weapons in their neighbourhoods – in instances of crime, domestic violence and celebratory shooting, for example.

School safety has emerged as a critical concern in Albania, as well as across the region. High-profile incidents involving youth violence—including murders committed within or near school premises—have sparked public outcry and exposed serious weaknesses in implementation of existing safety measures. Despite the introduction of the School Security Package by the government, concerns remain about its effectiveness in preventing violence, abuse, and the worst-case outcomes, such as homicide.

School violence has become a growing issue, as highlighted by the **2023 stabbing incident in Tirana**, where a 14-year-old was fatally attacked near a school, highlighting the need for stronger security infrastructures and comprehensive safety programs in schools. Reports of hate speech and discrimination remain common, particularly among marginalized groups, and contribute to an environment where radicalization and extremism can thrive.

Discrimination based on age, political affiliation or ethnicity were also frequently reported, although in some societies much more than in others. When it comes to gender discrimination, in all locations, young women reported gender discrimination much more often than did men, by a factor of up to ten. In most locations, women experienced significantly more sexual harassment than men, while in Albania and Kosovo, young women said they experienced more bullying and intimidation both at work and online. By contrast, in Bosnia and Herzegovina, notable percentages of men reported being victims of violence or threat of violence outside the home. There was no significant difference found in the experiences of young women and young men. Out of those who had experienced violence or discrimination, only 17 percent reported this to anyone. It is important to note that although respondents were given the privacy to answer the questions about experiences of discrimination and violence, they may have been hesitant to disclose such sensitive experiences, even anonymously.

⁶² Defined as transnational, national or local groupings of enterprises run by criminals engaging in illegal activity such as financial crimes, violence, drug, arms and human trafficking

Radicalization and Violent Extremism

Radicalization and violent extremism continue to be critical concerns in the region, particularly among marginalized youth. Socio-economic factors like **unemployment**, **political instability**, and **social exclusion** serve as significant drivers of extremism, pushing some youth toward illegal or violent activities. Efforts to counter these threats include educational programs focusing on **critical thinking** and **media literacy**, alongside efforts to provide **vocational training** and **job opportunities**.

Beyond education and employment, community engagement and trust-building are crucial in preventing radicalization. When young people feel disconnected from decision-making processes and distrust state institutions, they may turn to alternative networks, including extremist groups (OSCE, 2023). In Bosnia and Herzegovina, returning foreign fighters and their families face stigma and marginalization, which can further alienate them from society (UNDP Prevention of Violent Extremism Report, 2022). In Kosovo, radical religious narratives have gained traction in isolated communities where state institutions have limited presence. Meanwhile, in Albania, lack of youth participation in governance has contributed to their political disenfranchisement (EU Enlargement Report, 2023).

Youth are a heterogeneous group, meaning that even among youths, needs and lifestyles vary. In particular, we are referring to youths who live in urban areas and their peers living in smaller communities in any of three countries. This is why mechanisms that will enable youth participation at the local level are crucial. Almost 50% of local self-government units lack local youth councils, and those that do have them, have councils that are often dysfunctional and non-inclusive bodies. To summarise, just as there is a national youth council, we also need functional participation mechanisms locally, such as youth councils, youth offices, local action plans, the financing of local youth policies and youth spaces.

4. Key Findings: Albania

This section presents the main findings from Albania, based on quantitative survey responses, focus group discussions, and key informant interviews. The analysis highlights challenges related to youth unemployment, migration, education, crime vulnerability, and exposure to radicalization, with a focus on socio-economic and institutional drivers of youth discontent. Providing a socially and emotionally safe and supportive environment for young people in order to prevent the involvement of youth in any kind of crime is of paramount importance.

4.1 Employment and Economic Insecurity

Youth unemployment remains a critical concern in Albania, with 27% of youth respondents reporting that they are unemployed. The mismatch between education and labor market needs continues to be a major factor, with survey responses indicating that:

- 68% of respondents believe their education does not align with job opportunities available in the market.
- 61% stated that employment depends more on personal connections or political affiliation than merit.

Additionally, internal migration is an emerging trend, particularly among youth from smaller municipalities. Respondents cited cost of living and lack of affordable housing as major barriers to successful transition to urban labour markets.

4.2 Migration Intentions

The survey reveals a strong desire to emigrate:

- 52% of youth respondents expressed a clear intention to migrate abroad for economic reasons.

- Preferred destinations include Germany, Italy, and Switzerland, consistent with EU migration patterns reported by EUROSTAT.

Focus group participants described migration as a “default solution” due to lack of institutional support and absence of long-term career prospects. This contributes to Albania’s persistent youth brain drain. Internal migration is a key feature for Albania. Internal migrants in Albania often struggle with limited job opportunities in their hometowns, prompting them to look for work in urban areas. Many young people from smaller municipalities work often as seasonal workers during the summer months due to limited job opportunities available in their hometowns.

4.3 Education and Vocational Gaps

Survey and\\ interview data emphasize a shortage of practical, job-oriented education:

- 58% of youth expressed dissatisfaction with the quality of public education.
- 72% of respondents indicated they had never participated in any vocational training.

A key informant from the Faculty of Social Sciences stated: “Despite rising enrolment, our system does not equip students with marketable skills. The disconnect is systemic.”

4.4 Vulnerability to Crime and Delinquency

Albanian youth are vulnerable to involvement in the informal economy, petty crime, and, in some cases, organized crime. According to national crime data:

- Juveniles account for 5% of all reported crimes.
- Young people in economically marginalized communities are more likely to engage in or be targeted by criminal networks, particularly related to drug trafficking and smuggling.

Survey responses indicate:

- 24% of respondents personally know peers involved in informal or illicit activities due to financial pressures.

Albania: The Murder of a 14-Year-Old in Tirana

In Albania, the tragic murder of a 14-year-old in November 2023 near the "Fan Noli" school in Tirana, where a minor attacker fatally stabbed the victim after an ongoing conflict, starkly highlighted the rising youth violence concerns. This incident shook the society, prompting heightened discussions about the safety of children and the role of institutions in ensuring a secure educational environment. It brought to the forefront the issues of school violence, social and economic pressures, and the need for robust preventive measures to address underlying causes of youth aggression.

4.5 Exposure to Radicalization

Radicalisation and extremism, which can lead to violent extremism, represent a persisting security threat to the Western Balkans. In the past few decades, the Western Balkan countries have been broadly viewed as a breeding ground for religious radicals and violent extremism. Tackling violent extremism was traditionally a task for security sector agencies exclusively. Although Albania has seen a decline in radicalization-related incidents, concerns persist regarding online extremist content targeting disenfranchised youth. Stakeholders highlighted that:

- Digital platforms remain an active vector for radical narratives.

- Rural and low-income communities are most vulnerable due to weak institutional presence and lack of counter-narrative programs. Survey insights reveal:
- 43% of respondents believe that economic exclusion is a stronger driver of radicalization than ideological belief.

4.6 Institutional Gaps and Local Governance

Local governments face significant challenges in addressing youth needs:

- Incomplete decentralization of youth-related services limits municipal responsiveness.
- Lack of systematic youth data hampers planning and policy implementation. Participants highlighted that youth strategies often remain “paper policies” with limited implementation. Local youth councils, where they exist, are underfunded and often inactive.

The Albanian case also illustrates the limits of education when it is insufficiently supported by broader institutional and community mechanisms. The report highlights that although the number of school psychologists, security officers, and child protection professionals has increased, demand continues to exceed capacity, and coordination among institutions remains weak. This suggests that schools alone cannot bear the burden of prevention. Their effectiveness depends on stronger inter-institutional cooperation with municipalities, child protection units, law enforcement, and social services. Prevention therefore requires not only safer schools, but also more inclusive curricula, practical and vocational learning opportunities, anti-bullying interventions, parental engagement, and community-based support for at-risk youth.

4. Key Findings: Bosnia and Herzegovina

This section presents findings from Bosnia and Herzegovina, drawn from youth survey data, focus group discussions, and expert interviews. The data highlight major trends in unemployment, educational mismatches, civic disengagement, migration, and socio-economic drivers of vulnerability.

4.1 Youth Unemployment and Labor Market Disconnect

Bosnia and Herzegovina continues to face some of the highest youth unemployment rates in Europe:

- **26.5%** of youth were unemployed as of 2023, with limited improvement from previous years.
- **15.98%** of youth aged 15–24 are classified as NEET (Not in Education, Employment, or Training).

Survey results further reveal:

- Only **15.2%** of employed youth hold full-time, permanent jobs.
- **63%** of respondents believe that temporary, insecure work is their only short-term option.

4.2 Education and Skills Mismatch

There is a clear disconnect between educational outcomes and labor market requirements:

- **65%** of respondents reported they have not participated in training or non-formal education.
- **62%** of youth surveyed believe their formal education does not prepare them adequately for employment.

In addition, key informants and FGDs emphasized the fragmented nature of the education system—particularly its ethnic segregation and outdated curricula—as a core barrier to integration and opportunity.

4.3 Migration Pressures and Brain Drain

Survey data and qualitative findings confirm that **migration is seen as the most viable path** to success:

- Over **70%** of youth respondents reported a desire to migrate for work or study.
- Common destinations include **Germany, Austria, and Croatia**, following established diaspora networks.

Participants often cited frustration with political instability and lack of institutional trust as push factors. One respondent remarked:

“Even with a degree, I would rather work a basic job abroad than stay here and wait for change that never comes.”

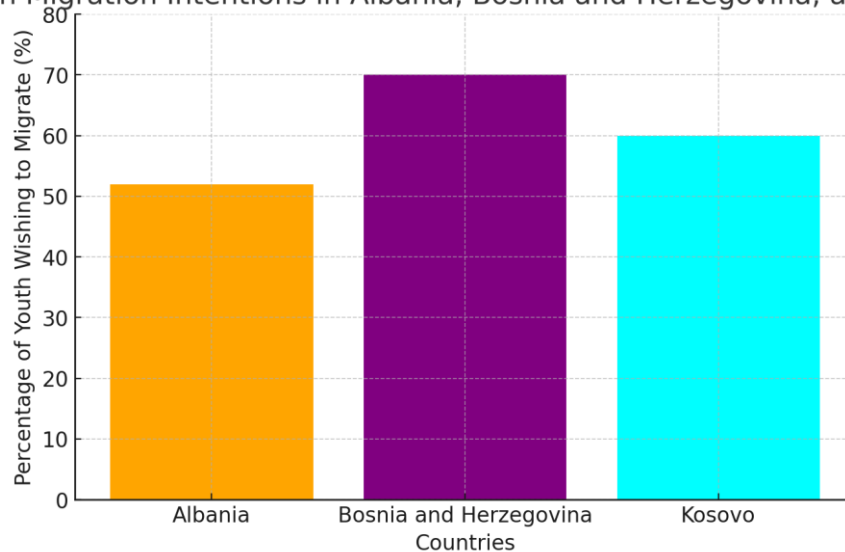
4.4 Civic Trust and Political Disengagement

Survey responses show **low levels of political trust and civic participation**:

- **58%** of respondents report having no trust in political parties or national institutions.
- Only **12%** have participated in public consultations or local governance processes.

Focus groups echoed these findings, with participants expressing skepticism toward decision-makers. Youth councils exist in some municipalities, but their impact is often constrained by lack of funding, training, or inclusion in policymaking.

Youth Migration Intentions in Albania, Bosnia and Herzegovina, and Kosovo



Data reveals that migration intentions are highest in Bosnia and Herzegovina (70%), followed by Kosovo (60%), and Albania (52%).

4.5 Exposure to Radicalization and Criminal Networks

Young people in BiH are exposed to **heightened risks of radicalization and crime**, particularly in underserved and marginalized areas. Survey results indicate:

- **29%** of respondents identified organized crime as a significant threat in their communities.

- **41%** associate extremist sympathies with **economic hardship, exclusion, and institutional distrust**, rather than religious ideology.

Interviewees emphasized that returning foreign fighters and stigmatized youth are especially vulnerable due to limited reintegration support.

4.6 Youth Identity and Religion

Data from the survey show diverse affiliations and a trend toward secularization:

- **49%** identify as Muslim, **30%** as Orthodox, **8%** as Catholic, and **7%** reported no religious affiliation.
- **13.5%** reported not attending religious services at all, while **24.3%** attend regularly (weekly or more).

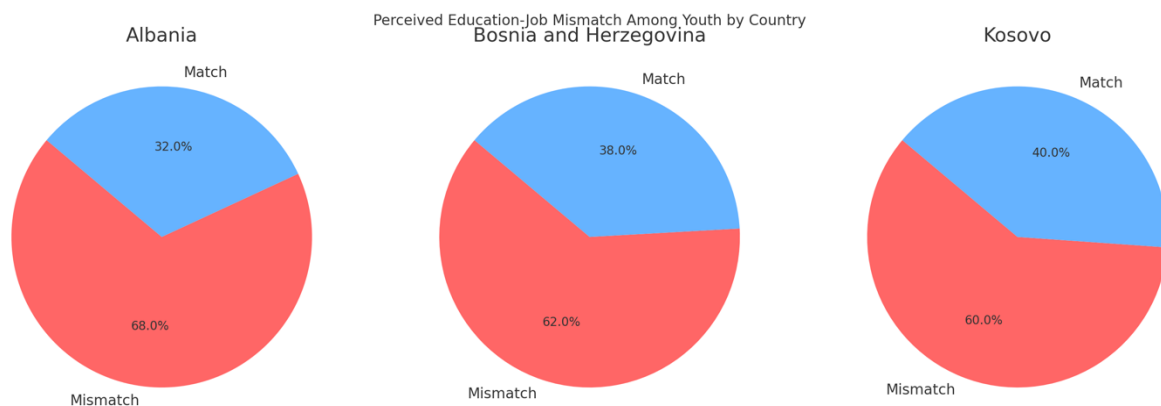
These figures reflect both the importance of religious identity for many and a growing segment of youth moving away from traditional practices.

4.7 Youth Profile and Sentiment

A composite analysis of survey data reveals the typical respondent as:

- 22 years old
- Urban-based
- Unemployed or a student
- Living with parents or extended family

While many youth express **personal optimism**, they remain **deeply pessimistic about their country's direction**—highlighting a key paradox: personal hope amid systemic frustration.



Data show percentage of youth in each country who feel their education is mismatched with job market needs: **Albania: 68% mismatch; Bosnia and Herzegovina: 62% mismatch; Kosovo: 60% mismatch.**

Be a Man Club Tuzla

In Bosnia, the **Be a Man Club Tuzla** serves as a positive example of youth intervention. This local initiative, aimed at promoting gender equality, healthy masculinity, and non-violent behaviour, stands out as a model for preventing violence and extremism among youth. It provides a safe space for high school and university students to engage in workshops focused on emotional literacy, mental health, and breaking harmful gender norms. Through its activities, young men are encouraged to embrace alternative roles, promote respect in relationships, and contribute to their communities positively.

4. Key Findings: Kosovo

This section summarizes findings from Kosovo based on survey responses, focus group discussions, and key informant interviews. Youth in Kosovo face systemic challenges tied to high unemployment, education-employment mismatches, gender disparities, and risks related to marginalization and radicalization.

4.1 Youth Unemployment and Economic Exclusion

Kosovo has one of the highest youth unemployment rates in the region:

- **Youth unemployment exceeds 40%**, with even higher figures among women and ethnic minorities.
- **33.7%** of youth aged 15–24 are classified as NEET (Not in Education, Employment, or Training).

Survey findings show:

- **74%** of respondents identify economic instability as their primary concern.
- **59%** do not believe they can find adequate employment within Kosovo’s current labour market.

4.2 Education Gaps and Skill Mismatches

Although education reforms are underway, many youths remain underprepared for the labour market:

- **66%** of respondents report a lack of access to job-relevant vocational training.
- **60%** state that their education does not match current job market needs.

Barriers include outdated curricula, limited private sector engagement, and a shortage of career guidance programs. FGDs confirmed that practical training is limited or unavailable in many schools, particularly in rural areas.

4.3 Gender Disparities and Social Norms

Survey and focus group data show that gender inequality remains a critical issue:

- Female youth unemployment stands at 28.7%, compared to 25.9% for men.
- Young women report higher rates of bullying, harassment, and workplace discrimination.

Cultural norms also influence attitudes toward gender roles. Focus group participants noted that many young men still believe women's primary role is domestic. This view restricts women’s access to public and economic life and contributes to their underrepresentation in decision-making processes.

High Rates of Femicide

Kosovo faces high rates of femicide and gender-based violence, an issue that directly affects youth resilience. These incidents highlight broader socio-economic vulnerabilities and deeply ingrained gender norms. Addressing gender-based violence is critical for improving youth resilience, as young people exposed to such violence are more likely to experience psychological distress and social isolation, both of which are significant risk factors for radicalization.

4.4 Political Disengagement and Institutional Distrust

Kosovar youth report limited participation in governance:

- **55%** feel disconnected from political institutions.
- Only **14%** have been involved in civic or governmental decision-making processes.

While some youths are active in NGOs or community initiatives, these spaces are often **urban-centric** and less accessible to youth from rural or ethnic minority communities.

4.5 Radicalization Risks and Inactivity

Kosovo’s history of foreign fighter recruitment continues to cast a shadow, though current risks are more nuanced. Survey data and interviews reveal:

- **46%** of youth believe radicalization is driven more by **economic exclusion and frustration** than ideology.
- **29%** identified **inactivity, social isolation, or lack of purpose** as factors contributing to radicalization among their peers.

FGD participants described this as an “identity vacuum,” especially among educated youth without employment prospects.

The radicalization in Kosovo is a youth phenomenon. A neglected explanatory factor has been the widespread inactivity among Kosovo youth. While interrelated to the socio-economic dimension, this factor is at the same time analytically different as it points out and recognizes the agency of those choosing a path of radicalization. This is related also to a widespread absence of perspectives concerning those that have studied and that are not considered economically poor. In this framework, what is at stake is a dynamic of frustration of expectations, and a promise of order and meaning in a context that lacks both. Inactivity and the absence of perspectives among Kosovo youth is related to another explanatory dimension, that of identity. The identity dimension is to be seen as a central factor in understanding and explaining the radicalization of both Kosovo and other Western Balkans youth.

4.6 Migration Pressures

Migration is a major strategy for coping with structural limitations:

- **Over 60%** of respondents expressed a desire to migrate to EU countries.
- Primary motivations include better employment opportunities, access to quality education, and safer living environments.

This outflow contributes to ongoing **brain drain**, with long-term consequences for Kosovo’s economic and demographic stability.

4.7 Positive Indicators: Civic Engagement and Youth Agency

Despite significant challenges, survey data show encouraging levels of **peer-led engagement**:

- **100%** of respondents reported participation in at least one structured youth initiative (e.g. mentorship, education, or advocacy programs).
- Respondents emphasized the value of **youth-driven community projects** in building resilience and reducing isolation.

One youth leader stated:

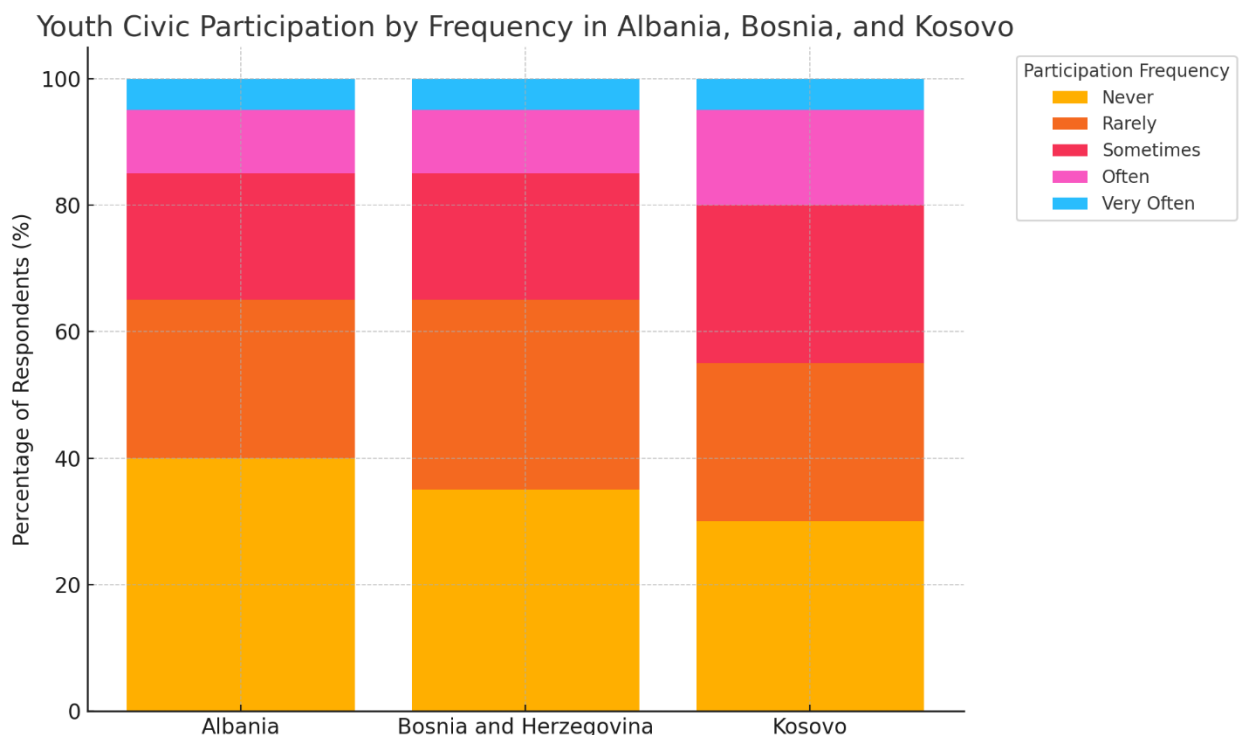
“What makes us stay is the chance to make a difference—even if it’s in our neighbourhood or school. We need more spaces where we’re taken seriously.”

Indicator	Albania	Bosnia & Herzegovina	Kosovo
Youth Unemployment Rate	27%	26.5%	40%+
Desire to Migrate	52%	70%+	60%+
Perceived Job Mismatch	68%	62%	60%
Civic Engagement (Participation)	Low	12%	14%
Exposure to Hate Speech	12%	N/A	N/A

Addressing Femicide and Gender-Based Violence

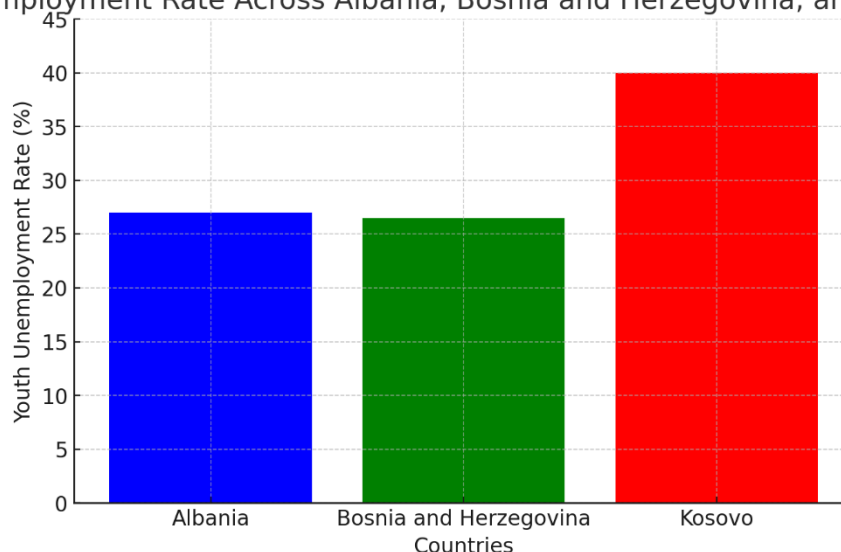
In Kosovo, femicide and gender-based violence are pressing issues, reflecting systemic gender inequalities that continue to affect youth, particularly young women. A substantial percentage of youth in Kosovo acknowledge the prevalence of gender-based violence, and there is a notable difference in how male and female youth perceive responsibility in cases of sexual violence. The country faces challenges in overcoming deep-rooted traditional gender norms, but initiatives aimed at addressing these issues, through education and empowerment programs, are beginning to gain traction. However, continuous efforts are required to challenge harmful cultural perceptions and provide both victims and perpetrators with the tools to break the cycle of violence.

These case studies underline the urgency of tackling systemic issues through both reactive measures (like legal reforms) and proactive community-based interventions, focusing on education, gender equality, and youth empowerment as key elements in building resilience against extremism and violence.



The chart illustrates youth civic participation in Albania, Bosnia and Herzegovina, and Kosovo. It shows that a significant portion of youth in all three countries rarely or never engage in civic activities, with only a small percentage participating often or very often.

Youth Unemployment Rate Across Albania, Bosnia and Herzegovina, and Kosovo (2023)



As shown, Kosovo has the highest unemployment rate at over 40%, followed by Albania at 27%, and Bosnia and Herzegovina at 26.5%.

5. Cross-Cutting Regional Opportunities

This section identifies regional opportunities for enhancing youth resilience across Albania, Bosnia and Herzegovina, and Kosovo, based on common patterns revealed through empirical data. Despite national differences, several overlapping challenges and entry points provide a foundation for coordinated interventions across the Western Balkans.

5.1 Aligning Education and Employment Systems

Survey results across all three countries reveal a widespread **skills mismatch** between formal education and labour market needs:

- Over **60%** of youth in each country reported that their education did not adequately prepare them for employment.
- Participation in vocational training and non-formal education remains limited, particularly in rural areas.

Opportunity: Governments and educational institutions should prioritize dual-education models, expand career guidance services, and increase private sector collaboration in vocational curricula development.

5.2 Expanding the Youth Guarantee Framework

All three countries have expressed interest in or begun piloting **Youth Guarantee programs**, but implementation remains inconsistent:

- Albania has adopted an action plan but lacks broad rollout.
- BiH has partial alignment at entity level, but no national implementation plan.
- Kosovo has initiated pilots in select municipalities.

Opportunity: Regional alignment around the EU Youth Guarantee model could ensure that all young people receive a quality offer of employment, education, or training within four months of becoming unemployed or leaving school.

5.3 Combating Youth Brain Drain

More than **half of youth respondents in all three countries** expressed a desire to migrate, citing economic insecurity, lack of institutional trust, and political exclusion.

Opportunity: Investments in youth entrepreneurship, innovation hubs, and inclusive local job markets—especially in smaller municipalities—can offer viable alternatives to migration. Regional cooperation could also promote **circular migration** strategies that retain ties with diaspora youth.

5.4 Preventing Radicalization Through Resilience-Building

Empirical findings indicate that radicalization is often driven not by ideology, but by:

- Economic marginalization
- Social exclusion
- Political alienation
- Online exposure to extremist narratives

Opportunity: A coordinated regional approach to **preventing violent extremism (PVE)** should focus on:

- Civic education
- Digital literacy
- Mentorship and peer-led interventions
- Local reintegration programs for returnees

5.5 Enhancing Local Youth Infrastructure

All three countries show weak local-level engagement structures:

- Fewer than half of municipalities have functional youth councils or youth offices.
- Where they exist, they often lack funding, legitimacy, or inclusiveness.

Opportunity: Regional donors and national governments should invest in sustainable youth participation mechanisms—especially at the municipal level. This includes funding for youth centres, participatory budgeting, and structured roles for youth in local safety councils.

5.6 Promoting Inclusive Youth Policies

Findings show that **marginalized youth groups**—including Roma, LGBTQI+, and youth in rural areas—are disproportionately affected by exclusion and underrepresentation.

Opportunity: Youth policies should be disaggregated by gender, ethnicity, and geography, with targeted funding to support inclusion, safety, and leadership development. Regional networks and civil society platforms can share good practices and tools to improve outreach to underrepresented youth.

6. Good Practices and Lessons Learned

What Worked Effectively in Strengthening Youth Resilience

Across Albania, Bosnia and Herzegovina, and Kosovo, several targeted interventions have effectively strengthened youth resilience, particularly in marginalized communities. The integration of sports programs, capacity-building initiatives, and community mobilization efforts has provided young people with opportunities for personal development, civic engagement, and crime prevention. Insights from interviews and focus groups reinforce the impact of these approaches and illustrate how different stakeholders collaborate to create safer environments for youth.

Albania: Sports as a Tool for Youth Inclusion and Violence Prevention

A sports-based intervention designed for marginalized communities in Albania has proven highly effective in fostering social cohesion and reducing youth involvement in crime and violence. Interviews with program participants reveal that engaging in structured team

sports provided a sense of belonging and discipline, which helped many young people stay away from delinquent behaviour.

One young participant from the program noted:

"Before joining this initiative, I had nothing to do after school, and the streets were the only option. Now, I have a team, a coach, and a goal. I feel part of something positive."

Moreover, coaches and mentors played a critical role in guiding at-risk youth by offering not just athletic training but also life coaching. As a result, participants developed stronger peer relationships and communication skills, which contributed to a broader reduction in community tensions.

Bosnia and Herzegovina: Strengthening Collaboration Between Local Structures and Youth Councils

In Bosnia and Herzegovina, local youth councils and public safety councils have worked together to increase youth participation in decision-making processes. Findings from focus group discussions with youth representatives and municipal officials indicate that regular communication and collaboration between these structures have led to more youth-centered policies.

A municipal official from Sarajevo stated:

"The more we engage young people in our safety initiatives, the more they take responsibility for their communities. They bring fresh ideas and energy, which has significantly improved our outreach efforts."

By training youth councils on policy advocacy, leadership, and problem-solving, young people have gained the skills necessary to propose and implement local initiatives. This collaboration has strengthened trust between youth and government institutions, reducing feelings of exclusion and disengagement that can often push young people toward negative influences.

Kosovo: Community Mobilization and Civic Engagement

In Kosovo, a youth resilience program focused on community mobilization and peer-led initiatives has helped create a sense of collective responsibility among young people. Through volunteer work, social campaigns, and engagement with local public safety councils, youth have taken an active role in crime prevention and community safety.

One youth leader from the initiative shared:

"When we work together to improve our neighbourhood, we feel like we actually belong here. Instead of waiting for someone else to solve our problems, we take action ourselves."

This program has been particularly effective in fostering a sense of empowerment, as young people have been given tools and platforms to influence change in their communities. By engaging youth in structured discussions on safety, crime prevention, and conflict resolution, the initiative has reduced risks of delinquency and radicalization.

Challenges Encountered and How They Were Managed

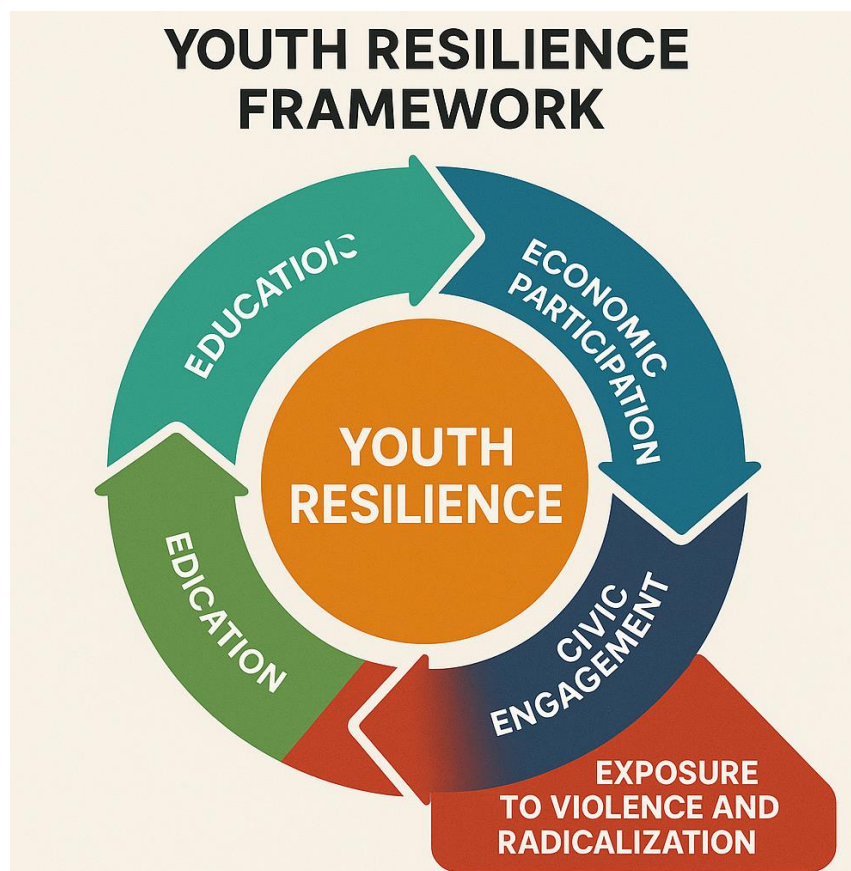
While the initiatives in Albania, Bosnia and Herzegovina, and Kosovo achieved significant successes, they also faced several challenges that required adaptive strategies and strong collaboration to overcome.

Sustaining Funding and Institutional Support

One of the most pressing challenges was ensuring that programs could continue beyond the initial project cycle. Many initiatives—such as the sports program in Albania, youth councils in Bosnia and Herzegovina, and community mobilization in Kosovo—needed long-term funding and institutional backing. Without sustained support, there was a risk of losing momentum and impact.

A major concern for the civil society sector was the shifting priorities of international donors, many of whom moved toward security-focused funding rather than youth development and prevention-based initiatives. As donors restructured their support toward hard security interventions, civil society organizations (CSOs) struggled to maintain funding for grassroots resilience-building programs.

To address this, project teams actively engaged with municipalities, private sector partners, and international donors to establish co-funding mechanisms. In Bosnia and Herzegovina, youth councils successfully advocated for municipal funding, ensuring their initiatives were integrated into local governance structures. Similarly, in Kosovo, community engagement projects were linked to ongoing national strategies, increasing their sustainability. However, the need for consistent, flexible, and locally-driven funding remains an ongoing challenge for CSOs working in youth resilience.



Social and Cultural Barriers to Youth Engagement

Cultural norms and societal expectations often limited youth participation, particularly in governance and decision-making roles. In rural areas and traditional communities, young people—especially women—faced resistance when trying to engage in leadership activities.

To overcome this, family engagement and awareness campaigns were implemented to emphasize the positive impact of youth involvement. In Albania, the sports initiative specifically worked with parents and community leaders to highlight the benefits of structured youth programs, leading to broader acceptance and increased participation. In Bosnia and Herzegovina, mentorship programs were tailored to encourage young women to take leadership roles in youth councils, challenging existing gender norms.

Coordination Between Stakeholders

Collaboration between government institutions, civil society organizations (CSOs), and international partners was sometimes inefficient, leading to overlapping initiatives or delays in program implementation. Different actors often worked toward similar goals but lacked a unified strategy to align their efforts effectively.

To address this, project teams established joint action plans, regular consultation meetings, and shared digital resource platforms to enhance communication and coordination. In Kosovo, local youth councils and public safety councils began working more closely, bridging the gap between youth voices and policy implementation. In Bosnia and Herzegovina, structured engagement between CSOs and municipal authorities ensured that programs complemented rather than duplicated each other.

Outreach to Marginalized Communities

The program served as a valuable opportunity to enhance and balance participation between rural and urban areas. Through a series of programmatic activities, including capacity-building workshops and training sessions, youth were equipped with essential skills and knowledge. Partner organizations in Albania, Bosnia and Herzegovina, and Kosovo developed tailored training manuals focused on community-based approaches, radicalization prevention, and life skills development. These events stimulated local dialogue and contributed to the revitalization of local youth councils, which received technical support through the program.

General Difficulties and Broader Context

Beyond the specific challenges encountered during implementation, a major difficulty faced by civil society organizations (CSOs) across Albania, Bosnia and Herzegovina, and Kosovo is the broader regional and political context. The Western Balkans remain heavily focused on EU integration reforms, which, while essential for long-term development, often overshadow immediate needs at the local level.

Governments in the region are primarily engaged in fulfilling high-level political and economic reforms required for EU accession, focusing on legislative changes, judicial improvements, and regional diplomacy. However, this top-down approach often neglects the day-to-day struggles of local communities and youth. Many young people continue to face unemployment, lack of social services, and exclusion from decision-making, while funding for community-driven programs remains limited.

Additionally, with international donors shifting towards security-oriented funding, prevention-based programs that focus on youth empowerment, education, and local resilience-building are often deprioritized. This has left a gap in sustainable, long-term support for youth and community engagement, even though these initiatives are critical to reducing vulnerabilities to crime, violence, and radicalization.

In this context, it becomes increasingly difficult for CSOs to secure resources and institutional backing for their initiatives. Local governments and international actors need to recognize that youth resilience is not just a social issue—it is a security and stability issue. Without sustained support, the risks of disengagement, migration, and vulnerability to criminal or extremist networks will only grow.

7. Conclusions and Policy Reflections

This empirical assessment offers a unique comparative insight into the lived realities of youth in Albania, Bosnia and Herzegovina, and Kosovo. Across the region, youth face persistent and interconnected challenges that undermine their development, stability, and long-term resilience. These include high unemployment, educational mismatches, weak civic

infrastructure, and limited trust in public institutions. While these findings are not new, this report reinforces them through first-hand data collection and youth-centered analysis.

What distinguishes this study is its reflection on how **structural fragility and perceived stagnation are shaping a regional youth identity**—one defined increasingly by frustration, outward migration, and political disengagement. Youth across all three countries overwhelmingly report a sense of exclusion—not only from economic life but from public discourse and decision-making. Yet despite these obstacles, young people consistently demonstrate a capacity for critical reflection, agency, and even optimism about their own futures, albeit less so about their countries’. This divergence highlights a crucial paradox: personal ambition is alive, but public trust is eroding.

The regional study shows that youth resilience is closely linked to the quality and relevance of education, institutional trust, and the availability of opportunities for participation and employment. Across Albania, Bosnia and Herzegovina, and Kosovo, a persistent mismatch between education and labour market demands contributes to frustration, exclusion, and disengagement. In Albania specifically, 68% of surveyed youth reported that their education does not align with labour market opportunities, while 58% expressed dissatisfaction with the quality of public education and 72% had never participated in vocational training. These patterns are highly relevant to crime prevention because when education fails to provide competencies, belonging, or credible pathways to mobility, young people may become more susceptible to informal or illicit alternatives, especially in contexts of economic insecurity and weak local support systems.

Several critical insights emerge from the data:

- **Migration as a rational coping strategy:** For many youth, emigration is not merely a dream—it is a calculated response to structural failures at home. The strong desire to leave reflects not just economic need, but a broader absence of institutional credibility and accountability. This points to a deeper legitimacy crisis facing governments across the region.
- **Radicalization is less about belief and more about belonging:** The findings reinforce that violent extremism among youth is rarely rooted in deep ideological commitment. Rather, it emerges in contexts where economic despair, identity fragmentation, and a lack of meaning prevail. Addressing radicalization, then, is less about deradicalizing ideas and more about creating spaces of inclusion, opportunity, and voice.
- **Youth participation is systemically undervalued:** While youth programs exist in all three countries, they often operate at the margins—either donor-driven, poorly integrated, or implemented through tokenistic structures. Local governments frequently lack the budgetary or institutional capacity to support youth systematically. Until youth councils, school governance, and participatory budgeting become embedded and resourced, meaningful engagement will remain aspirational.
- **Gender and geographic inequality are widening the resilience gap:** young women, Roma youth, and those from rural communities face disproportionately higher levels of exclusion, discrimination, and risk. Interventions must go beyond the rhetoric of inclusion and instead offer differentiated programming with equity at the centre. One-size-fits-all youth policy is not just ineffective—it is exclusionary by design.

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patterns are highly relevant to crime prevention because when education fails to provide competencies, belonging, or credible pathways to mobility, young people may become more susceptible to informal or illicit alternatives, especially in contexts of economic insecurity and weak local support systems.

Critically, the report assumes that youth are not passive beneficiaries but **political and social actors**—capable of challenging, reshaping, and transforming their societies if given the tools and space to do so. The implications for policymakers, civil society, and donors are clear: **investments in youth resilience are not simply about protection—they are about transformation.** Failing to recognize this will not only deepen existing discontent but may also accelerate outflows of talent, political extremism, and social fragmentation.

Despite the growing alignment of Western Balkan policies with the **EU acquis and related strategic frameworks**, the literature indicates that the translation of these normative commitments into effective preventive practices remains uneven. While EU directives, enlargement conditionality, and regional policy initiatives emphasise education, youth participation, and social inclusion as key pillars of crime prevention, implementation gaps persist due to limited institutional capacity, fragmented governance structures, and persistent socio-economic inequalities. As a result, the effectiveness of EU-inspired reforms depends not only on legislative harmonisation but also on the **ability of national and local institutions to operationalise these frameworks through coordinated education, youth, and social policies that address the structural drivers of youth vulnerability to crime.**

Ultimately, regional resilience requires more than programs—it demands political will. Youth need to be seen not as a demographic challenge but as **co-authors of the region’s democratic, economic, and social future.** If this generation is to remain rooted in the Western Balkans, institutions must show they are worth investing in—and worth staying for.

Conclusions and Policy Recommendations

1. For Governments

- **Youth-Cantered Crime Prevention and Resilience Building**
 - Institutionalize youth engagement through national and local frameworks, such as youth councils and municipal youth strategies.
 - Recognize sports, education, arts, and civic initiatives as strategic tools for crime prevention, not just social development.
 - Integrate youth development into national education, employment, public safety, and social protection strategies.
 - Prioritize stable public funding for youth-led initiatives and local crime prevention mechanisms.
 - Develop inclusive policies that reflect the diverse experiences of youth, particularly from ethnic minority, LGBTQI+, and rural communities.
- **Education-to-Employment Alignment**
 - Reform education systems to better align with labour market needs.
 - Introduce dual-education models, career counselling, and structured internships or apprenticeships.
 - Incentivize private sector collaboration in youth employment and innovation.
- **Preventing Radicalization and Extremism**
 - Promote civic education, media literacy, and inclusive citizenship within formal education systems.
 - Support digital counter-narrative campaigns targeting online extremism and hate speech.

- Institutionalize national and local reintegration strategies for youth disengaging from extremist ideologies or crime.
- **Gender and Minority Protection**
 - Enforce anti-discrimination laws and scale up services for gender-based violence and exclusion.
 - Increase targeted funding for programs supporting marginalized groups like Roma youth and those from rural areas.

2. For Law Enforcement Agencies

- **Youth-Friendly Policing**
 - Establish community policing units specifically trained to engage with young people constructively.
 - Prevent youth profiling and discriminatory practices during law enforcement encounters.
 - Train officers in cultural sensitivity, youth communication, and non-violent conflict resolution.
- **School and Community Safety Collaboration**
 - Collaborate with schools, youth workers, and CSOs to develop early-warning systems and violence prevention protocols.
 - Regularly assess and ensure the safety of public spaces frequented by youth, including online platforms.
- **Countering Online and Offline Extremism**
 - Coordinate with digital platforms and cybercrime units to monitor and respond to online radicalization.
 - Enhance law enforcement capacity for digital investigations and promote positive digital engagement.
- **Youth Rehabilitation and Diversion**
 - Expand diversion programs that offer alternatives to incarceration, focusing on education, training, and psychological support.
 - Strengthen reintegration systems in collaboration with CSOs and social services for youth recovering from criminal or extremist activities.

3. For Local Governments and Agencies

- **Youth Infrastructure and Participation**
 - Establish and fund municipal youth offices, youth councils, and accessible youth centres.
 - Systematically include youth in local policymaking and development planning.
- **Community-Based Crime Prevention**
 - Set up Local Public Safety Councils with youth representatives, educators, civil society actors, and police to co-create solutions.
 - Use participatory budgeting to fund youth-led community and safety projects.
- **Youth Employment and Innovation Hubs**
 - Develop local youth employment centres offering career guidance, entrepreneurship support, and vocational training.
 - Encourage partnerships with businesses to create internships and apprenticeships.
- **Outreach to Vulnerable Youth**
 - Create programs tailored for NEET youth, Roma youth, and those from rural or marginalized communities.

- Establish mobile outreach teams to engage with youth in hard-to-reach areas.

4. For Schools and Educational Institutions

- **Safe and Inclusive School Environments**
 - Implement comprehensive School Security Plans in collaboration with police, health services, and community actors.
 - Train school personnel to recognize and address bullying, mental health issues, and signs of radicalization.
- **Relevant and Inclusive Curriculum**
 - Integrate peace education, civic engagement, digital literacy, and critical thinking into core curricula.
 - Promote inclusive historical narratives and intercultural understanding.
- **Career Preparation and Skill Building**
 - Facilitate mentorship programs, career exploration visits, and job-readiness activities.
 - Embed soft skills like communication and collaboration into regular learning activities.
- **Student Participation in Governance**
 - Establish empowered student councils and ensure their input informs school decision-making.
 - Support student-led initiatives on safety, school improvement, and civic advocacy.

Sustainability Strategies

To ensure the long-term impact of youth-focused crime prevention and resilience programs:

- Shift from project-based approaches to policy-integrated, structural programming.
- Embed youth development into national and local policies, education systems, and municipal budgets.
- Diversify funding through public-private partnerships, international support, and private sector involvement.
- Build institutional capacity at both national and local levels to manage and sustain youth programs.

Scaling-Up Opportunities Across the Western Balkans

Successful models can be replicated regionally:

- Albania’s sports-based inclusion program provides an effective model for engagement and crime prevention.
- Bosnia and Herzegovina’s youth council empowerment strategy increases civic participation and governance inclusion.
- Kosovo’s local public safety councils foster trust between youth and institutions and can be expanded across the region.

Establishing a **Western Balkans Youth Resilience Network** will strengthen regional collaboration, sharing tools, policy frameworks, and donor coordination.

Annexes

Annex 1: Survey Questionnaire for Youth, CSOs, CVE Representatives, and Other Stakeholders

Section 1: Demographics

1. **Age:**
[Dropdown: 14-18, 19-24, 25-29]
2. **Gender:**
[Male, Female, Prefer not to say]
3. **Country of residence:**
 - Albania
 - Bosnia & Herzegovina
 - Kosovo
4. **Education level:**
 - Primary
 - Secondary
 - Higher Education
 - Other
5. **Employment status:**
 - Employed
 - Unemployed
 - Student
 - Other
6. **Are you affiliated with any CSO, youth program, or CVE initiative?**
[Yes/No]

Section 2: Youth Resilience & Program Impact

7. **What are the biggest challenges affecting youth in your community?**
[Select all that apply]
 - Economic instability
 - Limited access to education and training
 - Political instability
 - Social exclusion/discrimination
 - Radicalization/extremism threats
 - Other (please specify)
8. **How often do you engage in community or civic activities?**
 - Never
 - Rarely
 - Sometimes
 - Often
 - Very often
9. **Do you believe existing programs help improve youth resilience?**
 - Yes
 - No
 - Not sure
10. **Which types of youth support programs have you participated in?**
[Select all that apply]
 - Education/training programs
 - Civic engagement initiatives
 - Mentorship programs
 - Awareness campaigns
 - None

Section 3: CVE & Policy Effectiveness

11. **How would you rate your awareness of radicalization risks among youth?**
 - Very low
 - Low

- Moderate
 - High
 - Very high
12. **What support mechanisms do you believe are most effective in strengthening youth resilience?**
[Select all that apply]
- More education/training programs
 - Better economic opportunities
 - More youth involvement in decision-making
 - Stronger community networks
 - Targeted CVE initiatives
 - Other (please specify)
13. **What additional interventions do you think are needed in your region?**

Annex 2: Focus Group Discussion for Youth, Local Safety Council Members, CVE Representatives, Educators, Community Leaders

Duration: 40-60 minutes

Discussion Topics & Questions

A. Introduction & Warm-up

1. Can you introduce yourself and briefly explain your role in the community?
2. What are some key challenges youth face in your region?

B. Youth Resilience & Program Impact

3. What does "youth resilience" mean to you?
4. Have you or someone you know benefited from any youth support program? What was the experience like?
5. Are there sufficient opportunities for youth to participate in community decision-making?

C. Perceptions on Radicalization & Prevention Mechanisms

6. Do you think radicalization is an issue in your community? Why or why not?
7. How well do existing CVE programs address these concerns?
8. What are some early warning signs of radicalization in youth?

D. Future Interventions & Recommendations

9. What types of programs or policies would have the most impact on youth resilience?
10. What can local governments, institutions, and CSOs do better to support youth?
11. How can youth play a more active role in shaping the future of their communities?

Annex 3: Key Informant Interview with Policymakers, Research Experts, CSO Leaders, P/CVE Stakeholders

Semi-structured interviews (30-60 min)

Interview Questions

A. Background Information

1. Can you describe your role and experience related to youth resilience or CVE?

B. Regional Challenges & Youth Resilience

2. What do you see as the biggest threats to youth resilience in the Western Balkans?
3. How has your institution/organization addressed these issues?

C. Effectiveness of Current Programs & Policies

4. How would you assess the effectiveness of existing youth resilience programs?
5. Are there any gaps in the current approaches that need to be addressed?

D. Institutional Collaboration & Capacity

6. How well do institutions, CSOs, and community groups collaborate on youth resilience initiatives?

7. What are the main challenges to better regional cooperation?

E. Future Interventions & Recommendations

8. What policy recommendations would you suggest for strengthening youth resilience?

9. How can regional networks like IANS be better leveraged for impact?

10. What are the top three priorities for improving youth resilience in the next five years?

References

- European Commission. (2023). *Western Balkans: 2023 Enlargement Package*. Brussels: European Commission.
- European Commission. (2022). *Communication on EU Enlargement Policy*. Brussels: European Commission.
- UNDP. (2022). *Preventing Violent Extremism Through Youth Engagement in the Western Balkans*. UNDP Regional Bureau for Europe and the CIS.
- UNDP. (2022). *Human Development Report: Uncertain Times, Unsettled Lives*. New York: UNDP.
- UNDP. (2020). *Youth and Violent Extremism on Social Media – Mapping the Research*. New York: UNDP.
- World Bank. (2022). *Western Balkans Regular Economic Report: Addressing Youth Unemployment and Skills Mismatch*. Washington, D.C.: World Bank Group.
- World Bank. (2023). *Jobs Diagnostic Albania*. Washington, D.C.: World Bank Group.
- OECD. (2022). *Strengthening Youth Engagement in the Western Balkans*. Paris: OECD.
- ILO. (2021). *Youth Unemployment and Informality in Southeast Europe: Policy Challenges and Responses*. Geneva: International Labour Organization.
- UNODC. (2021). *Crime Trends and Challenges in the Western Balkans: A Regional Assessment*. Vienna: UNODC.
- OSCE. (2021). *Youth and Security: Understanding the Role of Young People in Preventing Crime and Radicalization in the Western Balkans*. Vienna: OSCE.
- OSCE. (2023). *Status of Education and Radicalization in Bosnia and Herzegovina*. Sarajevo: OSCE Mission.
- Council of Europe. (2022). *Youth Work and Crime Prevention in South-Eastern Europe: Best Practices and Policy Recommendations*. Strasbourg: Council of Europe.
- Friedrich-Ebert-Stiftung (FES). (2021). *Youth Assessment Review Southeast Europe 2021: The Future at Stake*. Berlin: FES.
- European Youth Forum. (2023). *Youth Progress Index 2023*. Brussels: European Youth Forum.
- Regional Cooperation Council. (2023). *Balkan Barometer 2023: Public and Business Opinion Survey*. Sarajevo: RCC.
- European Parliament Research Service. (2022). *Disinformation in the Western Balkans: A Threat to Democracy*. Brussels: EPRS.
- EU RAN (Radicalisation Awareness Network). (2023). *Education and Prevention of Radicalisation in the Western Balkans*. Brussels: European Commission.
- Institute for Democracy and Mediation (IDM). (2022). *Youth and Political Participation in Albania*. Tirana: IDM.
- Center for Security Studies (CSS). (2023). *Returnees and Reintegration: CVE Strategies in the Western Balkans*. Sarajevo: CSS.
- EUROPOL. (2023). *Online Extremism and Youth Recruitment Trends in the Balkans*. The Hague: EUROPOL.
- Western Balkans Counter-Terrorism Initiative (WBCTI). (2023). *Regional Progress Review on CVE Measures*. Vienna: WBCTI.
- Hirschi, T. (1969). *Causes of delinquency*. University of California Press.
- OSCE. (2021). *Youth and security: Understanding the role of young people in preventing crime and radicalization in the Western Balkans*.
- UNDP. (2022). *Preventing violent extremism through youth engagement in the Western Balkans*.
- World Bank. (2022). *Western Balkans regular economic report: Addressing youth unemployment and skills mismatch*.
- World Bank. (2023). *Jobs diagnostic Albania*.
- Pathways to Resilience: Regional Insights from the Western Balkans (2025).
- Council of Europe. (2022). *Youth work and crime prevention in South-Eastern Europe: Best practices and policy recommendations*.
- European Commission. (2018). *EU Youth Strategy 2019–2027*.
- European Commission. (2020). *Achieving the European Education Area by 2025*.

- European Commission. (2021). EU Strategy to Tackle Organised Crime 2021–2025.
- European Commission. (2023). Western Balkans: 2023 Enlargement Package.
- OECD. (2022). Strengthening youth engagement in the Western Balkans.
- OSCE. (2021). Youth and security: Understanding the role of young people in preventing crime and radicalization in the Western Balkans.
- Radicalisation Awareness Network (RAN). (2023). Education and prevention of radicalisation in the Western Balkans.
- Regional Cooperation Council. (2023). Balkan Barometer 2023.
- UNDP. (2022). Preventing violent extremism through youth engagement in the Western Balkans.
- UNODC. (2021). Crime trends and challenges in the Western Balkans: A regional assessment.
- World Bank. (2022). Western Balkans regular economic report: Addressing youth unemployment and skills mismatch.
- European Commission: <https://ec.europa.eu>
- UNDP: <https://www.undp.org>
- World Bank Western Balkans: <https://www.worldbank.org/en/region/eca/western-balkans>
- UNODC: <https://www.unodc.org>
- OSCE: <https://www.osce.org>
- Council of Europe – Youth Sector: <https://www.coe.int/en/web/youth>
- Friedrich-Ebert-Stiftung (FES): <https://www.fes.de/en>
- European Youth Forum: <https://www.youthforum.org>
- International Labour Organization (ILO): <https://www.ilo.org>
- Regional Cooperation Council: <https://www.rcc.int>
- EU RAN: https://home-affairs.ec.europa.eu/networks/radicalisation-awareness-network-ran_en
- EUROPOL: <https://www.europol.europa.eu>
- European Parliament Think Tank (EPRS): <https://www.europarl.europa.eu/thinktank>
- Institute for Democracy and Mediation (IDM): <https://idmalbania.org>

NONLINEAR EFFECTS OF INFLATION ON ECONOMIC GROWTH: A DYNAMIC PANEL THRESHOLD ANALYSIS

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Abstract

This research article analyses the nonlinear relationship between inflation and economic growth with a focus on the threshold effect for the case of Western Balkan countries. Studies reveal that low inflation positively influence the economy resulting with economic expansion, however higher inflation cause macroeconomic instability and economic downturn. To examine the nonlinear relationship, this research uses the panel regression techniques based on fixed and random effects, incorporating the quadratic term, as well as the dynamic panel threshold model, allowing the impact of inflation on economic growth to vary depending on the level of inflation. The study uses panel data considering the six Western Balkan (WB) countries and the time period 2000-2024. The models also include the lagged dependent variable to capture growth persistence and key macroeconomic control variables such as investment, trade openness, government consumption and population growth. The regression results in all models suggest a positive correlation between inflation and economic growth, though the negative sign of quadratic term of inflation, confirming the nonlinear relationship between inflation and economic growth. Also, the empirical results of the dynamic panel threshold model reveal the existence of a statistically significant inflation threshold of 8.7%, below which inflation has a positive effect on economic growth, and above which it exerts a negative impact. These findings suggest that maintaining inflation within a moderate range is essential for sustaining long-term economic growth in the region.

Keywords: Nonlinear, Dynamic Panel, Threshold Analysis, Inflation, Economic Growth

1. Introduction

The increase of overall price level has become one of the most debated topics in both academic and policy circles. Recent global political events are raising concerns about the financial and macroeconomic stability of all countries, including those of the Western Balkans. Inflation, as a key indicator of a country's economic “health,” affects economic growth differently depending on its rate. Although this relationship is widely researched by several authors, there are few studies that empirically address this issue for Western Balkan countries, even empirical studies using the latest data lack, therefore this study's aim is to fill this gap.

Despite the economic implication of inflation, there is not still conclusive evidence on the “true” effects and the specific threshold level that spurs growth (Akinsola and Odhiambo, 2017). Some studies find a positive relationship between inflation and economic growth (Mallik and Chowdhury, 2001; Benhabib and Spiegel 2009), while others a negative one (Barro, 1995; Bruno and Easterly 1998; Gillman and Harris, 2010; Owusu and Bökemeier, 2026). Furthermore, some studies reveal no significant relationship among them (Cameron, Hum and Simpson, 1996). The widely used dynamic threshold analysis prove that low inflation increases the economic growth, while high inflation harms economic growth (Fisher, 1993; Bick, 2010; Vinayagathan 2013; Azam and Khan, 2020; Owusu and Bökemeier, 2026). Most of studies reveal that the threshold is lower for developed economies (around 2-3 %) and much higher for less developed and developing economies (around 12-17%). However, regardless of the level of economic development, the high increase of inflation rate shrink investment and reduce consumption that in turn depresses the economy.

The next section provides a brief literature review of some relevant studies on the relationship between inflation and economic growth. Section three introduces the research methodology based on the dynamic panel threshold analysis and used data. Section four releases the empirical results of this study and the section six conclude.

2. Brief Literature Review

The relationship among inflation and growth performance continuously has been in the centre of debates among policymakers and research community, even nowadays. Many scholars recently revisited this relationship for different economies including both developed and developing ones. It has been researched from different angles and empirical perspectives using miscellaneous methods and techniques (Khan and Hanif, 2020; Azam and Khan, 2022; He, 2023; Owusu and Bökemeier, 2026). Most of findings disclose that moderate inflation is positively or weakly correlated with economic expansion, while excessive inflation in most of situations is associated with macroeconomic instability and lower growth performance. Accordingly, early research by Sarel (1996) considered the potential for non-linear impacts of inflation on growth and discovered that growth is at risk if inflation is above 8%, while inflation rates below 8% provide an insignificant association. Additionally, the thresholds vary based on an economy's degree of development. Khan and Senhadji (2001) found that inflation has a negative relationship with economic growth over the break points, which are 1-3% for industrialized nations and 7-11% for underdeveloped economies. The similar conclusion between advanced and emerging economies was also reached by López-Villavicencio and Mignon (2011), who found that advanced economies had a lower threshold than emerging ones. Actually, they observed that industrialized economies have a lower threshold level of inflation than developing and emerging economies. The threshold levels were also reached by Yilmazkuday (2013) while modelling the connection between inflation and economic growth for a panel of 138 countries and a robust threshold was identified around 19% where further increases in inflation significantly decrease long-run growth. Furthermore, Kremer, Bick and Nautz (2013) analysed a large panel of 124 countries and found an inflation target of 2% for

industrialized countries, and a level of inflation of 17% and above for non-industrialized countries that lowers economic growth. Ndoricimpa (2017) used a dynamic panel threshold regression model to investigate the non-linearities in the relationship between inflation and growth over various time periods in African nations and validated the existence of a threshold effect of inflation on economic growth.

Recent studies also find higher threshold level for developing and lower for developed economies, for instance Azam and Khan (2022) provide evidence for 27 developing and developed countries showing that inflation becomes detrimental to growth only after exceeding certain threshold levels of around 12% for developing and 5% for developed economies, implying that moderate inflation may not hinder, but can even support economic growth. Owusu and Bökemeier (2026) provide a new and extensive study applying several panel regression techniques as well as a dynamic threshold GMM model to 31 emerging economies confirming that inflation has a positive impact on growth in regimes with low inflation, but a negative effect once inflation surpasses a critical threshold of around 2%.

Based on the majority of reviewed empirical studies one can be concluded that inflation is not uniformly harmful, but its effects on growth depend critically on its magnitude and macroeconomic context of countries.

3. Methodology and Data

To examine the impact of inflation on economic growth, the panel regression analysis is performed by means of panel regression techniques, whereas for investigating the nonlinear relationship a quadratic term is included in the fixed and random effects models as well as a dynamic panel threshold model is employed as a more advanced model, which allows the effect of inflation on growth to vary across different inflation regimes. Using panel data for Western Balkan countries, the model allows the effect of inflation to vary depending on whether it is below or above an estimated threshold level. The estimation follows a Hansen-type threshold approach combined with dynamic panel techniques to address endogeneity and persistence in growth. Control variables commonly used in growth regressions are included, such as investment (gross fixed capital formation as percent of GDP), trade openness, government consumption and population growth. The threshold value is determined endogenously, and its statistical significance is tested using bootstrap methods. The econometric model follows the framework of threshold regression with panel data, extended to include dynamics and potential endogeneity.

$$Growth_{it} = \alpha_i + \rho Growth_{i,t-1} + \beta_1 Inflation \cdot I(Inflation_{it} \leq \gamma) + \beta_2 Inflation \cdot I(Inflation_{it} \geq \gamma) + \theta X_{it} + \varepsilon_{it}$$

$Growth_{it}$: Represents the dependent variable of economic growth, measured through GDP per capita growth.

$Growth_{i,t-1}$: Lagged growth for capturing the persistence.

$Inflation_{it}$: Inflation rate for capturing the threshold variable, measured through consumer prices, annual.

γ : Endogenously estimated inflation threshold.

I : Indicator function defining regimes.

X_{it} : Vector of control variables.

α_i : Country fixed effects.

ε_{it} : Error term.

3.1 The data and descriptive analysis

The data for all variables used in the econometric models has been provided from the World Development Indicators of World Bank. Table 1 presents the descriptive statistics of them where the sample countries exhibit an average economic growth (GDP per capita growth) of around 4%, but with substantial variability, as reflected in a relatively high standard deviation and a wide range between -14.97% and 13.32%, suggesting periods of both economic contraction and expansion (see also Graph 1). Inflation shows a mean of approximately 4.7%, but with very high dispersion (standard deviation of 10.54) and extreme maximum values reaching 95%, indicating episodes of high inflation or macroeconomic instability in some countries or years. A similar pattern is observed for the GDP deflator, revealing the presence of inflation volatility.

Table 1. Descriptive Statistics

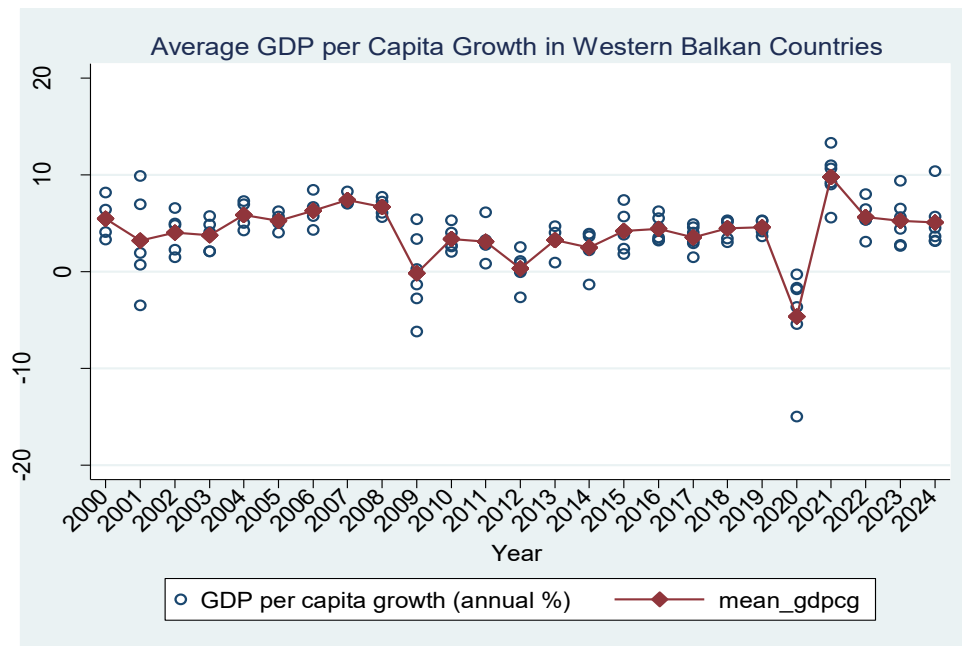
Variable	Mean	Std. Dev.	Min	Max	Observations
GDP per capita growth (annual, %)	4.0027	3.4845	-14.970	13.3242	140
Inflation, consumer prices (annual %)	4.7191	10.5445	-2.4103	95.0052	135
GDP deflator (annual %)	5.8284	10.4603	-2.8331	84.1527	141
Gross fixed capital formation (% of GDP)	24.6426	5.6806	11.6100	39.0191	142
General government final consumption expenditure (% of GDP)	17.8524	4.6901	9.7316	29.9406	142
Trade openness (% of GDP)	91.5452	21.3119	21.1090	166.1474	142
Population growth rate (annual %)	-0.6005	0.8857	-5.3913	0.9671	150

Source: Author's calculations

Investment, measured by gross fixed capital formation, averages about 24.6% of GDP, indicating relatively strong investment activity across countries, while government consumption remains stable at around 17.9% of GDP with lower variability. Trade openness is relatively high, with an average of 91.5% of GDP, reflecting the openness of these economies, although with considerable variation across countries. Population growth is negative on average (-0.6%), suggesting demographic decline in the sample, which may have implications for long-term growth. Observing all the data reveals significant heterogeneity and volatility, particularly in inflation, supporting the use of nonlinear modeling approaches such as threshold analysis.

Graphs 2 and 3 indicate the inflation dynamics in Western Balkan countries as average and individual country inflation trend, respectively. They are characterized by an early transition period shock, followed by a stabilization. In the early 2000s, inflation was highly volatile, with extreme spikes, particularly in Serbia and, to a lesser extent, Bosnia and Herzegovina, reflecting post-transition macroeconomic instability and price liberalization effects. This is clearly observed by the wide dispersion of country observations and the high regional mean. From roughly 2003 to 2019, inflation converged to low and stable levels across all countries, generally fluctuating around 5%, suggesting improved monetary policy credibility and macroeconomic stabilization.

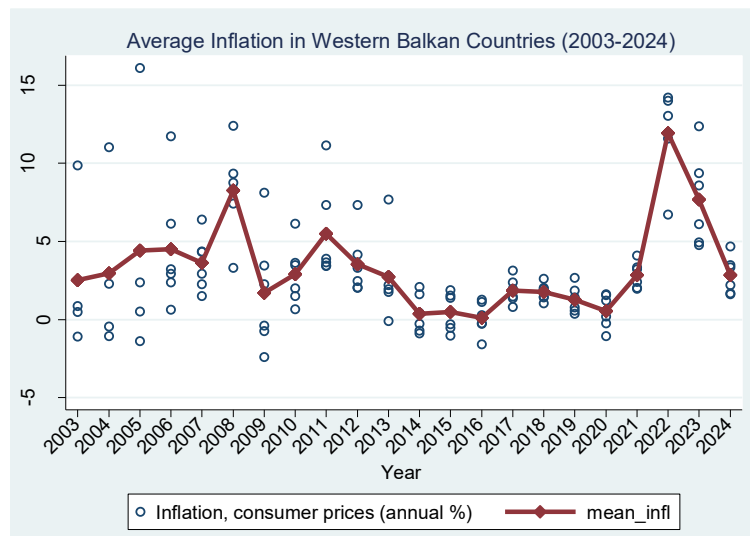
Graph 1. Average GDP per capita Growth of Western Balkan Countries



Source: Own research

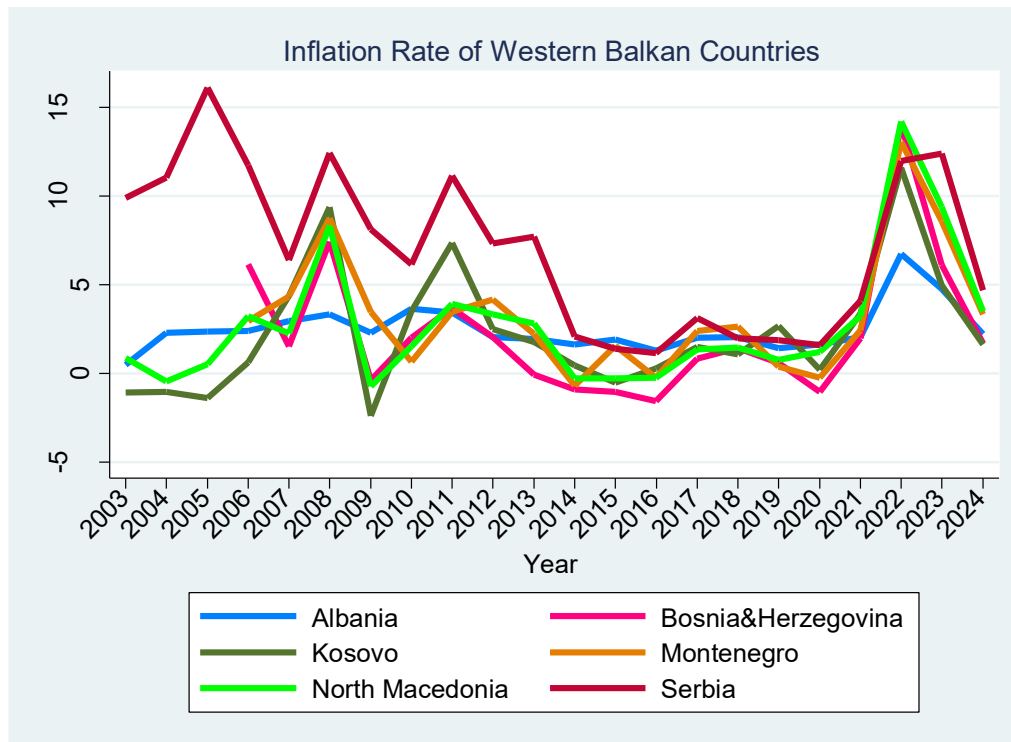
The clustering of points and overlapping country lines during this period confirms strong regional convergence (Graph 3). However, beginning in 2020 and intensifying in 2021–2022, inflation increased sharply across all countries, with the regional mean rising noticeably, consistent with global supply shocks, energy prices rise, and post-pandemic demand recovery. Despite some easing in 2023–2024, inflation remains above pre-pandemic levels, indicating persistent pressures. The trend reveals a clear pattern of recent synchronized inflationary shock across the Western Balkans.

Graph 2. Average Inflation of Western Balkan Countries



Source: Own research

Graph 3. Trend of Inflation Rate in Western Balkan Countries



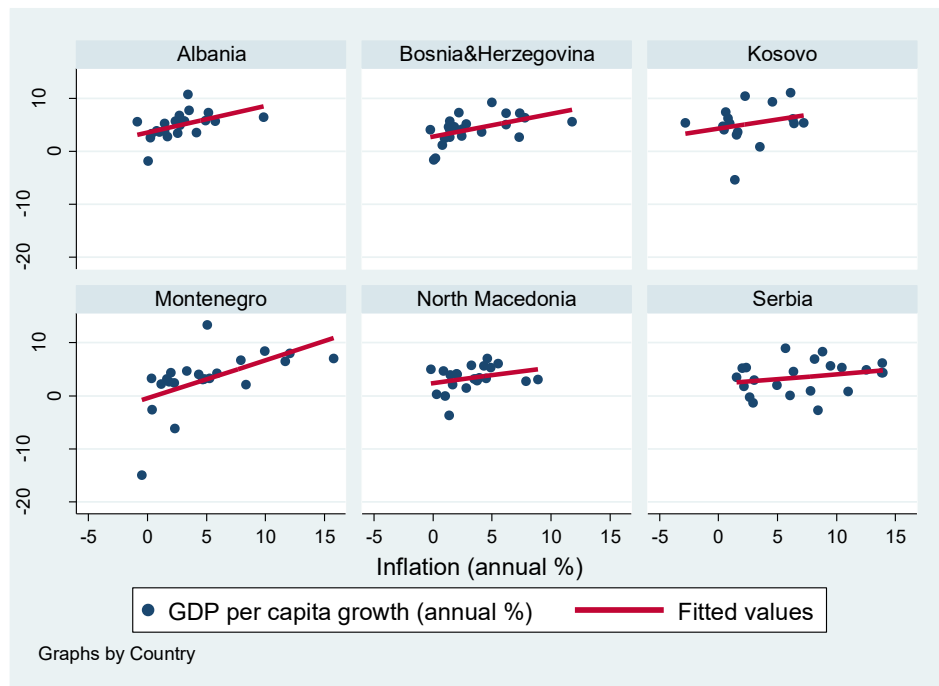
Source: Own research

4. Empirical Findings

The data analysis starts with the OLS fitted lines for country-specific panels (Figure 4) and the pooled scatterplot for the panel data (Figure 5) which reveal a positive but weak and heterogenous relationship between inflation and economic growth across Western Balkan (WB) countries. At the individual country level, all fitted lines show a positive slope, suggesting that higher inflation is associated with higher economic growth, consistent with a low-to-moderate inflation growth-enhancing effect. However, the strength of this relationship varies. Montenegro shows the steepest slope, indicating a relatively stronger positive association, although it is also influenced by notable outliers (including episodes of negative growth). Albania and Bosnia and Herzegovina display a moderate positive relationship, with relatively tighter clustering of observations, implying more stable macroeconomic dynamics. Kosovo and North Macedonia also show positive slopes, but the dispersion of points suggests weaker explanatory power of inflation for growth. In Serbia, the relationship is the weakest, with a nearly flat slope and substantial variability, indicating that inflation plays a less decisive role in explaining growth fluctuations.

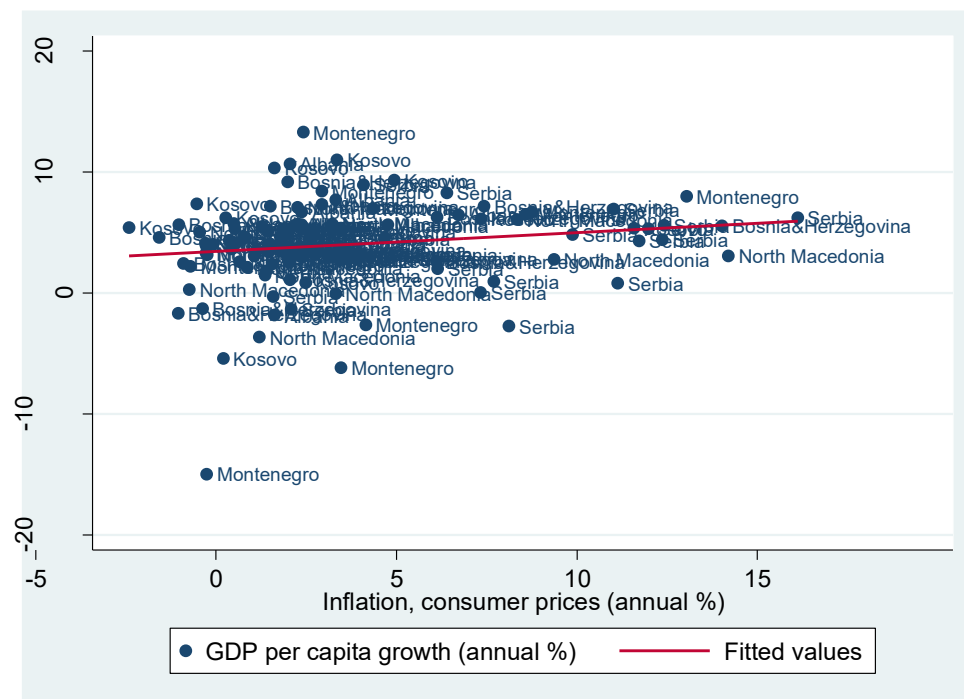
In the pooled graph (Figure 5), the overall fitted line remains positively sloped but relatively flat, confirming that, on average, inflation is positively correlated with economic growth across the region, though the effect is modest. The high concentration of observations at low inflation levels (0–5%) combined with varying growth outcomes suggests that inflation alone is not a strong predictor of growth, and that other structural and macroeconomic factors have influence. Additionally, the presence of outliers, particularly at higher inflation rates indicates episodic shocks rather than a stable linear relationship.

Graph 4. The relationship of economic growth and inflation in WB countries



Source: Own research

Graph 5. Pooled OLS scatterplot of the relationship economic growth and inflation for WB countries



Source: Own research

The regression results of fixed and random effects models are displayed in Table 2. The results across all four models provide robust evidence supporting the conditional convergence hypothesis, as the coefficient on initial income (GDPCGt-1) is consistently negative and statistically significant, indicating that poorer countries in the sample tend to grow faster.

Inflation shows a positive and significant effect on economic growth in all specifications, suggesting that moderate inflation may stimulate economic activity. However, when the nonlinear term is introduced, the coefficient on inflation squared (INFLSQ) is negative and statistically significant (particularly in the random-effects model), confirming an inverted U-shaped relationship between inflation and growth, implying that while low inflation supports growth, higher inflation becomes harmful beyond a certain threshold. The estimated turning point of 14.2% indicates that inflation has positive impact on growth to a certain threshold, beyond which its effect becomes negative. This result highlights the importance of distinguishing between inflation regimes and suggests that maintaining inflation within a moderate range is crucial for sustaining economic performance in the region.

Among the control variables, population growth yields a strong and consistently negative impact, while gross fixed capital formation, government consumption, and trade openness remain statistically insignificant across models, suggesting their limited short-run explanatory power in this context. The findings are stable across fixed- and random-effects models and emphasize the importance of maintaining moderate inflation levels for sustainable growth in the Western Balkans. The Hausman test suggested that random effects is the appropriate model for this sample of data.

Table 2. Panel Regression Results

Variables	FE (Linear)	RE (Linear)	FE (Quadratic)	RE (Quadratic)
GDPCGt-1	-0.329** (0.090)	-0.317*** (0.089)	-0.295** (0.086)	-0.285*** (0.085)
INFL	0.554** (0.168)	0.486*** (0.163)	0.926** (0.290)	0.850*** (0.292)
INFLSQ	—	—	-0.031* (0.012)	-0.030** (0.013)
GFCF	0.092 (0.120)	0.150 (0.098)	0.077 (0.108)	0.138 (0.091)
GOVCONS	-0.291 (0.209)	-0.160 (0.119)	-0.298 (0.201)	-0.156 (0.114)
TRADE	0.004 (0.053)	0.005 (0.020)	0.008 (0.051)	0.002 (0.021)
POP	-1.099** (0.415)	-1.196*** (0.150)	-1.118** (0.374)	-1.182*** (0.139)
Constant	5.447 (8.029)	1.034 (4.709)	5.542 (7.794)	0.787 (4.322)
R ² (within)	0.328	0.320	0.347	0.338
Observations	125	125	125	125

Notes: Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Source: Own research

Table 3 presents the regression results of dynamic panel threshold model. The results indicate a clear threshold effect of inflation on economic growth. Below the estimated threshold of 8.7%, inflation has a positive and significant impact on economic growth, while above this level, the effect turns negative, supporting the existence of a nonlinear and regime dependent relationship. The lagged dependent variable remains negative and significant in both regimes, supporting conditional convergence, with a slightly stronger convergence effect in the high-inflation regime. Among the control variables, population growth exerts a consistently strong and negative impact across both regimes, while gross fixed capital formation, government consumption, and trade openness remain statistically insignificant, implying limited short-run effects.

Table 3. Regression Results of Dynamic Panel Threshold

Variables	Inflation $\leq \gamma$	Inflation $> \gamma$
GDPGt-1	-0.285*** (0.082)	-0.310*** (0.090)
INFL	0.742** (0.285)	-0.215* (0.120)
GFCF	0.120 (0.095)	0.085 (0.110)
GOVCONS	-0.180 (0.130)	-0.240 (0.150)
TRADE	0.015 (0.020)	-0.005 (0.025)
POP	-1.050*** (0.180)	-1.210*** (0.200)
Threshold (γ)	8.7**	
Observations	125	125
Number of countries	6	6
Bootstrap lin.test (p-value)	0.000	0.000

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10

Source: Own research

5. Conclusions

This research article aimed to estimate the relationship between inflation and economic growth for Western Balkan countries performing several panel regression models. The empirical results confirm that the relationship between inflation and economic growth is nonlinear and depends on the regime. While inflation exerts a positive and significant effect on growth at low and moderate levels, this effect reverses once inflation exceeds the estimated threshold (around 8.7%), decreasing the economic performance. The findings also support conditional convergence, as less developed economies grow faster, and highlight the consistently negative impact of population growth as a structural constraint, whereas the other control variables do not exert any significant influence for this sample of data. Thus, the empirical evidence suggests that maintaining moderate and stable inflation levels is essential for sustaining economic growth, while avoiding high inflation remains a key policy priority for the region.

References

- Akinsola, F. A., and Odhiambo, N.M. 2017. “Inflation and Economic Growth: A Review of The International Literature”. *Comparative Economic Research*. Central and Eastern Europe 20 (3): 41-56. <https://doi.org/10.1515/cer-2017-0019>.
- Azam, M. and Khan, S. (2022). Threshold Effects in the Relationship between Inflation and Economic Growth: Further Empirical Evidence from the Developed and Developing World. *International Journal of Finance & Economics*, Volume 27. Issue 4, pp. 4224-4243. <https://doi.org/10.1002/ijfe.2368>
- Barro, R. (1995). “Inflation and Economic Growth”. NBER. Working Paper 5326. DOI 10.3386/w5326.
- Benhabib J. & Spiegel M.M. (2009). “Moderate inflation and the deflation–depression link”. *Journal of Money, Credit and Banking* 41(4), 787–798.
- Bick, A. (2010). “Threshold effects of inflation on economic growth in developing countries”. *Economics Letters*. Volume 108, Issue 2. Pages 126-129. ISSN 0165-1765. <https://doi.org/10.1016/j.econlet.2010.04.040>.
- Cameron N., Hum D. and Simpson W. (1996). “Stylized facts and stylized illusions: Inflation and productivity revisited”. *Canadian Journal of Economics*. Vol.29(1). Pg 152–162.

- Fischer, S. (1993). “The role of macroeconomic factors in growth”. *Journal of Monetary Economics*. Volume 32, Issue 3. Pages 485-512. [https://doi.org/10.1016/0304-3932\(93\)90027](https://doi.org/10.1016/0304-3932(93)90027)
- Gillman, M. and Harris, M.N. (2010). “The Effect of Inflation on Growth - Evidence from a Panel of Transition Countries.” *Economics of Transition* 18: 697-714.
- He, Q. (2023). “The inverted-U effect of inflation on growth: Cross-country evidence”. *Economic Modelling*, 128, Article 106501.
- Khan, M., and Hanif, W. (2020). Institutional quality and the relationship between inflation and economic growth. *Empirical Economics*. 58(2), 627–649.
- Khan, M.S. and Senhadji, A.S. (2001). “Threshold effects in the relationship between inflation and growth”. *IMF Staff Papers*, 48(1), pp. 1–21.
- Kremer, S., Bick, A., and Nautz, D. (2013). “Inflation and growth: new evidence from a dynamic panel threshold analysis”. *Empirical Economics*. 44(2), 861–878.
- Lopez-Villavicencio, A., and Mignon, V. (2011). “On the impact of inflation on output growth: Does the level of inflation matter?”. *Journal of Macroeconomics*. 33(3), 455–464.
- Owusu, B. & Bökemeier, B. (2026). “The economic growth and inflation nexus: New empirical assessment for emerging market economies”. *International Review of Economics & Finance*. Volume 107. 105078. <https://doi.org/10.1016/j.iref.2026.105078>.
- Mallik, G. and Chowdhury, A. (2001). “Inflation and Economic Growth: Evidence from Four South Asian Countries”. *Asian Pacific Development Journal*, Vol. 8. No. 1. Pp. 123-135.
- Ndoricimpa, A., (2017). Threshold effects of inflation on economic growth in Africa: Evidence from a dynamic panel threshold regression model. *African Development Review*, 29(3), pp.289-303.
- Sarel M. (1996). “Nonlinear effects of inflation on economic growth”. ‘*Staff Papers*’, Vol. 43(1), 199–215.
- Vinayagathan, Th. (2013). “Inflation and economic growth: A dynamic panel threshold analysis for Asian economies”. *Journal of Asian Economics*. Volume 26. Pages 31-41. ISSN 1049-0078. <https://doi.org/10.1016/j.asieco.2013.04.001>
- Yilmazkuday, H., (2013). Threshold effects of inflation on growth in the world. *Economic Letters*, 118(1), pp.217-220.

DIGITAL BANKING AND FINTECH GLOBAL TRENDS AND PERSPECTIVES FOR ALBANIA

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Abstract

The rapid evolution of digital finance has fundamentally transformed global financial systems, reshaping how individuals and institutions access, manage, and interact with financial services. Despite these advancements, Albania continues to experience relatively slow adoption of digital banking and FinTech solutions. This paper examines the structural, technological, and regulatory barriers hindering digital financial transformation in Albania, while identifying key opportunities for development.

Using a mixed-methods approach that combines secondary research, consumer surveys, and expert interviews, the study evaluates the current state of digital banking, the readiness of financial institutions, and the effectiveness of the regulatory framework. The findings indicate that, although Albania demonstrates significant potential—driven by high smartphone penetration, ongoing EU integration, and strong diaspora engagement—critical challenges persist, including low financial literacy, limited trust in digital systems, and an evolving regulatory environment.

The paper concludes with targeted policy and market recommendations aimed at fostering an inclusive, secure, and innovation-driven financial ecosystem in Albania.

Keywords: FinTech, Digital Banking, EU Financial Standards, Ecosystem, Regulatory Barriers

Introduction

Digital transformation in the financial sector represents one of the most profound structural shifts in modern economies. Financial technologies (FinTech) have introduced innovative mechanisms for payments, lending, and financial intermediation, significantly reducing transaction costs and expanding access to financial services (Tombini et al., 2023).

Despite these global developments, Albania remains characterized by a relatively low level of digital banking adoption. This gap is particularly critical in the context of European integration, where alignment with EU financial standards and digital infrastructure is essential for long-term economic convergence.

This paper contributes to the existing literature by providing a comprehensive analysis of Albania's position within the global digital finance ecosystem and by proposing evidence-based recommendations for accelerating digital transformation. The research is conducted within the framework of the READ project, which aims to bridge academic research with policy and market realities in Albania's financial sector.

Financial Innovation and Global Trends

Financial innovation and global trends indicate that the financial sector is undergoing a deep structural transformation driven by technological progress, data utilization, and evolving consumer behavior. Digital platforms are fundamentally redefining how financial services are produced and delivered, shifting from institution-centered models toward user-centered, data-driven ecosystems (OECD, 2023).

At a global level, the convergence of finance and technology has accelerated competition, increased operational efficiency, and expanded access to financial services, particularly in emerging markets (Tombini et al., 2023). Consequently, countries that adapt quickly to digital financial innovation are more likely to achieve sustainable economic growth and enhanced financial inclusion.

Financial innovation can be defined as the development and implementation of new financial products, services, technologies, and institutional arrangements that improve efficiency and accessibility within financial systems. In recent years, such innovation has been closely associated with advancements in artificial intelligence, big data analytics, and mobile technologies (OECD, 2023).

Unlike traditional financial development, digital financial innovation is characterized by its speed, scalability, and disruptive capacity, enabling the emergence of entirely new financial ecosystems where services are delivered faster, at lower cost, and with greater inclusivity. Empirical evidence suggests that digital payments alone contribute significantly to economic growth, productivity, and financial inclusion (Tombini et al., 2023).

The evolution of digital financial innovation can be conceptualized in three phases:

- First Wave (2007–2009): FinTech Disruption – driven by startups offering alternative financial services in response to declining trust in traditional banking systems (Lauridsen, 2025).
- Second Wave (2010–2019): Collaboration and Open Banking – characterized by increased cooperation between banks and FinTech firms, supported by regulatory frameworks such as PSD2 (EBA, 2021).
- Third Wave (2020–Present): Platform Economy and Decentralization – marked by the rise of AI, blockchain, and decentralized finance, alongside increased systemic and cybersecurity risks (Baldassarre et al., 2025).

A defining feature of contemporary financial innovation is the central role of data. Data has become a strategic asset, often referred to as the “new oil” of the digital economy. In financial systems, data drives decision-making, risk assessment, and customer engagement processes.

Its key economic characteristics include:

- Non-rivalry
- Economies of scale
- Increasing returns
- Network effects

These features create a self-reinforcing mechanism known as the Data–Network–Activity loop, whereby increased usage generates more data, enhances service quality, and attracts additional users (OECD, 2023).

Impact on Financial Systems

Financial innovation has significantly transformed the structure and functioning of financial systems globally. Its key impacts include:

- Enhanced financial inclusion, enabling access to financial services for previously unbanked populations (Suri et al., 2021)

- Reduction in transaction costs, particularly through digital payment systems (Duarte et al., 2022)
- Improved efficiency, driven by automation and artificial intelligence
- Increased competition, as new entrants challenge traditional financial institutions

However, these benefits are accompanied by emerging risks, including cybersecurity vulnerabilities, data privacy concerns, market concentration in large digital platforms, and the risk of digital over-indebtedness (Ansar et al., 2024).

Therefore, the transformation of financial systems requires a balanced and well-coordinated approach that integrates technological innovation with robust regulatory frameworks.

Perspective for Albania

The Albanian financial system remains bank-centric, with the banking sector representing approximately 90% of total financial system assets, highlighting its dominant role in financial intermediation (Banka e Shqipërisë, 2024). According to the latest supervisory data, the sector includes 11 active banks (with additional entrants expected), total assets of approximately 2,091 billion ALL, and a net profit of 37.4 billion ALL in 2024, reflecting a 17.1% annual increase. The sector demonstrates solid financial stability indicators, including a capital adequacy ratio of 19.8% and a relatively low non-performing loan (NPL) ratio of 4.17%, indicating improved asset quality and resilience compared to previous years (Banka e Shqipërisë, 2024).

Figure 2. Trend of non-performing loans (NPL) in Albania (%). Source: Banka e Shqipërisë (2024), author's elaboration

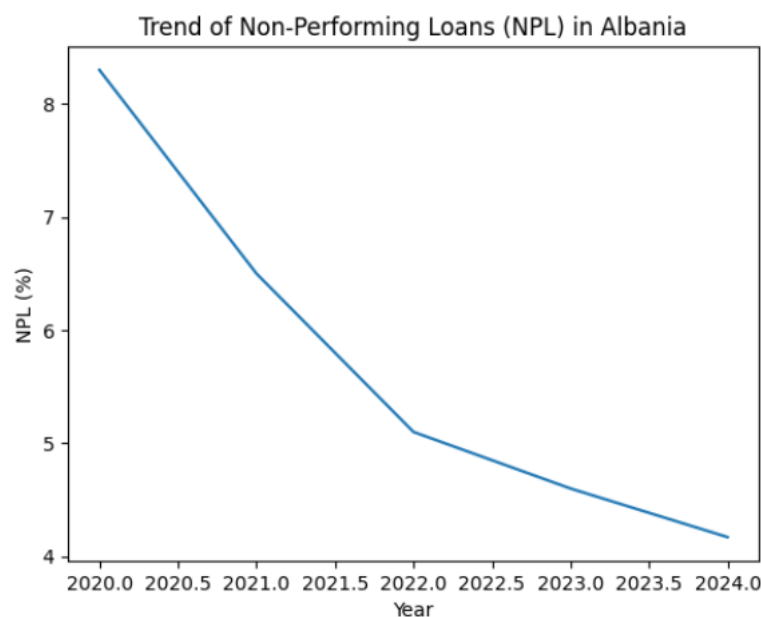


Figure 2 shows a consistent decline in the NPL ratio over the period 2020–2024, indicating improved asset quality and stronger risk management within the banking sector. This positive trend enhances financial stability and creates a more favorable environment for digital financial innovation.

However, despite these positive indicators, the financial system remains structurally unbalanced, with the non-banking sector still underdeveloped. It includes 37 non-bank financial institutions, a loan portfolio of approximately 58.7 billion ALL, and a limited number

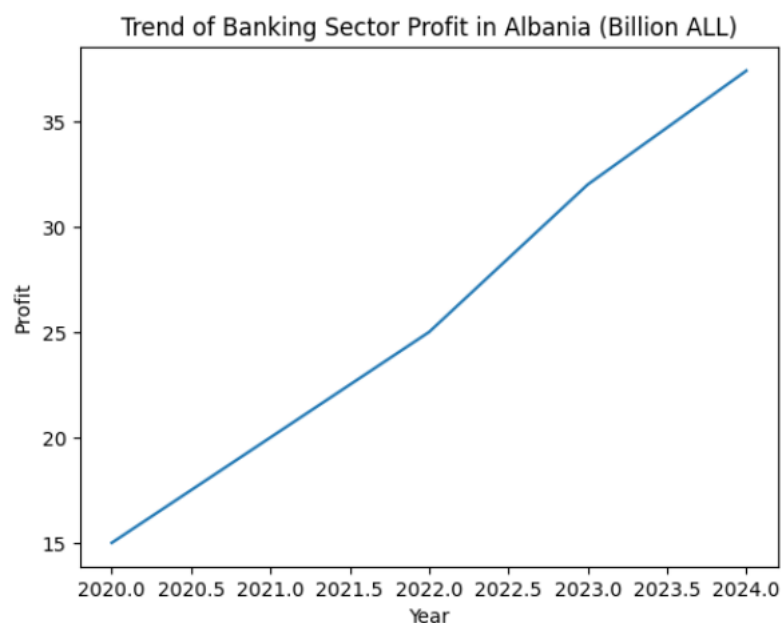
of savings and credit associations. This highlights the need for diversification and increased competition in financial services.

Table 1. Key Indicators of the Albanian Financial System (2024)

Indicator	Value	Interpretation
Number of Banks	11 (+2 expected)	Moderately concentrated banking market
Total Assets	2,091 billion ALL	Banking sector dominates the financial system (~90% of GDP)
Net Profit	37.4 billion ALL	Strong profitability (+17.1% annual growth)
Capital Adequacy Ratio	19.8%	High resilience and compliance with regulatory standards
Non-Performing Loans (NPL)	4.17%	Improved asset quality and reduced credit risk
Number of Bank Branches	~400	Extensive but uneven physical infrastructure
Non-Bank Financial Institutions	37	Limited diversification of financial services
Loan Portfolio (Non-bank sector)	58.7 billion ALL	Small share compared to banking sector
Savings & Credit Associations	17	Limited role in financial inclusion
Currency Exchange Offices	640	High cash dependency in the economy

Source: Banka e Shqipërisë (2024); Author's elaboration based on supervisory data.

Figure 3. Trend of Banking Sector Profit in Albania (2020–2024)



As shown in Figure 3, the profitability of the Albanian banking sector has increased steadily over recent years. This growth reflects improved efficiency and financial performance, suggesting that banks have sufficient capacity to invest in digital transformation and technological innovation.

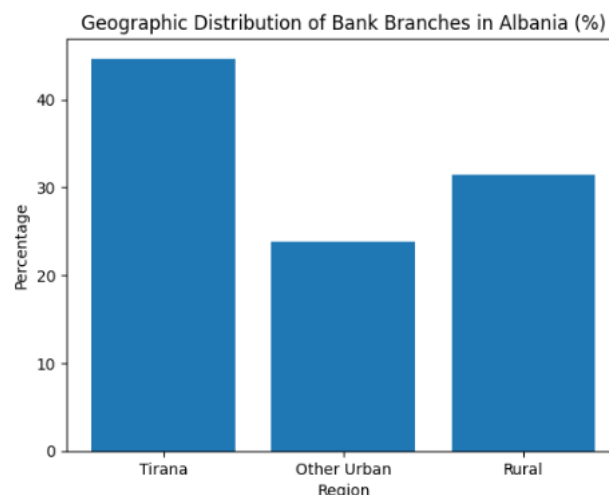
A critical structural challenge in Albania is the uneven geographical distribution of financial services. Approximately **44.7% of bank branches are concentrated in Tirana**, while **68.6% are located in the five largest cities**, leaving rural areas underserved (Banka e Shqipërisë, 2024). This concentration creates a significant **urban–rural divide in financial access**, limiting financial inclusion for populations outside major urban centers.

Table 2. Geographic Distribution of Bank Branches in Albania

Indicator	Percentage	Implication
Branches in Tirana	44.7%	Strong centralization in the capital
Branches in Top 5 Cities	68.6%	Urban concentration of financial services
Rural Coverage	Low	Limited access → need for digital banking

Source: Banka e Shqipërisë (2024); Author's calculations.

Figure 1. Geographic distribution of bank branches in Albania (%). Source: Banka e Shqipërisë (2024), author's elaboration.



As a result, digital banking emerges not only as an innovation but as a necessity to bridge this gap. In this context, mobile banking and digital platforms represent the most effective channel for expanding financial services to underserved regions, reducing dependency on physical infrastructure.

The adoption of digital banking services in Albania has improved but remains limited in depth and sophistication. Current data show that:

- **9 out of 11 banks offer internet banking services**
- **8 out of 11 banks provide mobile banking**
- Advanced services such as **virtual POS and phone banking remain limited (only 2 banks)**

This indicates that while digital infrastructure exists, its utilization and diversification remain insufficient. The gap between availability and effective usage reflects both supply-side and demand-side constraints, including user trust, digital literacy, and service quality. One of the

most significant developments in Albania’s financial system is its integration into European payment frameworks.

Table 3. Digital Banking Services Offered by Albanian Banks

Service Type	Number of Banks Offering Service (out of 11)	Level of Development
Internet Banking	9	High availability
Mobile Banking	8	Increasing adoption
ATM/POS Services	11	Fully developed
Virtual POS	2	Very limited
Phone Banking	2	Minimal usage
Electronic Cards	9+	Widely used

Source: Banka e Shqipërisë (2024); Supervisory Report.

Albania has officially joined the **Single Euro Payments Area (SEPA)**, marking a critical step toward financial integration with the European Union. SEPA enables:

- Lower transaction costs for euro payments
- Faster cross-border transactions
- Standardization of payment systems

Furthermore, Albania is actively participating in the **TIPS Clone initiative for the Western Balkans**, expected to become operational in **July 2026**. This system will enable:

Instant payments within ≤10 seconds

24/7/365 availability

Multi-currency transactions (ALL and EUR)

This development positions Albania as an active participant in regional financial infrastructure, rather than merely a beneficiary of global innovation (Jennings, 2025).

Albania presents several structural advantages that support digital financial transformation:

- **High smartphone penetration**, enabling widespread access to mobile financial services
- **EU accession process**, which drives regulatory alignment and institutional reform
- **Strong diaspora presence**, creating opportunities for reducing remittance costs through digital channels
- **Emerging startup ecosystem**, particularly in technology and financial services

These factors create the conditions for “**leapfrogging**”, allowing Albania to bypass traditional stages of financial development and adopt advanced digital solutions directly (Tombini et al., 2023).

Figure 4 illustrates that Albania lags behind regional peers in digital banking adoption. This gap highlights both a challenge and an opportunity, suggesting that Albania has significant potential for growth through targeted digitalization strategies and regulatory reforms.

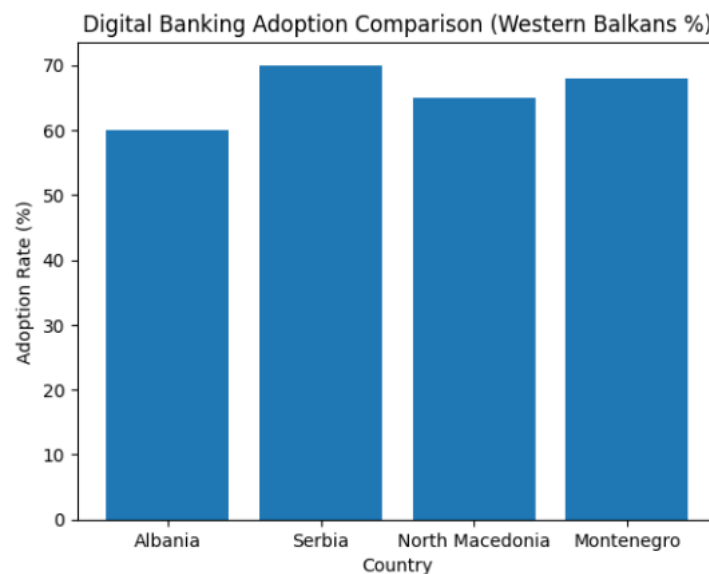
Despite these opportunities, several critical challenges remain:

- Low digital financial literacy, particularly among rural populations and vulnerable groups (OECD, 2023)
- High level of informality, with a strong reliance on cash transactions

- Limited trust in digital financial services, due to concerns about security and transparency
- Incomplete regulatory framework for FinTech, including gaps in licensing, data protection, and cybersecurity

These challenges limit both the supply and demand for digital financial services and slow the pace of transformation.

Figure 4. Digital banking adoption in selected Western Balkan countries (%). Source: Author’s elaboration based on regional estimates.



Strategic Implications

The analysis suggests that Albania is at a **critical transition point**. While the financial system is stable and increasingly integrated with European structures, its digital transformation remains incomplete.

To fully capitalize on existing opportunities, Albania must adopt a **coordinated strategy** that includes:

- Investment in digital financial education
- Strengthening of regulatory frameworks
- Promotion of innovation through sandboxes
- Expansion of digital infrastructure in rural areas

Ultimately, the successful transformation of Albania’s financial system will depend on its ability to balance **innovation, regulation, and inclusion**, ensuring that digital finance contributes to sustainable economic development.

Conclusion

Digital finance represents a transformative opportunity for Albania to modernize its financial sector and enhance economic inclusion. While significant structural and institutional challenges persist, the country possesses strong foundational advantages, including increasing digital connectivity, ongoing EU integration, and an emerging innovation ecosystem.

The analysis of the Albanian financial system reveals a paradox: on the one hand, the banking sector is stable, profitable, and well-capitalized, with improving indicators such as declining non-performing loans and increasing profitability; on the other hand, digital adoption remains

relatively limited, and financial services are still highly concentrated in urban areas. This imbalance highlights the critical role that digital banking can play in expanding access to financial services, particularly for rural populations and underserved groups.

Furthermore, recent developments such as Albania's integration into SEPA and its participation in the TIPS Clone initiative demonstrate that the country is not merely adapting to global financial trends but actively positioning itself within the European digital payments ecosystem. These initiatives provide a concrete pathway for accelerating financial digitalization and reducing transaction costs, especially in cross-border payments and remittances, which are highly relevant given Albania's strong diaspora connections.

The findings of this study confirm that financial innovation is a continuous and systemic process, where data functions as the central asset and regulation acts as a key enabler rather than a constraint. However, the Albanian case also illustrates that technological advancement alone is insufficient. Financial inclusion cannot be achieved solely through access to digital tools; it requires a comprehensive approach that integrates financial education, consumer protection, trust-building mechanisms, and institutional capacity.

In this context, the main challenge for Albania is not the absence of technology, but the effective integration of technology into a coherent financial ecosystem. Addressing issues such as low digital financial literacy, high reliance on cash transactions, and limited trust in digital systems is essential for unlocking the full potential of digital finance.

Looking forward, Albania has a unique opportunity to “leapfrog” traditional stages of financial development by adopting advanced digital solutions directly. To achieve this, policymakers and financial institutions must prioritize investments in digital infrastructure, promote regulatory innovation (such as sandbox frameworks), and ensure inclusive policies that target vulnerable groups, including women and rural populations.

With strategic policy interventions, targeted investments, and coordinated stakeholder engagement, Albania has the potential to position itself as a competitive, inclusive, and resilient digital financial ecosystem in the Western Balkans and beyond.

References

- Ansar, S., et al. (2024). Digital lending and financial vulnerability in emerging markets. *Journal of Development Finance*.
- Acemoglu, D. (2025). The simple macroeconomics of AI.
- Arner, D. W., Barberis, J., & Buckley, R. P. (2016). The evolution of FinTech: A new post-crisis paradigm. *Georgetown Journal of International Law*.
- Baldassarre, G., et al. (2025). Cyber risk and financial stability in digital banking. *Financial Stability Review*.
- Banka e Shqipërisë. (2024a). *Raporti vjetor i mbikëqyrjes*. Tiranë: Banka e Shqipërisë.
- Banka e Shqipërisë. (2024b). *Raporti i stabilitetit financiar*. Tiranë: Banka e Shqipërisë.
- Banka e Shqipërisë. (2023). *Raporti vjetor*. Tiranë: Banka e Shqipërisë.
- Banka e Shqipërisë. (2024c). *Statistika të sistemit bankar*. Tiranë: Banka e Shqipërisë.
- Chen, R., et al. (2023). Gender gaps in FinTech adoption. *World Bank Working Paper*.
- Duarte, F., Frost, J., Gambacorta, L., Koo Wilkens, P., & Shin, H. S. (2022). The rise of instant payments: The case of Pix. *BIS Bulletin*, No. 52.
- European Banking Authority (EBA). (2021). *Regulatory sandbox frameworks in the EU*.
- European Central Bank (ECB). (2022). *The Single Euro Payments Area (SEPA): An integrated retail payments market*.
- Jennings, M. (2025). TIPS Clone and instant payments in the Western Balkans. *Banca d'Italia*.
- Lauridsen, J. (2025). Digital finance evolution and platform economics. *Financial Innovation Journal*.
- OECD. (2023). *Financial literacy and digital finance report*. Paris: OECD Publishing.
- Suri, T., Jack, W., & Stoker, T. M. (2021). Mobile money and economic resilience: Evidence from M-Pesa. *American Economic Review*, 111(1), 1–46.
- Tombini, A., et al. (2023). Digital payments and economic growth. *BIS Working Paper*.

- World Bank. (2022). *Global Findex Database 2021: Financial inclusion, digital payments, and resilience*. Washington, DC: World Bank.
- Zetzsche, D. A., Buckley, R. P., Arner, D. W., & Barberis, J. (2020). Open banking and the regulation of APIs. *Journal of Financial Regulation*, 6(1), 1–27.

OCCUPATIONAL HEALTH AND SAFETY IN THE EU AND ALBANIA: LEGAL HARMONIZATION, IMPLEMENTATION, AND INTEGRATION PROSPECTS

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Abstract

*Occupational Health and Safety (OHS) constitutes one of the fundamental pillars of employee protection and sustainable economic development within the European Union. Primarily through Directive 89/391/EEC, the European Union has established a legal framework that sets out employers' obligations regarding risk assessment, preventive measures, employee safety, health surveillance, and the continuous improvement of working conditions. These standards aim to reduce workplace accidents and health issues arising from the work environment and conditions, as well as to promote a culture of wellbeing in the workplace. As a country aspiring to join the European Union, Albania has undertaken legal reforms to align its national legislation with the *acquis Communautaire* in the field of OHS. The Labor Code and occupational health and safety legislation incorporate key principles such as employer responsibility, the obligation to conduct risk assessments, and the provision of occupational health services. Still, challenges remain in terms of the effective implementation of legislation, the institutional capacity for inspection, and the awareness of private entities, particularly small and medium-sized enterprises, as well as in addressing emerging risks, including those of a psychosocial nature. This paper presents a comparative analysis of the regulatory framework of the European Union and the current situation in Albania, identifying the level of normative harmonization, existing gaps, and practical challenges in implementation. The comparison will be conducted through specific examples drawn from various companies, while preserving anonymity. In conclusion, recommendations are put forward to strengthen institutional mechanisms and to accelerate the process of alignment with the European Union standards in the field of occupational health and safety.*

Keywords: Occupational Health and Safety, European Union, Legal Harmonization, Albania, Implementation

1. Introduction

Occupational Health and Safety (OHS) represents a key component of modern labor systems, which aims to ensure the protection of the physical and mental wellbeing of the workers, while at the same time, supporting sustainable economic development. In complex and dynamic work environments, effective OHS policies are relatively important, not only for preventing workplace accidents and occupational diseases, but also for fostering productivity, minimizing

economic losses, and promoting a culture of safety and responsibility within organizations⁶³. While the classical concept of OHS has been primarily focused on the first two occurrences, the development of the work management system has brought attention even in features that are not quite directly linked to physical health. Within the European Union, OHS has been developed into a comprehensive regulatory field, supported by a strong legal and institutional framework. Central to this framework is Directive 89/391/EEC, which establishes general principles that concern the prevention of occupational risks, the protection of safety and health, and the responsibilities of both employers and employees. This Directive has served as the foundation for a wide range of specific directives, addressing various sectors and risk categories, thereby creating a harmonized approach across European Union countries⁶⁴.

As a country which aspires to join the European Union, Albania has undertaken significant legal and institutional reforms to approximate its national legislation with the *acquis Communautaire* in the field of OHS. These efforts mirror not only external obligations linked to the European Union integration process, but also an increasing recognition of the importance of safe and healthy working conditions for socio-economic development. *While a rudimentary OHS framework existed prior to these reforms, largely inherited from the socialist period and characterized by a fragmented, prescriptive approach focused on physical safety without a comprehensive preventive philosophy, the current legislative overhaul represents a fundamental shift towards aligning with the EU's risk-based and participative model.* The Albanian legal framework, including the Labor Code of Albania and the relevant OHS legislation, incorporate key principles derived from the European Union legislation, such as employer responsibility for workplace safety, the obligation to conduct risk assessments, and the provision of occupational health services. Regardless of this progress, there are existing challenges in ensuring the effective implementation and enforcement of the OHS standards in practice. Various issues such as limited institutional capacity, insufficient labor inspection mechanisms, and low awareness among private entities, in particular small and medium-sized enterprises, remain unsolved. Moreover, emerging risks, including those of a psychosocial nature, present additional complexities that require adaptive regulatory and policy responses⁶⁵. In this context, this paper aims to conduct a comparative analysis of the OHS framework of the European Union, and the current situation of OHS in Albania. The analysis is going to assess the level of normative harmonization, identify existing legal and practical gaps, and examine the challenges associated with implementation. Through this analysis, the paper aims to contribute to a better understanding of the progress that Albania has so far up to March 2026 in aligning with the European Union standards, and to offer recommendations for strengthening its OHS system in line with the requirements of the European Union.

2. Methodology of the study

This paper follows a qualitative and comparative legal analysis. The analysis is mainly based on the analysis of legal sources, including secondary sources from the existing literature. The methodology consists of a systematic comparison of key principles, obligations, and enforcement mechanisms, to assess the level of normative harmonization and identify existing gaps. Also, the paper includes specific examples from Albanian companies, presented anonymously, to provide insight into the practical implementation of the OHS standards. Such

⁶³ Bohle, P. & Quinlan, M. (2000). *Managing Occupational Health and Safety: A Multidisciplinary Approach*. Macmillan.

⁶⁴ Schmeisser et al. (2013). *International Human Resource Management and International Labor Law: A Human Resource Management Accounting Approach*. De Gruyter.

⁶⁵ OECD. (2024). *Competitiveness and Private Sector Development Western Balkans Competitiveness Outlook 2024: Albania*. OECD Publishing.

a doctrinal and empirical approach enables a more comprehensive evaluation of both the formal legal framework and its application in practice, thus supporting the formulation of targeted recommendations for improving alignment with European Union standards.

3. European Union Occupational Health and Safety Framework

The European Union has established a comprehensive and coherent legal framework governing OHS, through the Directive 89/391/EEC. It grounds the general principles for the prevention of occupational risks and the protection of the safety and the health of the workers across all sectors of economic activity. The Directive introduces a preventative approach to workplace safety, shifting the focus from reactive measures to proactive risk management. The Directive establishes the principle that employers carry core responsibility for guaranteeing safe and healthy working conditions, and that they must take all necessary measures to prevent risks, combat hazards at source, and adapt work to the individual. On another note, it promotes the integration of safety considerations into all aspects of organizational management⁶⁶.

An important feature of the Directive is its role as a foundational tool, by addressing specific risks such as exposure to hazardous substances, sectors as construction, and categories of workers, thus establishing a detailed and multi-layered regulatory system within the European Union. Under the given OHS framework, employers are subject to a number of essential obligations designed to ensure a high level of protection for workers. Among the most significant ones is the requirement to conduct regular and systematic risk assessments. Employers must identify potential hazards, evaluate the associated risks, and implement appropriate preventive and protective measures. The Directive establishes a hierarchy of prevention, prioritizing the elimination of risks at source, followed by their minimization through organizational and technical measures, and the use of personal protective equipment.⁶⁷ This structured approach ensures that risk mitigation is both effective and proportionate.

The participation of the employees is also a key component of the system of the European Union. Employees have the right to be informed about risks, to receive adequate training, and to be consulted on matters relating to health and safety. In most cases, this involves the establishment of worker representatives or safety committees, which generate dialogue between employers and employees and contribute to a culture of shared responsibility⁶⁸. In addition, the framework emphasizes the importance of health surveillance and monitoring. Employers are required to ensure that workers have access to appropriate occupational health services, in particular in cases where exposure to specific risks may affect their health. This contributes to an early detection of occupational diseases and supports long-term worker wellbeing. Ultimately, the principle of continuous improvement covers all aspects of the OHS system of the European Union. Employers are expected to comply with minimum legal requirements and to regularly review and enhance their safety practices under new knowledge, technological developments, and evolving risks.

The main objective of the OHS framework of the European Union is to guarantee a high level of protection for workers, while supporting economic efficiency and social cohesion⁶⁹. By creating common standards, the European Union aims to minimize inequalities in the workplace and to prevent any potential arising problems in labor protections. A key goal of the framework is the minimization of workplace accidents and occupational diseases. Through the

⁶⁶ Kirch, W. (2008). *Promoting Health for Working Women*. Springer New York.

⁶⁷ Ullah, A. & Ahmed, S. (eds). (2025). *Nanotechnology in Food Packaging and Preservation: Principles and Practical Applications*. CRC Press.

⁶⁸ Barnard, C. (2012). *EU Employment Law*. OUP Oxford.

⁶⁹ Karwowski, W. (2005). *Handbook of Standards and Guidelines in Ergonomics and Human Factors*. CRC Press.

systematic application of preventive measures and risk management practices, the European Union aims to reduce both the human and economic costs associated with unsafe working environments.

The specific framework also promotes the development of a broader culture of wellbeing in the workplace. This includes physical safety, mental health, job satisfaction, and a work-life balance. As stated earlier, a distinctive attention has been given to emerging risks, such as psychosocial stress, workplace harassment, and the challenges associated with digitization and new forms of work. All in all, the OHS framework of the European Union mirrors a holistic and forward-looking approach, merging legal obligations, institutional mechanisms, and policy initiatives to ensure that worker protection remains a central element of the social model of the European Union.

4. Comparison between the Occupational Health Safety in Albania and the European Union

4.1. Current situation in Albania

In general, jobs in construction, factories, healthcare, or even offices can carry a vast array of risks. Regulations ensure that employers take responsibility for reducing those risks, instead of ignoring them to cut down on expenses. Historically, many protections, like limitations on working hours or requirements for protective equipment, only appeared after serious accidents or exploitation. Economic argument is also part of the wide discussion of this issue. When workers are treated fairly, they tend to be healthier, more productive, and more stable. This benefits not just individuals but the wider economy. Without solid regulation, companies may compete by lowering standards rather than improving quality or innovation. Official 2025 data referenced by the State Inspectorate of Labor and Social Services of Albania marked an increase of 45.5% of fatal accidents happening in the workplace, compared to 2024. Also, 70% of received complaints were resolved in favor of the employees, marking a positive increase in awareness and also gaining trust on the behalf of the employees⁷⁰. The available statistics point out two different directions simultaneously. Even if total employment or reporting improved, fatalities are the most extreme outcome, so a rise that large usually suggests real problems, weak enforcement of safety standards, high-risk sectors like construction not being properly monitored. This phenomenon highlights the argument that laws as a formality are insufficient. Instead, they ought to be actively enforced, with inspections, penalties, and prevention measures. On another note, the fact that a significant majority of the received complaints were resolved in favor of employees is a positive sign. It depicts that the employees are increasingly aware of their rights and are willing to report violations, and that institutions are providing responses and not merely ignoring complaints. These factors show that Albania is still in a transition phase. Awareness and reporting are increasing, while the rise in fatalities shows that prevention is lagging behind. This hints to a need for stronger inspections, stricter enforcement, and proactive safety measures to prevent those accidents from happening in the first place.

4.2. Review of the Law No. 10237/18.02.2010 (as amended) "On Safety and Health at Work" compared to the European Union legislation

In Albania, the OHS is regulated through *Law No. 10237, dated 18.02.2010 (as amended), "On Safety and Health at Work"*. The target of this law is to define measures aimed at ensuring the

⁷⁰ Politiko. (2026, March 18). Aksidentet fatale në punë u rritën me 45.5% në 2025, sinjal alarmi për sigurinë në Shqipëri. <https://politiko.al/english/e-tjera/aksidentet-fatale-ne-pune-u-rriten-me-455-ne-2025-sinjal-alarmi-per-sigu-i551617>

safety and health of the employees⁷¹. The responsibility of the employer should be considered as the key pillar of the relevant legal framework. In general, regulation of the safety and the health of the employees in the workplace is of high importance. Employers naturally have more power than individual workers. Without legal rules, some businesses would still treat employees fairly, but others might cut costs by minimizing the safety standards, extending working hours, or underpaying their staff. Laws create a baseline that each and everyone ought to follow, therefore basic dignity at work shall not depend on luck or the goodwill of a particular employer.

Article 4 of the Albanian law establishes the fundamental principle that the employer bears full responsibility for ensuring safety and health at work, emphasizing that this responsibility is not waived even when the employer delegates duties to other people or external services. The formulation of this Article is directly aligned with Article 5 of Directive 89/391/EEC, which provides for the full responsibility of the employer, for all of the aspects which are connected to work⁷². However, while the Directive treats this responsibility as a functional concept connected to the actual outcome of employee protection, the Albanian law tends to materialize it through a set of formal and procedural obligations, thus shifting the focus from real effectiveness to formal compliance.

Article 6 of the Albanian law further elaborates this responsibility by defining the general obligations of the employer, including risk prevention, the organization of protective measures, the provision of information and training to employees, and the implementation of technical and organizational measures. This provision constitutes a direct transposition of Article 6 of the Directive, which sets out the same general principles of prevention, including risk avoidance, risk assessment, and the adaptation of work to the individual. Still, the key difference lies in the way of implementation. The Directive requires the dynamic integration of these principles into the daily management of the undertaking, while Albanian law tends to consider them as obligations fulfilled through the drafting of formal documentation, without necessarily ensuring their practical implementation. This comparison is connected to the principles of prevention foreseen in Article 6(3), which include the avoidance of risks, combating risks at source, and prioritizing collective protection over the individual one. These principles are fully consistent with the Directive, which considers them as the foundation of occupational safety policy. However, while within the context of the European Union these principles are interpreted in a flexible and results-oriented manner, in Albania they tend to remain declaratory and are not translated into concrete risk management policies. However, exceptions can be pointed out in legal matters. The Supreme Court of Albania ruled in Decision 00-2023-5025(703) on 06.12.2023, in a case where the son of a government agency lost his life due to the inappropriate work conditions that were not fully supplied to his father by the agency. Both the First Degree Court and the Appeal Court ruled that the agency had not fulfilled the necessary requirements for their employee, unlike the Supreme Court. The latter, in the dispute under trial, specified that the situation was of mixed liability, since the courts of fact had to investigate exhaustively whether the conditions and rules that correspond to the profile of the work performed by the employee were respected and, on the other hand, the employer took all logistical measures to create an appropriate environment and in accordance with the legal and sub-legal acts in force, for the employee to perform his duties, and in the event of the failure of the employee to meet these conditions, there was also the concrete consequence of the loss of life of the employee. Therefore, no reasoning was given on the liability of the employer⁷³.

⁷¹ FAO; UN Women. (2024). *Gender-responsive Value Chain Analysis in Albania: Case Studies of Elbasan, Leskovik and Puka*. Food & Agriculture Org.

⁷² Kirch, W. (2008). *Promoting health for working women*. Springer.

⁷³ Decision 00-2023-5025(703) on 06.12.2023 of the Supreme Court of Albania.

With regard to risk assessment, the Albanian law provides for this obligation in Article 6 and further develops it in Article 32, which requires the employer to identify and assess risks related to the workplace and to inform employees accordingly. This provision aligns with the Directive, which regards risk assessment as an essential and continuous process. However, the fundamental difference lies in the nature of this process. The Directive requires a dynamic mechanism that is continuously updated, whereas in Albanian practice it is often reduced to a formal document which is drafted and does not reflect any feasible changes in the workplace. This situation is also relevant to the aforementioned decision of the Supreme Court of Albania. Another important aspect is connected to the role of employees. Through Article 2 and provisions connected to the safety council and employee representatives, the Albanian law provides for the rights of the employees to receive information and be part of any consultation. Differently, the Directive of the European Union requires a more active and effective involvement of the employees in decision-making processes which are connected to OHS. This brings a significant practical gap, as in Albania, employees often lack real influence over safety policies, thus weakening the effectiveness of the system.

In the field of occupational medicine, Article 39 of the Albanian law provides for the organization of health services to monitor health conditions of the employees. Although this is consistent with the Directive, which requires health surveillance, the Albanian approach is rather formal. Within the European Union, the organization of such services is more flexible and risk-based, whereas in Albania it is often limited to medical checks without a direct connection to specific workplace risks.

In regards to the workplace accidents, Articles 29 and 30 of the Albanian law establish the classification of accidents and the obligation to record and report them. These provisions are consistent with the European Union standards. However, the difference lies in their practical implementation and in the use of such data to improve preventive policies. On an European Union level, accident analysis serves as a key tool for developing safety policies, while in Albania it often remains a mere administrative requirement.

In terms of enforcement and supervision, Article 40 of the Albanian law grants the Labor Inspectorate the authority and competences to oversee compliance and enforce the law, including the power to suspend hazardous activities. However, unlike the European Union, where inspection mechanisms are generally stronger and more effective, Albania is weaker in terms of institutional capacity and the frequency of inspections. Also, Article 43 which is connected to relevant sanctions does not always ensure a real deterrent effect, as their practical enforcement remains limited.⁷⁴

All in all, the analysis demonstrates that Law No. 10237/2010 is, to a considerable extent, formally aligned with Directive 89/391/EEC, transposing most of its core provisions. However, the main differences do not lie in the legal text itself, but rather in the underlying philosophy of implementation. While the Directive of the European Union is based on a dynamic, results-oriented approach focused on effective risk management, the Albanian law is characterized by a more formal and procedural approach, which often fails to ensure effective protection of employees in practice. This highlights the need for reforms aimed not only at formal harmonization, but also at strengthening enforcement mechanisms and modernizing the overall approach to occupational safety and health.

⁷⁴ Qendra e Botimeve Zyrtare. (2024). *Kodi i Punës i Republikës së Shqipërisë*. Qendra e Botimeve Zyrtare.

5. Case analysis of an Albanian company: Discrepancy between formal compliance and practical implementation in Occupational Health and Safety

This section draws on the practical counseling and monitoring experience of Law & Health to illustrate a recurring structural issue within the OHS framework of Albanian, which is the discrepancy between the formal legal compliance and the substantive implementation. While Albania has significantly harmonized its legislation with the European Union standards, particularly through the alignment with Directive 89/391/EEC, this case study demonstrates that compliance often remains superficial, with limited translation into effective workplace practices.

The case of the company "ABC Sh.P.K." (a fictitious name used for confidentiality) exemplifies this gap. The company is a medium-sized enterprise operating in the construction materials production and processing sector, employing approximately eighty-five workers. Its operations involve exposure to multiple occupational hazards, including heavy machinery, chemical substances, and physically demanding tasks, situating it within a high-risk industrial category. Regardless of this, the company presents a profile that is, at least formally, compliant with the national legal framework governing OHS.

From a documentary perspective, the company appears in good alignment with the Albanian legislation. It has adopted an OHS Policy in accordance with Law No. 10237/2010, maintains a Risk Assessment Document updated biennially by an external consultant, and has established contractual relations with an occupational medicine service in compliance with Decision of the Council of Ministers of the Republic of Albania No. 639/2016. In addition, all of the available records show that all of the employees of the company have received certified training in OHS, first aid, and fire safety. Formally, the company meets the essential regulatory requirements and would likely pass a standard compliance audit focused on documentation. However, a deeper monitoring and counseling process conducted in 2025 revealed significant deficiencies in the practical application of these measures. These shortcomings highlight a systemic issue, which is the transformation of the legally required instruments into formalities rather than functional tools for risk management.

First, the Risk Assessment Document, which is arguably the cornerstone of preventive safety management, was found to be outdated in substance, despite being formally "up to date" within the required timeframe. It failed to mirror the important organizational and technical changes introduced in recent years, including the installation of a new production line and modifications to shift schedules. As a result, the document did not serve its intended purpose as a key instrument guiding preventive action, but instead it functioned as a static compliance artifact. Second, the employee participation mechanisms were effectively absent. Although company documentation referenced the existence of a Safety Council, this body had never been convened in practice. Employees were largely unaware of its existence and had not been involved in discussions or consultations regarding workplace safety, even following minor incidents such as slips or limited chemical exposure. This indicates a failure to operationalize participatory governance structures that are central to modern OHS systems.

Third, the role of occupational medicine within the company was found to be disconnected from actual workplace risks. While periodic medical examinations were conducted, they did not adequately address specific hazards present in the work environment, notably exposure to silica dust and elevated noise levels. This suggests a generic, rather than risk-based, approach to health surveillance, undermining its preventive value.

Ultimately, incident management practices revealed a reactive and minimalistic approach. Although the company maintained an accident log, reporting to the Labor Inspectorate was limited to cases where it was explicitly required or where the consequences were severe and visible. Minor incidents, despite resulting in lost workdays, were neither systematically

reported nor analyzed. This represents a missed opportunity for organizational learning and the prevention of future accidents.

When evaluated against the principles foreseen in the Directive 89/391/EEC, these practices would be considered non-compliant in several key respects. The failure to update the risk assessment in response to workplace changes contravenes Article 6(3)(a), which requires employers to adapt preventive measures dynamically. The absence of effective employee involvement violates Article 11, which emphasizes consultation and participation. In addition, the misalignment between the health surveillance and the actual workplace risks conflicts with Article 14, which mandates appropriate health monitoring based on identified hazards.

Therefore, this case provides a clear illustration of a broader structural issue within the Albanian context. While the legislative harmonization with the EU standards has been largely achieved, its implementation remains constrained by a compliance culture focused on documentation rather than outcomes. The persistence of this gap suggests that legal transposition alone is not sufficient to ensure effective protection of the health and safety of the workers.

Most important, the intervention carried out by Law & Health demonstrates that meaningful improvements can be achieved without legislative reform. Through targeted counseling, the company undertook several corrective actions that reflect a shift toward a more functional and preventive approach. The risk assessment was substantively updated to incorporate recent changes in work processes, a formal communication channel with employee representatives was established to facilitate ongoing consultation, and the occupational medicine service was restructured to address specific risks such as silica dust and noise exposure. In addition, an internal procedure was introduced requiring the analysis of all incidents, regardless of severity, thereby promoting a culture of continuous improvement.

All in all, this case study underscores that the key challenge in the OHS system of Albania lies not in the legal framework itself, but in its practical application. Bridging the gap between formal compliance and effective implementation requires a fundamental shift in organizational mindset, from viewing safety obligations as administrative requirements to embracing them as integral components of risk management and workplace culture. Such a shift aligns with the preventive, participatory philosophy underpinning Directive 89/391/EEC, and it is essential for achieving tangible improvements in occupational health and safety outcomes.

6. Conclusion

The comparative analysis of this paper shows that Albania has made significant progress in aligning its Occupational Health and Safety framework with that of the European Union. The transposition of core principles stemming from Directive 89/391/EEC into the national legal order, particularly through Law No. 10237/2010, mirrors a clear and structured effort to approximate the *acquis communautaire*. At a normative level, the Albanian legal framework comprises the essential pillars of contemporary OHS regulation, including employer responsibility, risk assessment, preventive measures, employee information and consultation, and occupational health services. This level of formal harmonization indicates that Albania is legally well-positioned within the broader European Union model of workplace safety and health protection.

The analysis also makes evident that formal alignment does not necessarily mean that there is effective implementation. The main challenge identified in the analysis is the persistence of a compliance culture that prioritizes formal documentation over substantive risk management and practical implementation. This discrepancy between law in writing and law in action constitutes the most significant structural weakness of the Albanian OHS system. While the European Union framework is dynamic, preventive, and results-oriented, the Albanian one

remains procedural and static, often minimizing key instruments such as risk assessments, employee participation mechanisms, and health surveillance to formal obligations rather than functional tools. The statistical data discussed in the analysis further reinforces this conclusion. The reported increase in fatal workplace accidents during 2025 highlights serious deficiencies in the practical enforcement of safety standards, particularly in high-risk sectors. Simultaneously, the increasing number of complaints resolved in favor of employees suggests a positive evolution in terms of awareness, institutional responsiveness, and trust in enforcement mechanisms. These two trends show that Albania is currently going through a transitional phase in its OHS development. This means that although the institutional and legal infrastructure is gradually improving, preventive capacity and effective risk control remain insufficiently developed.

The case study of the company "ABC Sh.P.K." provides a specific example of these systemic issues. Despite formal compliance with legal requirements, the company failed to operationalize key OHS principles in practice, thereby exposing workers to avoidable risks. This example confirms that the gap between formal compliance and effective implementation is not merely theoretical, but it actually manifests in everyday workplace realities. Simultaneously, the improvements achieved through targeted intervention show that meaningful change is possible even within the existing legal framework. This finding is relatively important, as it indicates that the primary need is not necessarily further legislative reform, but a transformation in the manner that the existing obligations are comprehended, applied, and enforced.

Following these findings, the future development of the Albanian OHS system should pay closer attention to strengthening implementation mechanisms and fostering a genuine culture of prevention. These actions demand a multidimensional approach.

First, the capacity and effectiveness of labor inspection bodies must be enhanced, both in terms of resources and in terms of adopting more risk-based and proactive inspection strategies. Second, enforcement mechanisms, including sanctions, should be applied in a more consistent and dissuasive manner to ensure that non-compliance carries real consequences. Third, greater emphasis should be placed on awareness-raising and training, particularly among small and medium-sized enterprises, which often lack the expertise and resources to implement OHS standards effectively. Of the same importance is the need to empower employees and ensure their meaningful participation in workplace safety governance. The European Union model clearly shows that effective OHS systems are built on shared responsibility, where workers are active contributors to risk identification and prevention. Strengthening the mechanisms for consultation, representation, and dialogue is essential for filling in the gap between formal structures and practical outcomes. Ultimately, Albania should continue to adapt its OHS framework to emerging risks, including psychosocial factors, technological changes, and new forms of work organization. Aligning with the European Union in this regard requires not only legislative approximation, but it also includes the adoption of a forward-looking and flexible regulatory mindset.

All in all, the path of Albania toward full alignment with the European Union standards in Occupational Health and Safety is well advanced in formal terms, but remains incomplete in practice. The key challenge moving forward lies in shifting from a system centered on formal compliance to one driven by effective prevention, continuous improvement, and genuine commitment to worker wellbeing. Achieving this transformation is essential not only for meeting the European Union requirements, but also for guaranteeing sustainable economic development and the protection of human dignity in the workplace.

References

Barnard, C. (2012). *EU employment law*. Oxford University Press.

- Bohle, P., & Quinlan, M. (2000). *Managing occupational health and safety: A multidisciplinary approach*. Macmillan.
- Food and Agriculture Organization of the United Nations, & UN Women. (2024). *Gender-responsive value chain analysis in Albania: Case studies of Elbasan, Leskovik and Puka*. FAO.
- Karwowski, W. (2005). *Handbook of standards and guidelines in ergonomics and human factors*. CRC Press.
- Kirch, W. (2008). *Promoting health for working women*. Springer.
- Organisation for Economic Co-operation and Development (OECD). (2024). *Western Balkans competitiveness outlook 2024: Albania*. OECD Publishing.
- Politiko. (2026, March 18). *Aksidentet fatale në punë u rritën me 45.5% në 2025, sinjal alarmi për sigurinë në Shqipëri*. <https://politiko.al/english/e-tjera/aksidentet-fatale-ne-pune-u-rriten-me-455-ne-2025-sinjal-alarmi-per-sigu-i551617>
- Qendra e Botimeve Zyrtare. (2024). *Kodi i punës i Republikës së Shqipërisë*. Qendra e Botimeve Zyrtare.
- Schmeisser, W., Krimphove, D., & Popp, R. (2013). *International human resource management and international labour law: A human resource management accounting approach*. De Gruyter.
- Supreme Court of Albania. (2023, December 6). *Decision No. 00-2023-5025 (703)*. https://gjykata-media.s3.eu-central-1.amazonaws.com/Vendimi_nr_Nr_00_2023_5025_i_Vendimit_703_date_6_12_2023_i_KCGJL_665_b091f91.doc
- Ullah, A., & Ahmed, S. (Eds.). (2025). *Nanotechnology in food packaging and preservation: Principles and practical applications*. CRC Press.

THE EUROPEAN ENTREPRENEURIAL ECOSYSTEM: DOMAIN INTEGRATION, POLICY FRAMEWORKS AND INNOVATION DYNAMICS

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Abstract

Entrepreneurial ecosystems have emerged as an important analytical framework for understanding how institutional environments shape entrepreneurial activity and innovation. Rather than focusing solely on individual entrepreneurs or firms, the ecosystem perspective emphasises the interaction between actors, institutions and resources that collectively support the creation and growth of new firms. This paper examines the structure and dynamics of the European entrepreneurial ecosystem by analysing the interaction among its core domains, including entrepreneurial culture, human capital, networks, infrastructure, policy frameworks and financing mechanisms. Drawing on the entrepreneurial ecosystem literature (Ratten, 2020; Spiegel & Stam, 2018; Stam, 2015), the study adopts a conceptual research approach supported by examples from European innovation hubs. Particular attention is given to the role of digital transformation and regulatory innovation in shaping entrepreneurial opportunities. European initiatives such as Horizon Europe, Erasmus+, and the European Investment Fund are examined as mechanisms that strengthen ecosystem capabilities and support innovation-driven entrepreneurship (European Commission, 2023a, 2024). The paper also analyses the effects of regulatory change through the case of the Revised Payment Services Directive (PSD2), which has contributed to the development of fintech startups and the expansion of open banking across Europe. The findings suggest that the effectiveness of entrepreneurial ecosystems depends primarily on the integration and coordination of ecosystem domains, highlighting the importance of institutional alignment, knowledge transfer and supportive regulatory environments for fostering sustainable entrepreneurial development in Europe.

Keywords: entrepreneurial ecosystem, innovation policy, digital transformation, European Union, entrepreneurship.

Introduction

Entrepreneurship is widely recognised as a fundamental driver of economic growth, innovation and employment. In contemporary knowledge-based economies, entrepreneurial firms play an important role in transforming new ideas and technological developments into commercially viable products and services. As a result, both policymakers and scholars have increasingly focused on understanding the broader conditions that enable entrepreneurial activity to emerge and develop successfully.

Over the past decade, the concept of the entrepreneurial ecosystem has gained significant attention as a framework for analysing the environmental factors that influence entrepreneurial outcomes. Rather than examining entrepreneurship solely at the level of individual entrepreneurs or firms, the ecosystem perspective emphasises the complex interactions between multiple actors, institutions and resources that collectively shape entrepreneurial opportunities (Spigel & Stam, 2018; Stam, 2015). Within such environments, entrepreneurs operate within networks that include universities, investors, policymakers, support organisations and other firms that together contribute to the creation and development of new firms.

Entrepreneurial ecosystems therefore represent more than a simple aggregation of economic actors. They function as dynamic systems in which relationships between stakeholders facilitate the exchange of knowledge, financial resources and capabilities. Through these interactions, entrepreneurs gain access to information, expertise and institutional support that influence their ability to identify opportunities, mobilise resources and develop innovative firms (Ratten, 2020). Consequently, the structure and quality of these interactions play a critical role in determining the capacity of an ecosystem to generate sustainable entrepreneurial activity.

Within the European Union, the development of entrepreneurial ecosystems has become an important strategic priority. European economic policy increasingly emphasises innovation, digital transformation and knowledge-based entrepreneurship as key sources of competitiveness and long-term economic development. A range of initiatives at the European level aim to strengthen research capacity, foster technological innovation and support entrepreneurial activity across member states. Programmes such as Horizon Europe, Erasmus+ and the European Innovation Council illustrate the European Union’s commitment to building institutional environments that encourage innovation and the creation of new firms (European Commission, 2023a, 2024).

Despite these efforts, entrepreneurial ecosystems across Europe remain uneven in their development. Differences in institutional quality, access to financing, digital infrastructure, human capital and entrepreneurial culture continue to influence the ability of different regions to generate innovative startups and high-growth firms. As a result, understanding how these various components interact within the European context remains an important challenge for both researchers and policymakers.

This paper argues that the effectiveness of the European entrepreneurial ecosystem depends largely on the integration and coordination of its institutional, technological and financial domains, rather than on the presence of isolated support mechanisms alone. In particular, the interaction between policy frameworks, innovation networks and digital technologies plays a crucial role in shaping entrepreneurial opportunities and enabling the emergence of new firms (Autio et al., 2018).

To explore this argument, the paper first examines the conceptual foundations of entrepreneurial ecosystems and the key domains that structure these systems. It then analyses the core components of the European entrepreneurial ecosystem and discusses how their interaction supports entrepreneurial development and innovation. The study further investigates the role of regulatory innovation through the example of PSD2, which has significantly influenced the development of the European fintech sector. Finally, the paper discusses the implications of these findings for entrepreneurship policy and outlines directions for future research on entrepreneurial ecosystems.

Conceptual Framework of the European Entrepreneurial Ecosystem

Origins of the Ecosystem Concept

The concept of an ecosystem originates from the field of ecology, where it was introduced to describe the complex interactions between living organisms and their surrounding environment. Tansley (1935) defined an ecosystem as a system composed of organisms and environmental elements that interact as an integrated whole. Over time, this ecological metaphor has been adopted in several disciplines, including economics, management and innovation studies. One of the earliest applications of the ecosystem concept to business research was proposed by Moore (1993), who introduced the notion of a business ecosystem and argued that firms co-evolve through both cooperation and competition within interconnected networks of organisations.

Since then, the ecosystem perspective has been widely adopted in research on innovation and entrepreneurship. Scholars have identified several related concepts, including business ecosystems, innovation ecosystems, knowledge ecosystems and entrepreneurial ecosystems. While these concepts share certain similarities, they differ in terms of the actors involved and the mechanisms through which value is created and distributed (Thomas & Autio, 2020).

Within entrepreneurship research, the ecosystem perspective represents a shift away from analysing individual entrepreneurs or firms in isolation. Instead, it emphasises the broader institutional and relational environment within which entrepreneurial activity takes place. This environment includes networks of actors, institutions and resources that collectively shape the conditions under which new firms emerge and grow (Stam, 2015).

Entrepreneurial Ecosystems in Entrepreneurship Research

The concept of the entrepreneurial ecosystem combines two fundamental elements: the idea of an ecosystem and the process of entrepreneurship. Entrepreneurship is commonly understood as the process through which individuals or organisations create value by identifying and exploiting opportunities through the innovative combination of resources (Shane & Venkataraman, 2000; Stevenson & Jarillo-Mossi, 1986). This process typically involves uncertainty, risk-taking and the ability to mobilise resources in dynamic market environments. The growing interest in entrepreneurial ecosystems reflects a broader evolution in entrepreneurship research. Earlier studies frequently focused on the characteristics or personality traits of individual entrepreneurs. More recent work, however, emphasises the role of institutional and environmental conditions in shaping entrepreneurial behaviour and outcomes.

From this perspective, entrepreneurship is embedded within a wider system of relationships and institutions. Entrepreneurs interact with a variety of stakeholders including investors,

universities, policymakers, support organisations and other firms. These interactions influence access to knowledge, capital and market opportunities.

Stam (2015) defines entrepreneurial ecosystems as a set of interconnected actors and factors that together enable productive entrepreneurship within a specific geographical area. Productive entrepreneurship refers to entrepreneurial activity that contributes positively to economic development and societal welfare. According to this perspective, successful ecosystems require not only entrepreneurs but also supportive institutions, access to resources and a favourable cultural environment.

Spigel and Stam (2018) further emphasise the importance of ambitious entrepreneurship within entrepreneurial ecosystems. Ambitious entrepreneurs typically pursue high-growth opportunities and develop innovative products or services that can scale rapidly across markets. Startups and scale-ups created by such entrepreneurs often play a central role in driving technological innovation, job creation and regional economic development (Acs et al., 2014; Stam, 2015).

Consequently, entrepreneurial ecosystems can be understood as collaborative environments in which diverse actors interact and contribute complementary resources and capabilities. Through these interactions, ecosystems facilitate knowledge exchange, innovation and value creation.

Dynamic and Spatial Characteristics of Entrepreneurial Ecosystems

Entrepreneurial ecosystems are inherently dynamic systems that evolve over time. Unlike static models of economic development, the ecosystem perspective recognises that entrepreneurial environments change continuously as a result of technological developments, policy interventions and evolving relationships between actors.

A sustainable entrepreneurial ecosystem does not emerge instantly. Instead, it typically develops gradually through institutional evolution, the accumulation of knowledge and the strengthening of collaborative networks. Early research on entrepreneurial ecosystems often provided static descriptions or “snapshots” of ecosystem structures. More recent studies emphasise the importance of examining the processes through which ecosystems develop and transform.

Spigel (2015) describes entrepreneurial ecosystems as dynamic networks composed not only of individual actors but also of the relationships between them. These relationships facilitate the exchange of knowledge, resources and capabilities that support entrepreneurial activity. As ecosystems evolve, they adapt to changes in technological conditions, market opportunities and policy frameworks.

Another defining feature of entrepreneurial ecosystems is their geographical dimension. Ecosystems are frequently associated with specific locations such as cities, regions or innovation clusters. Although entrepreneurs may operate globally, the interactions that enable entrepreneurial development often occur within geographically concentrated environments.

Fredin and Lidén (2020) note that entrepreneurial ecosystems may operate at multiple levels, including university campuses, metropolitan regions, national economies and international networks. Successful ecosystems typically emerge through interactions across these different levels, where actors collaborate to support innovation and business development.

Within these environments, a diverse range of stakeholders contributes to ecosystem functioning. These actors may include entrepreneurs, investors, universities, research

a coordinated manner, they create an environment that supports innovation, collaboration and venture creation.

Entrepreneurial Culture

Entrepreneurial culture represents one of the most significant intangible components of entrepreneurial ecosystems. Cultural values influence how individuals perceive risk, innovation and business creation. Regions often develop distinct entrepreneurial cultures that shape entrepreneurial activity and tend to persist over long periods of time (Fritsch & Wyrwich, 2018). Societies that are more tolerant of uncertainty, experimentation and risk-taking tend to generate higher levels of entrepreneurial activity and business ownership (Stam, 2015; Wennekers et al., 2007). Within entrepreneurial ecosystems, culture influences not only individual attitudes toward entrepreneurship but also broader social norms related to collaboration, innovation and knowledge sharing (Spigel, 2017).

Several European countries illustrate how supportive cultural and institutional environments contribute to strong entrepreneurial ecosystems. In the Netherlands, entrepreneurship develops within a well-established innovation system supported by strong knowledge institutions, open networks and favourable institutional conditions (Stam, 2014; Stam & Bosma, 2015). These characteristics have contributed to the development of a collaborative entrepreneurial environment in which knowledge exchange and international market orientation are widely encouraged.

Similarly, Sweden has developed a distinctive entrepreneurial culture grounded in values such as trust, collaboration and social equality. These values support cooperative innovation processes and facilitate the development of new firms. In addition, the Swedish welfare system reduces the personal risks associated with entrepreneurial activity, allowing individuals to experiment with new business ideas without facing severe financial consequences if their firms fail. These institutional and cultural conditions have contributed to the emergence of Stockholm as one of Europe's most prominent startup ecosystems (Startup Genome, 2021).

Entrepreneurial culture therefore plays a critical role in shaping how ecosystems respond to economic challenges and technological change. Regions characterised by supportive cultural norms and strong institutional frameworks tend to demonstrate greater adaptability and resilience during periods of economic transformation (Stam, 2015).

Human Capital

Human capital represents a fundamental component of entrepreneurial ecosystems. The availability of skilled professionals, researchers and entrepreneurs significantly influences the capacity of a region to generate innovation and support business development. Individuals with specialised knowledge and technical expertise play a crucial role in transforming ideas into commercially viable products and services and in facilitating knowledge transfer across organisations and sectors (Audretsch et al., 2021; Stam, 2015).

Within the European context, educational institutions and training programmes contribute substantially to the development of human capital. Initiatives such as the Erasmus+ programme promote international academic mobility and encourage collaboration between universities across member states. Through these programmes, students and professionals gain cross-border experience, develop intercultural competencies and acquire skills that are highly relevant to innovation-driven entrepreneurship (European Commission, 2024).

In addition to higher education, vocational education and training systems also contribute significantly to the development of entrepreneurial and technical skills. Germany provides a well-known example through its dual education system, which combines classroom-based instruction with practical workplace training. This system allows students to acquire both theoretical knowledge and applied skills closely aligned with labour market needs and industry requirements (OECD, 2021).

Highly skilled human capital is particularly important for technology-oriented startups operating in fields such as artificial intelligence, data analytics and cybersecurity. Regions with strong concentrations of skilled professionals tend to attract greater levels of investment, stimulate innovation and generate more dynamic entrepreneurial activity (Stam, 2022).

Networks

Networks represent the relational infrastructure of entrepreneurial ecosystems. Through networks, entrepreneurs gain access to knowledge, mentorship, financial resources and strategic partnerships that support the development and growth of new firms. Entrepreneurial ecosystems consist of interconnected actors—including entrepreneurs, investors, universities, research institutions and support organisations—whose interactions facilitate knowledge exchange and the mobilisation of resources necessary for entrepreneurial activity (Brown & Mason, 2017; Spigel, 2017).

Entrepreneurial networks may take both formal and informal forms. Formal networks include structured organisations such as industry associations, innovation clusters and startup accelerators. Informal networks often emerge through personal relationships, professional communities and collaborative events. Both forms of interaction contribute to the circulation of knowledge, the diffusion of innovation and the formation of partnerships that enable entrepreneurs to overcome resource constraints and develop their firms.

Empirical research across European regions confirms the importance of collaborative networks for innovation and entrepreneurial development. Studies analysing research and innovation collaborations within the European Union show that interactions between firms, universities and research organisations significantly shape regional innovation dynamics and facilitate knowledge spillovers (Scherngell & Barber, 2010). Similarly, comparative analyses of European entrepreneurial ecosystems demonstrate that the effectiveness of ecosystem performance depends not only on the presence of individual resources but also on the interactions and coordination among ecosystem actors (Komlósi, 2025).

Consequently, networks play a critical role in enabling entrepreneurial ecosystems to function effectively. By connecting diverse actors and facilitating the exchange of knowledge, capital and experience, networks strengthen the capacity of ecosystems to support innovation, venture creation and sustainable economic development.

Infrastructure

Infrastructure constitutes an important structural component of entrepreneurial ecosystems by providing the physical and digital conditions that enable entrepreneurial activity. Reliable digital connectivity, efficient transportation systems and accessible innovation spaces allow startups to operate effectively, connect with partners and reach both domestic and international markets. Within entrepreneurial ecosystems, such infrastructure supports interactions among entrepreneurs, investors, research institutions and support organisations, facilitating the

circulation of knowledge and resources necessary for venture development (Audretsch & Belitski, 2017; Stam, 2015).

Digital infrastructure has become increasingly significant in contemporary innovation-driven economies. Digital technologies and online platforms enable new forms of entrepreneurial activity by allowing firms to access distributed resources, collaborate across geographical boundaries and develop innovative digital services. These technologies reduce entry barriers for startups and create opportunities for new business models based on data, platforms and digital networks (Nambisan et al., 2019).

Physical innovation infrastructure also plays a key role in supporting entrepreneurial ecosystems. Technology parks, incubators, co-working spaces and innovation campuses provide environments in which entrepreneurs, investors and researchers can interact, exchange knowledge and develop collaborative projects. These organisational spaces often facilitate mentoring, access to investors and the development of professional networks that support the growth of early-stage firms (Pauwels et al., 2016; Spigel, 2017).

A prominent example of innovation infrastructure in Europe is Station F in Paris, one of the largest startup campuses in the world. Station F hosts hundreds of startups and provides shared workspaces, accelerator programmes and mentoring initiatives that encourage collaboration between entrepreneurs, investors and corporations. Such infrastructures illustrate how dedicated innovation spaces can strengthen entrepreneurial ecosystems by concentrating resources, expertise and networks in a single location.

Universities and Research Institutions

Universities and research institutions represent a central pillar of entrepreneurial ecosystems by generating knowledge, developing human capital and supporting the commercialisation of innovation. Through research activities, scientific collaboration and educational programmes, universities contribute significantly to the creation of new technologies and the development of entrepreneurial capabilities. Academic institutions therefore function not only as centres of knowledge production but also as key actors in regional innovation systems and entrepreneurial ecosystems (Audretsch & Lehmann, 2005; Etzkowitz & Leydesdorff, 2000).

One of the most important contributions of universities to entrepreneurial ecosystems is the generation and diffusion of knowledge. According to the knowledge spillover theory of entrepreneurship, new knowledge created within universities and research institutions can stimulate the formation of innovative startups and technology-based firms when entrepreneurs exploit opportunities arising from scientific discoveries (Audretsch & Lehmann, 2005). In this way, academic research often serves as a foundation for technological innovation and the emergence of new industries.

Universities also play an important role in facilitating the commercialisation of research through technology transfer mechanisms. Technology transfer offices, research partnerships and university spin-offs allow academic discoveries to be transformed into marketable products and services. These mechanisms help bridge the gap between scientific research and commercial innovation, enabling entrepreneurs to access intellectual property, research infrastructure and specialised expertise (Wright et al., 2007).

In addition, many universities actively support entrepreneurship through incubators, accelerators and entrepreneurship education programmes. These initiatives provide students and researchers with mentorship, training and access to entrepreneurial networks, thereby encouraging the creation of new firms. As a result, universities increasingly function as

entrepreneurial institutions that contribute directly to regional economic development and innovation ecosystems (Etzkowitz, 2003; Guerrero et al., 2014).

Policy Frameworks

Government policies and regulatory frameworks play an important role in shaping the institutional environment in which entrepreneurial ecosystems operate. Public policy can influence entrepreneurial activity by establishing favourable institutional conditions, supporting innovation and facilitating collaboration between research institutions, firms and investors (Audretsch & Belitski, 2017; Stam, 2015).

Within the European Union, innovation and entrepreneurship policies increasingly aim to strengthen entrepreneurial ecosystems and support technology-driven firms. European initiatives such as Horizon Europe and the European Innovation Council provide funding for research, innovation and high-growth entrepreneurial firms across member states (European Commission, 2024).

By coordinating innovation policies across national and regional levels, European institutions contribute to the development of entrepreneurial ecosystems that support venture creation, knowledge transfer and technological development.

Financing Mechanisms

Access to financial resources represents a critical component of entrepreneurial ecosystems. New firms typically require capital in order to develop products, recruit employees, conduct research and development activities and expand into new markets. Limited access to financing can therefore represent a major barrier to entrepreneurial activity and the growth of innovative firms (Acs et al., 2014; Audretsch & Belitski, 2017).

Within entrepreneurial ecosystems, financing is provided through several complementary channels, including venture capital funds, angel investors and public funding programmes. Venture capital firms play a particularly important role in supporting high-growth startups by providing equity financing in exchange for ownership stakes. In addition to financial capital, venture capital investors often contribute managerial expertise, strategic guidance and access to professional networks that help startups scale their operations (Cumming & Johan, 2017; Lerner & Nanda, 2020).

Business angels represent another important source of early-stage financing. Angel investors typically provide smaller investments during the initial stages of venture development, when startups often face difficulties accessing traditional forms of finance. Beyond financial resources, angel investors frequently offer mentorship, industry knowledge and valuable networks that support the growth of new firms (Mason & Harrison, 2016).

Public funding programmes also play a significant role in supporting innovation and entrepreneurship, particularly in technology-intensive sectors where private investment may be limited during the early stages of development. In the European context, initiatives supported by institutions such as the European Investment Fund and the European Innovation Council provide financial support for startups and scale-ups, helping to reduce financial barriers and stimulate innovation-driven entrepreneurship (European Commission, 2023a).

Together, these financing mechanisms form an essential pillar of entrepreneurial ecosystems by enabling entrepreneurs to mobilise the financial resources required to develop innovative firms and scale their activities.

Support Systems

Support systems represent another essential component of entrepreneurial ecosystems. These systems include incubators, accelerators, advisory organisations and entrepreneurship training programmes that provide guidance, mentorship and resources to entrepreneurs during the early stages of venture creation. By offering structured support and access to expertise, these organisations help entrepreneurs transform innovative ideas into viable business models (Isenberg, 2011; Spigel, 2017).

Business incubators typically provide workspace, mentoring services and business development assistance to early-stage startups. These organisations create supportive environments in which entrepreneurs can refine their business concepts, access professional advice and connect with potential investors and partners. Research suggests that incubators can improve the survival rates of new firms by providing access to resources, networks and managerial guidance (Pauwels et al., 2016).

Startup accelerators represent a more recent form of entrepreneurial support infrastructure. These programmes usually operate over a fixed period and provide intensive mentoring, networking opportunities and access to investors. Accelerators aim to help startups scale rapidly by connecting entrepreneurs with experienced mentors, venture capitalists and industry experts. Participation in accelerator programmes has been shown to enhance startup growth potential and increase the likelihood of attracting follow-on investment (Cohen et al., 2019).

More broadly, support organisations such as entrepreneurship centres, innovation hubs and technology parks contribute to strengthening entrepreneurial ecosystems by fostering collaboration and knowledge exchange among ecosystem actors. Through mentoring programmes, networking events and advisory services, these organisations facilitate the development of entrepreneurial capabilities and improve the overall performance of entrepreneurial ecosystems (Audretsch & Belitski, 2017).

The European Single Market

The European Single Market represents an important institutional framework supporting entrepreneurial activity within the European Union. By reducing trade barriers and harmonising regulations across member states, the Single Market enables firms to operate within an integrated economic space that facilitates cross-border business activity and innovation. The free movement of goods, services, capital and labour allows entrepreneurs to access new markets, attract international talent and expand their firms beyond national boundaries (European Commission, 2023a).

For startups and innovative firms, the Single Market significantly expands potential market opportunities by providing access to a large consumer base across multiple European economies. This integrated market environment reduces regulatory fragmentation and encourages cross-border entrepreneurship, enabling firms to scale their products and services more efficiently. As a result, startups operating in the European Union can develop business models that target international markets from their early stages of development (Audretsch & Belitski, 2017).

The Single Market is particularly important for digital and technology-based firms, which often rely on cross-border platforms and digital services. European initiatives aimed at strengthening the digital economy, including the development of a Digital Single Market, seek to improve digital connectivity, harmonise regulations and support the growth of innovative digital firms. These policies contribute to the development of entrepreneurial ecosystems by creating a more

integrated and supportive institutional environment for innovation and entrepreneurship (European Commission, 2023a).

Consequently, the European Single Market functions as a key institutional pillar that supports entrepreneurial ecosystems by facilitating market access, encouraging innovation and strengthening economic integration across member states.

Technology and Innovation

Technological innovation represents a fundamental driver of entrepreneurial activity within contemporary entrepreneurial ecosystems. Advances in digital technologies have transformed the ways in which new firms are created, developed and scaled. Emerging technologies such as artificial intelligence, blockchain and big data analytics have opened new opportunities for entrepreneurial innovation by enabling firms to develop new products, services and business models (Autio et al., 2018; Nambisan et al., 2019).

Digital technologies play an increasingly important role in shaping innovation processes within entrepreneurial ecosystems. Digital platforms allow entrepreneurs to access distributed resources, collaborate across geographic boundaries and reach global markets more efficiently. As a result, digital transformation has significantly expanded the scope of entrepreneurial activity and reduced entry barriers for technology-based firms (Nambisan et al., 2019).

Artificial intelligence technologies are increasingly applied in sectors such as healthcare, manufacturing and financial services. These technologies allow organisations to analyse large datasets, automate processes and improve decision-making capabilities. For startups, the availability of advanced data analytics and machine learning tools creates opportunities to develop innovative solutions that address complex economic and societal challenges (Autio et al., 2018).

Blockchain technology has also attracted significant attention due to its potential to transform financial services and digital transactions. By enabling secure and transparent decentralised record-keeping systems, blockchain technologies support the development of new financial platforms, digital assets and smart contract applications. Similarly, big data analytics enables firms to generate insights from large datasets, improving strategic decision-making and supporting innovation-driven entrepreneurship (Nambisan et al., 2019; Tapscott & Tapscott, 2018).

Overall, technological innovation plays a critical role in shaping entrepreneurial ecosystems by enabling new forms of entrepreneurial activity, facilitating digital business models and supporting the development of technology-driven firms.

Integration of Ecosystem Domains

The effectiveness of entrepreneurial ecosystems ultimately depends on the interaction and coordination of their various domains. Individual components such as human capital, infrastructure, financial resources or policy frameworks may support entrepreneurial activity independently, but their impact becomes significantly stronger when these elements operate in an integrated and mutually reinforcing manner. The entrepreneurial ecosystem perspective emphasises that successful ecosystems emerge from the interaction of multiple actors and institutions rather than from the presence of isolated factors (Spigel & Stam, 2018; Stam, 2015). Integrated ecosystems facilitate collaboration between universities, firms, investors and government institutions. These interactions promote knowledge transfer, improve resource allocation and create favourable conditions for the development of innovative firms. When

ecosystem actors are well connected through networks and institutional support structures, entrepreneurs are better able to access knowledge, capital and markets necessary for venture creation and growth (Audretsch & Belitski, 2017).

Research on entrepreneurial ecosystems also suggests that strong coordination among ecosystem domains enhances regional innovation capacity and economic resilience. Regions characterised by dense networks, supportive policy environments and well-developed knowledge institutions tend to generate higher levels of entrepreneurial activity and technological innovation (Stam, 2022). The interaction between these domains therefore plays a central role in determining the overall performance of entrepreneurial ecosystems.

Moreover, integrated ecosystems are better able to adapt to periods of economic uncertainty or technological disruption. During periods of structural change, such as the digital transformation of industries or economic crises, ecosystems characterised by strong collaboration and institutional alignment are more capable of supporting entrepreneurial experimentation and innovation-driven growth.

Overall, the integration of ecosystem domains generates important synergies that strengthen entrepreneurial ecosystems and support long-term economic development.

This study employs a conceptual synthesis approach to examine the structure and domain interactions of the European entrepreneurial ecosystem (Jaakkola, 2020). Rather than collecting primary data, it integrates academic literature from entrepreneurship, innovation studies and European policy analysis with an illustrative case study (PSD2) to demonstrate practical domain interdependence.

Literature was identified using Google Scholar with targeted searches conducted between May 2025 and December 2025. Key search terms included "entrepreneurial ecosystem" AND Europe, "entrepreneurial ecosystem" AND (policy OR regulation OR finance), and Stam 2015 OR "Spigel Stam" AND domains. Inclusion criteria prioritised peer-reviewed articles (2010–2026), EU policy documents and seminal works (pre-2010), while excluding non-English sources and practitioner reports lacking empirical grounding. Core sources synthesised include Stam (2015), Spigel and Stam (2018), Audretsch and Belitski (2017), and Autio et al. (2018). The analysis follows three integrated stages. First, it reviews conceptual foundations of entrepreneurial ecosystems to identify core domains (culture, human capital, networks, policy, finance, etc.). Second, it examines European-specific manifestations and interactions across these domains. Third, it synthesises domain interdependence, illustrated through PSD2 case analysis showing how regulatory innovation activated multiple domains simultaneously (regulation, digital infrastructure, venture capital, fintech scaling) (Cáceres et al., 2025; Zachariadis & Özcan, 2017).

This approach enables rigorous theoretical development while maintaining practical relevance for European entrepreneurship policy (Corley & Gioia, 2011).

Regulatory Innovation and Fintech Entrepreneurship: The PSD2 Case

Regulatory frameworks play a central role in shaping the conditions under which entrepreneurial activity develops, particularly in highly regulated sectors such as financial services (Stam, 2015). In such contexts, regulatory reforms can substantially alter market structures, levels of competition and opportunities for innovation (Alt et al., 2018). Within the European entrepreneurial ecosystem, recent policy initiatives increasingly seek to stimulate technological development and encourage new market entrants (European Commission, 2023b). From an ecosystem perspective, regulation therefore represents a key institutional

domain that interacts with elements such as digital infrastructure, financial capital and human capital in shaping entrepreneurial opportunities (Spigel & Stam, 2018; Stam, 2015).

A prominent example of regulatory innovation in the PSD2, adopted in 2015 and applied across EU member states from 13 January 2018 (European Commission, 2017; European Central Bank, 2018). PSD2 constitutes a major reform of the European payments market and aims to enhance competition, strengthen consumer protection and promote innovation in digital financial services (European Commission, 2017, 2023a). It forms part of the broader European strategy to build an integrated Digital Single Market and to foster financial innovation within the Single Market (European Commission, 2018).

One of the most significant features of PSD2 is the introduction of open banking, which allows authorised third-party providers to access bank customers' account data with their explicit consent (European Commission, 2017; Digital Frontiers Institute, 2019). Before the directive came into force, incumbent financial institutions largely controlled access to this information, which restricted the ability of new entrants to develop data-driven financial services (Zachariadis & Özcan, 2017). By requiring banks to grant access through secure application programming interfaces, PSD2 lowered barriers to entry and enabled financial technology firms to offer innovative payment initiation, account information and related services (European Commission, 2017; Mambu, 2022). In effect, the directive created a shared digital infrastructure layer on top of which fintech startups could build scalable, platform-based business models (Gomber et al., 2017).

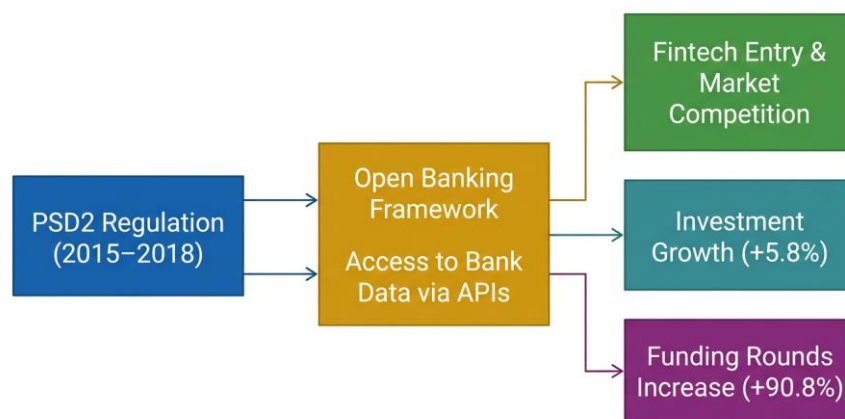
Recent empirical work suggests that PSD2 has had a discernible impact on investment and firm dynamics in the European PayTech segment. A Joint Research Centre study reports that, following the approval of PSD2 in 2016, annual funding raised by European Economic Area PayTech firms increased by roughly 5.8 per cent, while the number of funding rounds rose by about 90.8 per cent, indicating that regulatory change helped to attract additional venture capital to the sector (Cáceres et al., 2025). Evidence based on micro-data for Spanish fintech firms similarly shows that payment-focused providers improved their performance relative to other fintechs after the introduction of open banking, with gains driven mainly by higher revenues and a shift from bank debt towards more stable equity financing (Banco de España, 2025). Market analyses also highlight that the European fintech market has expanded substantially over the past decade, with digital payments and PayTech among the fastest-growing segments (Fine, 2024; Verified Market Research, 2025). Together, these findings underscore the role of PSD2 as a catalyst for increased financing and enhanced firm performance within the European fintech ecosystem.

Viewed through the lens of entrepreneurial ecosystems, PSD2 illustrates how institutional frameworks can influence several ecosystem domains at the same time and thereby stimulate innovation and new venture creation. Regulation on its own does not automatically generate entrepreneurial activity; however, when supportive policies operate alongside robust technological infrastructure, available risk capital and specialised human capital, they can create highly favourable conditions for the emergence of innovative startups (Autio et al., 2018; Stam, 2015). In this case, the regulatory opening of financial data created a new market space for third-party providers, mandatory APIs supplied a common technological infrastructure, and growing investor interest ensured the financial resources required to scale new firms (Cáceres et al., 2025; European Commission, 2017).

The fintech sector has expanded rapidly across Europe, reflecting the deepening convergence between financial services and digital technologies. Fintech startups now offer a wide range of

services, including mobile payments, digital wallets, personal financial management tools and automated investment platforms, which rely heavily on cloud computing, data analytics and API-based connectivity (Alt et al., 2018; Gomber et al., 2017). One widely cited example of European fintech growth is Revolut, founded in 2015, which evolved from a relatively simple currency exchange and payments application into a multi-service digital financial platform offering current accounts, cryptocurrency trading, budgeting tools and cross-border payment services (Gomber et al., 2017; Mambu, 2022). The company’s rapid growth illustrates how fintech firms can leverage both digital platforms and the opportunities created by regulatory change to develop scalable business models within the European Single Market.

Figure 11: How PSD2 Supported Fintech Development in the European Entrepreneurial Ecosystem



Source: Based on European Commission (2017); Zachariadis & Özcan (2017); Cáceres et al. (2025).

Figure 3 summarises the mechanism through which PSD2 contributed to fintech development by opening access to financial data, enabling new digital services and supporting wider ecosystem growth.

The development trajectories of PayTech firms such as Revolut also underline the importance of other ecosystem domains, particularly human capital, networks and support systems. Fintech firms typically require substantial investment in software development, cyber-security and regulatory compliance, which heightens the importance of access to specialised skills in software engineering, data science and financial regulation (Alt et al., 2018; Gomber et al., 2017). In response, major European hubs such as Amsterdam and Berlin, and to some extent London, have developed dedicated fintech accelerators, incubators and innovation hubs that connect startups with investors, mentors and corporate partners (KPMG, 2022). At the same time, the availability of venture capital and corporate partnership programmes has encouraged collaboration between established financial institutions and technology-based firms, allowing banks to modernise their digital services while enabling startups to access existing financial infrastructures and regulatory expertise (Deloitte, 2024; Gomber et al., 2017).

Despite these opportunities, the expansion of open banking and fintech innovation raises important regulatory challenges. Questions related to data protection, cyber-security and consumer rights require continual attention to ensure that financial innovation does not undermine financial stability or public trust (Digital Frontiers Institute, 2019; European Commission, 2023b). European institutions have therefore continued to refine the regulatory framework for open banking, for instance through supervisory guidance on strong customer authentication, data security and liability allocation, and are now preparing a move towards a

broadier ‘open finance’ framework extending data access to additional financial products (European Commission, 2023b; European Fintech Association, 2023). This iterative regulatory process shows how ecosystem-level experimentation and feedback can inform subsequent policy design.

Overall, PSD2 demonstrates how regulatory innovation can act as a catalyst for integrated entrepreneurial ecosystem development. By reshaping the policy framework, establishing a common digital infrastructure, attracting additional financing into PayTech and stimulating specialised human capital, networks and support systems, the directive has created conditions for the emergence and scaling of technology-driven financial services firms across Europe (Cáceres et al., 2025; European Commission, 2017). This case therefore provides concrete support for the argument that the effectiveness of entrepreneurial ecosystems depends less on isolated support mechanisms and more on the coordinated interaction of multiple domains (Spigel & Stam, 2018; Stam, 2015).

Discussion

The analysis presented in this study provides several insights into the functioning and evolution of entrepreneurial ecosystems within the European context. By examining both the structural domains of the ecosystem and the example of regulatory innovation in the fintech sector, the paper demonstrates how entrepreneurial activity emerges from the interaction between institutional, technological and socio-economic factors. The findings reinforce the view that entrepreneurial ecosystems operate as complex systems in which multiple actors and institutions interact to support innovation and venture creation (Autio et al., 2018; Spigel & Stam, 2018; Stam, 2015).

A first important observation concerns the systemic nature of entrepreneurial ecosystems. The conceptual framework developed in this study highlights that entrepreneurial activity rarely results from isolated factors. Instead, entrepreneurship develops through the interaction of several interconnected domains, including entrepreneurial culture, human capital, networks, infrastructure, financial resources and policy frameworks. Each of these domains contributes specific resources and capabilities, but it is the coordination among them that ultimately determines the effectiveness of the ecosystem.

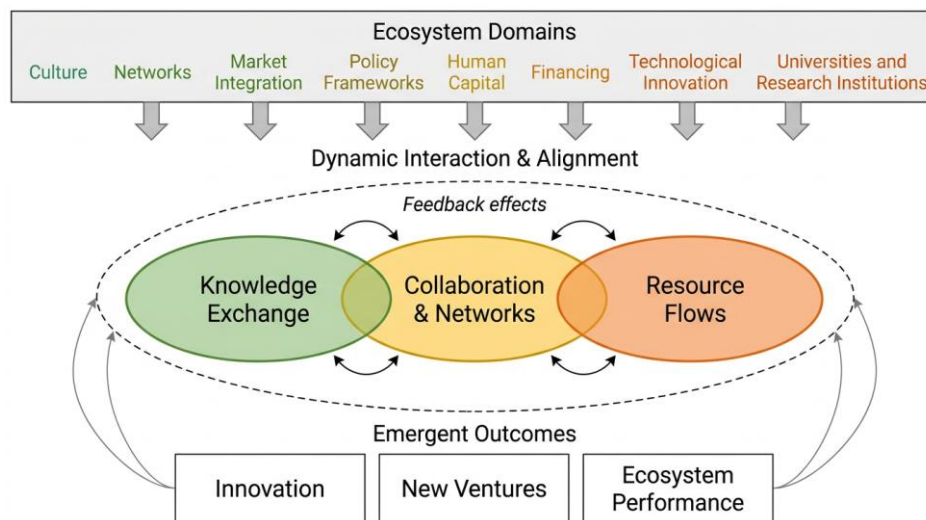
Figure 3 presents a conceptual, non-hierarchical model of the integration and dynamic interaction among key entrepreneurial ecosystem domains. Rather than suggesting relative importance, the figure highlights that ecosystem performance emerges from the interplay between domains such as policy frameworks, human capital, networks, financing and infrastructure. The strength and alignment of these interactions shape the overall effectiveness of the ecosystem.

Within the European Union, the development of entrepreneurial ecosystems is also shaped by multi-level governance structures. Unlike national innovation systems that operate primarily within the boundaries of a single country, the European entrepreneurial ecosystem functions across several institutional layers. Regional innovation clusters, national economic policies and supranational European initiatives interact simultaneously to shape entrepreneurial opportunities. Programmes such as Horizon Europe, Erasmus+ and the European Innovation Council demonstrate how European institutions contribute to strengthening research collaboration, human capital development and innovation capacity across member states (European Commission, 2024). While this multi-level governance structure creates

opportunities for knowledge exchange and cross-border entrepreneurship, it also introduces challenges related to policy coordination and regulatory alignment.

Another important dimension highlighted by the analysis is the growing role of digital transformation in shaping entrepreneurial ecosystems. Technological developments in fields such as artificial intelligence, blockchain and big data analytics have expanded the range of opportunities available to entrepreneurs. These technologies enable startups to develop new products and services while also transforming traditional industries. Digital platforms allow firms to scale rapidly and access global markets with relatively limited physical infrastructure. Consequently, the ability of ecosystems to support digital innovation has become an increasingly important determinant of regional competitiveness (Autio et al., 2018; Nambisan et al., 2019). Table 1 summarises the key ecosystem domains and highlights their respective functions and contributions to entrepreneurial activity.

Figure 12: Conceptual representation of the integration and dynamic interaction of entrepreneurial ecosystem domains.



Source: Authors' elaboration based on Stam (2015); Spigel & Stam (2018).

As shown in Table 1, each domain contributes distinct resources and capabilities; however, their combined interaction is essential for the effective functioning of entrepreneurial ecosystems. This systemic interaction becomes particularly visible in the case of regulatory innovation within highly regulated sectors. The case of PSD2 further illustrates how regulatory change can stimulate entrepreneurial activity. By enabling open banking and facilitating access to financial data, PSD2 created new opportunities for fintech startups to develop innovative financial services. This example demonstrates that regulation does not necessarily constrain entrepreneurial activity; when appropriately designed, regulatory reforms can stimulate innovation and encourage the entry of new firms into established industries (Gomber et al., 2018; Zachariadis & Ozcan, 2017).

Table 2: Key ecosystem domains and their contribution to entrepreneurial activity

Domain	Key Function	Contribution to Entrepreneurial Activity
Policy Frameworks	Regulation, incentives, governance structures	Enable market entry, reduce uncertainty, and support innovation through favourable conditions

Human Capital	Education, skills, and knowledge creation	Provides the capabilities necessary for innovation and venture development
Networks	Collaboration among firms, universities, investors	Facilitate knowledge exchange, partnerships, and access to resources
Financing	Access to capital (venture capital, funding instruments)	Enables startup creation, scaling, and technological development
Infrastructure	Digital and physical infrastructure	Supports business operations, scalability, and access to markets

Source: Authors' elaboration based on Stam (2015); Spigel & Stam (2018)

At the same time, the PSD2 case highlights the importance of institutional trust and regulatory oversight in maintaining the stability of financial ecosystems. The expansion of digital financial services raises important challenges related to cybersecurity, data privacy and consumer protection. Policymakers must therefore balance the promotion of technological innovation with the need to ensure financial stability and protect consumers (Gomber et al., 2018). Effective regulatory frameworks should therefore enable experimentation and innovation while maintaining safeguards that preserve trust in financial systems.

The analysis also emphasises the significance of human capital and knowledge institutions within entrepreneurial ecosystems. Universities and research institutions play a critical role not only in generating scientific knowledge but also in developing the skills required for innovation-driven entrepreneurship. Educational programmes in engineering, computer science and data science provide the technical capabilities necessary for the development of digital technologies and advanced innovation. At the same time, entrepreneurship education programmes encourage students to explore opportunities for venture creation and technological innovation (Ratten, 2020; Stam, 2015).

Another important implication concerns the role of collaborative networks within entrepreneurial ecosystems. Networks facilitate the exchange of knowledge, resources and expertise among entrepreneurs, investors and research institutions, enabling entrepreneurs to access mentorship, financial capital and strategic partnerships that support venture development (Spigel, 2017). Cities such as Berlin and Stockholm illustrate how strong entrepreneurial networks can contribute to the emergence of globally competitive startup ecosystems.

The importance of networks becomes particularly evident in innovation-driven industries such as fintech, biotechnology and artificial intelligence. In these sectors, rapid technological change requires close collaboration between researchers, entrepreneurs and investors. Entrepreneurial ecosystems that support such collaboration are more likely to generate high-growth startups and attract international investment (Spigel, 2017).

Finally, the findings of this study emphasise the importance of ecosystem integration as a key determinant of entrepreneurial success. The presence of individual ecosystem components does not automatically guarantee entrepreneurial development. Instead, successful ecosystems depend on the effective coordination of cultural, institutional, technological and financial elements. When these domains interact in a complementary manner, they create an environment in which entrepreneurs can identify opportunities, mobilise resources and develop innovative solutions (Spigel & Stam, 2018; Stam, 2015).

Overall, the European entrepreneurial ecosystem demonstrates the potential of integrated innovation systems to support entrepreneurship and technological development. At the same time, the analysis suggests that further efforts are needed to strengthen policy coordination,

support digital innovation and improve access to financing for startups. Addressing these challenges will enable policymakers and ecosystem actors to enhance the capacity of European entrepreneurial ecosystems to generate sustainable economic growth and innovation.

Contribution to the Literature

This study contributes to the growing literature on entrepreneurial ecosystems by providing a conceptual analysis of the structural domains that shape the European entrepreneurial environment and by illustrating how regulatory innovation interacts with these domains to support entrepreneurial activity. Although previous research has examined the components of entrepreneurial ecosystems extensively (Spigel & Stam, 2018; Stam, 2015), less attention has been devoted to understanding how regulatory reforms influence ecosystem dynamics and create new opportunities for entrepreneurial innovation.

First, the paper contributes to the theoretical understanding of entrepreneurial ecosystems by integrating insights from ecosystem literature with the specific institutional context of the European Union. Building on the framework proposed by Stam (2015) and further developed by Spigel and Stam (2018), the study identifies key domains that characterise the European entrepreneurial ecosystem, including entrepreneurial culture, human capital, networks, infrastructure, policy frameworks and financing mechanisms. By analysing these domains collectively, the paper emphasises the importance of systemic interaction between ecosystem components, highlighting that entrepreneurial outcomes depend not only on the presence of individual elements but also on the way they operate together within an institutional environment (Audretsch & Belitski, 2017).

Second, the study highlights the role of regulatory innovation as an important driver of entrepreneurial ecosystem development. While ecosystem research frequently emphasises the importance of networks, knowledge institutions and financial resources, regulatory frameworks are often treated as relatively static background conditions. The analysis presented in this paper demonstrates that regulatory reforms can actively shape entrepreneurial opportunities by altering market structures and reducing barriers to entry. The case of the PSD2 illustrates how regulatory initiatives can facilitate the emergence of new technology-based industries such as fintech and encourage the development of digital financial services (Gomber et al., 2018).

Third, the paper contributes to the discussion on policy coordination within multi-level innovation systems. The European entrepreneurial ecosystem operates within a complex institutional structure that includes regional innovation clusters, national economic policies and supranational European initiatives. Programmes such as Horizon Europe and Erasmus+ demonstrate how European institutions support research collaboration, human capital development and innovation capacity across member states (European Commission, 2024). By analysing the interaction between these institutional layers, the study highlights the importance of coordinated policy frameworks in strengthening entrepreneurial ecosystems.

Overall, the paper contributes to entrepreneurship research by demonstrating how the integration of ecosystem domains and regulatory innovation can enhance the capacity of entrepreneurial ecosystems to generate technological innovation and sustainable economic growth.

Conclusion

Entrepreneurial ecosystems have become an important analytical framework for understanding how institutional environments shape entrepreneurial activity, innovation and economic development. Rather than focusing exclusively on individual entrepreneurs or firms, the ecosystem perspective emphasises the broader network of actors, institutions and resources that collectively influence the creation and growth of new firms. This study examined the structure of the European entrepreneurial ecosystem by analysing its core domains and exploring how their interaction supports entrepreneurial development.

The analysis shows that entrepreneurial ecosystems consist of multiple interconnected domains, including entrepreneurial culture, human capital, networks, infrastructure, universities and research institutions, policy frameworks, financing mechanisms and support systems. Each of these domains contributes specific resources and capabilities that support entrepreneurial activity. However, the findings indicate that the effectiveness of entrepreneurial ecosystems depends primarily on the integration and coordination of these domains rather than on the presence of individual components alone. When these elements operate in a complementary manner, they create an environment that enables entrepreneurs to identify opportunities, mobilise resources and develop innovative firms.

The examination of regulatory innovation through the case of the PSD2 further illustrates how policy frameworks can shape entrepreneurial opportunities within the European entrepreneurial ecosystem. By enabling open banking and increasing competition in the financial services sector, PSD2 has created favourable conditions for the emergence of new fintech firms and digital financial services. This example demonstrates that well-designed regulatory reforms can function as catalysts for entrepreneurial innovation by lowering barriers to entry and encouraging technological experimentation.

From a policy perspective, the findings suggest that strengthening entrepreneurial ecosystems requires coordinated efforts across multiple institutional domains. Policymakers should focus not only on supporting startups directly but also on improving the broader ecosystem conditions that enable entrepreneurial activity. This includes investing in human capital development, strengthening research and innovation infrastructure, improving access to financing and fostering collaboration between universities, firms and government institutions.

Finally, the study highlights several directions for future research. Further empirical studies could examine how different configurations of ecosystem domains influence entrepreneurial outcomes across European regions. Comparative analyses of entrepreneurial ecosystems in different institutional contexts could also provide deeper insights into the mechanisms that support innovation-driven entrepreneurship. Continued research in this area will contribute to a better understanding of how entrepreneurial ecosystems evolve and how they can be strengthened to support sustainable economic growth and technological innovation.

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References

- Acs, Z. J., Autio, E., & Szerb, L. (2014). National systems of entrepreneurship: Measurement issues and policy implications. *Small Business Economics*, 42(3), 476–501. <https://doi.org/10.2139/ssrn.2008160>
- Alt, R., Beck, R., & Smits, M. T. (2018). FinTech and the transformation of the financial industry. *Electronic Markets*, 28(3), 235–243. <https://doi.org/10.1007/s12525-018-0310-9>
- Audretsch, D. B., & Belitski, M. (2017). Entrepreneurial ecosystems in cities: Establishing the framework conditions. *Journal of Technology Transfer*, 42(5), 1030–1051. <https://doi.org/10.1007/s10961-016-9473-8>
- Audretsch, D. B., Belitski, M., & Cherkas, N. (2021). Entrepreneurial ecosystems in cities: The role of institutions. *PLOS ONE*, 16(3), e0247609. <https://doi.org/10.1371/journal.pone.0247609>
- Audretsch, D. B., & Lehmann, E. E. (2005). Does the knowledge spillover theory of entrepreneurship hold for regions? *Research Policy*, 34(8), 1191–1202. <https://doi.org/10.1016/j.respol.2005.03.012>
- Autio, E., Nambisan, S., Thomas, L., & Wright, M. (2018). Digital affordances, spatial affordances and the genesis of entrepreneurial ecosystems. *Strategic Entrepreneurship Journal*, 12(1), 72–95. <https://doi.org/10.1002/sej.1266>
- Banco de España. (2025). *The effects of open banking on fintech providers* (Working paper). Banco de España.
- Brown, R., & Mason, C. (2017). Looking inside the spiky bits: A critical review and conceptualisation of entrepreneurial ecosystems. *Small Business Economics*, 49(1), 11–30. <https://doi.org/10.1007/s11187-017-9865-7>
- Cáceres, N., Calzada, J., Duch-Brown, N. and Martínez-Santos, F. (2025), Has PSD2 Favoured Investments in the European PayTech Companies, JRC Digital Economy Working Paper 2025-04, Joint Research Centre JRC141896.
- Cohen, S., Fehder, D. C., Hochberg, Y. V., & Murray, F. (2019). The design of startup accelerators. *Research Policy*, 48(7), 1781–1797. <https://doi.org/10.1016/j.respol.2019.04.003>
- Corley, K. G., & Gioia, D. A. (2011). Building theory about theory building: What constitutes a theoretical contribution? *Academy of Management Review*, 36(1), 12–32. <https://doi.org/10.5465/amr.2009.0486>
- Cumming, D., & Johan, S. (2017). *Venture capital and private equity contracting: An international perspective* (2nd ed.). Academic Press.
- Deloitte. (2024). *PSD2 review: Status of the EU payments market*. Deloitte.
- Digital Frontiers Institute. (2019). How the EU’s PSD2 open banking regulations could shape global digital finance. Digital Frontiers Institute.
- Etzkowitz, H. (2003). Research groups as ‘quasi-firms’: The invention of the entrepreneurial university. *Research Policy*, 32(1), 109–121. [https://doi.org/10.1016/S0048-7333\(02\)00009-4](https://doi.org/10.1016/S0048-7333(02)00009-4)
- Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: From national systems and “Mode 2” to a triple helix of university–industry–government relations. *Research Policy*, 29(2), 109–123. [https://doi.org/10.1016/S0048-7333\(99\)00055-4](https://doi.org/10.1016/S0048-7333(99)00055-4)
- European Central Bank. (2018). *The revised Payment Services Directive (PSD2)*. European Central Bank.
- European Commission. (2017, November 25). *Payment Services Directive (PSD2): Regulatory technical standards on strong customer authentication and common and secure communication* (MEMO-17-4961). European Commission.
- European Commission. (2023a). *Single market strategy and EU entrepreneurship policy*. European Commission. https://commission.europa.eu/topics/single-market_en
- European Commission. (2023b). *Revised rules on payment services (PSD2/PSD3): Questions and answers* (QANDA-23-3544). European Commission.
- European Commission. (2024). *Horizon Europe: The EU research and innovation framework programme*. European Commission. https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en
- European Fintech Association. (2023). *Revised PSD2 position paper*. European Fintech Association.
- Fine. (2024). *Current EU landscape of fintech investment*. Fintech Network Europe.
- Fredin, S., & Lidén, A. (2020). Entrepreneurial ecosystems: Towards a systemic approach to entrepreneurship? *Geografisk Tidsskrift – Danish Journal of Geography*, 120(2), 87–97. <https://doi.org/10.1080/00167223.2020.1769491>
- Fritsch, M., & Wyrwich, M. (2018). Regional knowledge, entrepreneurial culture, and innovative startups over time and space—An empirical investigation. *Small Business Economics*, 51(2), 337–353. <https://doi.org/10.1007/s11187-018-0016-6>

- Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2017). On the fintech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems*, 35(1), 220–265. <https://doi.org/10.1080/07421222.2018.1440766>
- Gomber, P., Koch, J. A., & Siering, M. (2018). Digital finance and fintech: Current research and future research directions. *Journal of Business Economics*, 87(5), 537–580. <https://doi.org/10.1007/s11573-017-0852-x>
- Guerrero, M., Urbano, D., Cunningham, J., & Organ, D. (2014). Entrepreneurial universities in two European regions: A case study comparison. *Journal of Technology Transfer*, 39(3), 415–434. <https://doi.org/10.1007/s10961-012-9287-2>
- Isenberg, D. (2011). *The entrepreneurship ecosystem strategy as a new paradigm for economic policy*. Babson Entrepreneurship Ecosystem Project.
- Jaakkola, E. (2020). Designing conceptual articles: Four approaches. *AMS Review*, 10(1–2), 18–26. <https://doi.org/10.1007/s13162-020-00161-0>
- Komlósi, É. (2025). Is a balanced entrepreneurial ecosystem essential for success? *The Journal of Technology Transfer*. <https://doi.org/10.1007/s10961-024-10149-8>
- KPMG. (2022). *Europe's number one payments and e-money fintech hub?* KPMG Netherlands.
- Lerner, J., & Nanda, R. (2020). Venture capital's role in financing innovation: What we know and how much we still need to learn. *Journal of Economic Perspectives*, 34(3), 237–261. <https://doi.org/10.1257/jep.34.3.237>
- Mambu. (2022). *PSD1, PSD2, PSD3: 15 years of EU legislation in a nutshell*. Mambu.
- Mason, C. M., & Harrison, R. T. (2016). Business angel investment activity in the financial crisis: UK evidence and policy implications. *Environment and Planning C: Government and Policy*, 34(1), 43–60. <https://doi.org/10.1068/c12324b>
- Moore, J. F. (1993). Predators and prey: A new ecology of competition. *Harvard Business Review*, 71(3), 75–86.
- Nambisan, S., Wright, M., & Feldman, M. (2019). The digital transformation of innovation and entrepreneurship: Progress, challenges and key themes. *Research Policy*, 48(8), 103773. <https://doi.org/10.1016/j.respol.2019.03.018>
- OECD. (2021). *Continuing education and training in Germany*. OECD Publishing. <https://doi.org/10.1787/1f552468-en>
- Pauwels, C., Clarysse, B., Wright, M., & Van Hove, J. (2016). Understanding a new generation incubation model: The accelerator. *Technovation*, 50–51, 13–24. <https://doi.org/10.1016/j.technovation.2015.09.003>
- Ratten, V. (2020). *Entrepreneurship and the innovation ecosystem*. Routledge.
- Scherngell, T., & Barber, M. J. (2009). Spatial interaction modelling of cross-region R&D collaborations: Empirical evidence from the 5th EU Framework Programme. *Papers in Regional Science*, 88(3), 531–547. <https://doi.org/10.1111/j.1435-5957.2008.00215.x>
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217–226. <https://doi.org/10.5465/amr.2000.2791611>
- Spigel, B. (2017). The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice*, 41(1), 49–72. <https://doi.org/10.1111/etap.12167>
- Spigel, B., & Stam, E. (2018). *Entrepreneurial ecosystems*. in R Blackburn, D De Clercq & J Heinonen (eds), SAGE Handbook of Entrepreneurship and Small Business., 21, SAGE Publications, London. <https://doi.org/10.4135/9781473984080.n21>
- Startup Genome. (2021). *The global startup ecosystem report 2021*. Startup Genome.
- Stam, E. (2014). *The Dutch entrepreneurial ecosystem*. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.2473475>
- Stam, E. (2015). Entrepreneurial ecosystems and regional policy: A sympathetic critique. *European Planning Studies*, 23(9), 1759–1769. <https://doi.org/10.1080/09654313.2015.1061484>
- Stam, E. (2022). Entrepreneurial ecosystems: Theory and practice. *Small Business Economics*, 58(1), 407–419. <https://doi.org/10.1007/s11187-021-00563-0>
- Stam, E., & Bosma, N. (2015). Local policies for high-growth firms. In D. B. Audretsch, A. N. Link, & M. L. Walshok (Eds.), *The Oxford handbook of local competitiveness* (pp. 286–305). Oxford University Press.
- Stevenson, H. H., & Jarillo-Mossi, J. C. (1986). Preserving entrepreneurship as companies grow. *Journal of Business Strategy*, 7(1), 10–23. <https://doi.org/10.1108/eb039138>
- Tapscott, D., & Tapscott, A. (2018). *Blockchain revolution: How the technology behind Bitcoin and other cryptocurrencies is changing the world*. Penguin Random House.

- Tansley, A. G. (1935). The use and abuse of vegetational concepts and terms. *Ecology*, 16(3), 284–307. <https://doi.org/10.2307/1930070>
- Thomas, L., & Autio, E. (2020). Innovation ecosystems. In S. Nambisan, K. Lyytinen, A. Majchrzak, & M. Song (Eds.), *Handbook of digital innovation* (pp. 204–228). Edward Elgar Publishing. <https://doi.org/10.2139/ssrn.3476925>
- Verified Market Research. (2025). *Europe fintech market size, share and forecast to 2032*. Verified Market Research.
- Zachariadis, M., & Ozcan, P. (2017). The API economy and digital transformation in financial services. *SWIFT Institute Working Paper*. <https://doi.org/10.2139/ssrn.2975199>
- Wennekers, S., Thurik, R., van Stel, A., & Noorderhaven, N. (2007). Uncertainty avoidance and the rate of business ownership across 21 OECD countries, 1976–2004. *Journal of Evolutionary Economics*, 17(2), 133–160. <https://doi.org/10.1007/s00191-006-0045-1>
- Wright, M., Clarysse, B., Mustar, P., & Lockett, A. (2007). *Academic entrepreneurship in Europe*. Edward Elgar Publishing.

FINANCIAL REPORTING EDUCATION IN ALBANIA: A JEAN MONNET APPROACH

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Abstract

In the context of Albania's EU integration process, the modernization of financial education has become a key priority, particularly in aligning academic curricula with European standards and labor market demands. This paper explores the role of the Jean Monnet Module FIN-BRIDGE in enhancing financial reporting education through a practice-oriented and student-centered approach.

Implemented at the University of Elbasan, the module integrates EU financial reporting frameworks—such as IFRS, sustainability reporting, and digital finance—into an applied learning model that combines theory with real-world practice. The study is primarily based on a qualitative and exploratory analysis of students participating in the first implementation cycle (March–July 2026), focusing on their learning experience, skill development, and perceived readiness for the labor market.

The findings indicate that interactive teaching methodologies, including case studies, group work, and the Financial Clinic, significantly enhance students' practical competencies, critical thinking, and engagement. Students reported improved understanding of financial reporting standards and greater confidence in applying knowledge in real-life business contexts. Moreover, the inclusion of contemporary topics such as artificial intelligence, ESG reporting, and EU regulatory compliance reflects the evolving requirements of the financial sector.

The paper argues that experiential learning models, particularly those embedded in Jean Monnet initiatives, offer an effective pathway for bridging the gap between academia and practice. It concludes that such approaches contribute to strengthening financial education in Albania and support the preparation of students for integration into the European labor market.

Keywords: Financial Reporting Education, Jean Monnet Module, Student-Centered Learning, Experiential Learning, EU Standards; Albania

1. Introduction

The transformation of higher education systems in candidate countries for European Union membership requires continuous adaptation to European educational and professional standards. In Albania, financial reporting education has traditionally focused on theoretical concepts, while employers increasingly seek graduates capable of applying financial reporting principles in real-world business environments.

The growing complexity of financial reporting frameworks, the expansion of sustainability reporting requirements, and the digitalization of financial services have further emphasized the need for modern teaching methodologies. Universities are therefore challenged to provide learning environments that combine theoretical foundations with practical experiences.

To address these challenges, the Jean Monnet Module FIN-BRIDGE (Bridging the Gap: Empowering Students for Practical Financial Reporting in Albanian Businesses) was developed at Aleksandër Xhuvani University. The module aims to strengthen students' practical competencies while introducing them to European financial reporting standards and contemporary developments in finance and accounting.

This paper investigates how the implementation of the FIN-BRIDGE module contributes to improving students' knowledge, practical skills, and employability.

2. Literature Review

2.1 Financial Reporting Education in Higher Education

Financial reporting education is a fundamental component of accounting and finance programs, as it equips students with the knowledge and competencies required to prepare, interpret, and analyze financial information in accordance with professional standards. In an increasingly globalized economy, higher education institutions face growing pressure to align their curricula with international financial reporting frameworks and labor market requirements (Albrecht & Sack, 2000).

Traditional teaching methods in accounting and finance have historically relied on lecture-based instruction, emphasizing the transmission of theoretical concepts and technical knowledge. While these approaches provide a necessary foundation, researchers have argued that they often fail to develop higher-order cognitive skills, critical thinking, and practical problem-solving abilities required in contemporary professional environments (Boyce, Williams, Kelly, & Yee, 2001). Employers increasingly seek graduates who can apply theoretical knowledge to complex business situations, interpret financial data, and make informed decisions under conditions of uncertainty (Jackling & De Lange, 2009).

Recent educational research advocates for student-centered pedagogies that actively engage learners in the educational process. Active learning strategies, including case studies, collaborative projects, simulations, and problem-based learning, have demonstrated positive effects on students' understanding of accounting concepts and their ability to transfer knowledge to real-world situations (Cottell & Millis, 1993). According to Freeman et al. (2014), active learning significantly improves student performance and retention across various disciplines, including business and finance education.

The integration of International Financial Reporting Standards (IFRS) into higher education has further emphasized the need for innovative teaching methodologies. As financial reporting becomes increasingly complex due to globalization, sustainability reporting requirements, and digital transformation, universities must prepare students to navigate dynamic regulatory environments and emerging financial technologies (Howieson, 2003).

2.2 Experiential Learning and Employability

Experiential learning has become one of the most influential pedagogical approaches in contemporary higher education. The theoretical foundation of experiential learning is largely attributed to Kolb (1984), who defined learning as a process whereby knowledge is created through the transformation of experience. According to Kolb's Experiential Learning Theory (ELT), effective learning occurs through a cyclical process involving concrete experience, reflective observation, abstract conceptualization, and active experimentation.

Within accounting and finance education, experiential learning activities provide students with opportunities to apply theoretical concepts to realistic professional contexts. These activities may include business simulations, internships, consulting projects, case analyses, and interactions with industry professionals (Kolb & Kolb, 2005). Such experiences enable students to bridge the gap between classroom knowledge and workplace expectations while developing practical competencies and professional confidence.

The relationship between experiential learning and employability has attracted considerable attention in educational research. Yorke (2006) defines employability as a set of achievements, skills, understandings, and personal attributes that make graduates more likely to gain employment and succeed in their chosen occupations. Employers consistently identify communication skills, analytical thinking, teamwork, adaptability, and problem-solving as essential competencies for graduates entering the labor market (Andrews & Higson, 2008).

In response to these expectations, European higher education institutions increasingly incorporate practical and work-integrated learning experiences into their curricula. Studies have shown that students participating in experiential learning programs report higher levels of engagement, motivation, and preparedness for professional careers compared to those exposed solely to traditional instructional methods (Jackson, 2015). Consequently, experiential learning has become a strategic tool for enhancing graduate employability and supporting the transition from higher education to professional practice.

2.3 The Role of Jean Monnet Modules

Jean Monnet Actions, funded under the Erasmus+ Programme of the European Union, aim to promote excellence in teaching and research on European Union studies worldwide. Since their establishment in 1989, Jean Monnet initiatives have supported universities in integrating European perspectives into academic curricula and fostering dialogue between academia, policymakers, and civil society (European Commission, 2024).

Jean Monnet Modules are designed to introduce innovative teaching approaches while strengthening knowledge and awareness of European integration processes. These initiatives encourage interdisciplinary learning and facilitate the incorporation of EU policies, legislation, and regulatory frameworks into higher education programs (European Commission, 2023). For countries aspiring to deeper integration with the European Union, such as Albania, Jean Monnet projects represent important instruments for curriculum modernization and capacity building.

Within the fields of accounting and finance, Jean Monnet Modules contribute to the dissemination of European financial reporting frameworks, corporate governance principles, sustainability reporting standards, and digital finance developments. They also support the adoption of innovative pedagogical methods that emphasize practical application, critical thinking, and student engagement (EHEA, 2020).

The FIN-BRIDGE Module aligns with these objectives by introducing students to European financial reporting standards, sustainability requirements, and contemporary developments in digital finance while simultaneously promoting experiential learning through practical activities and the Financial Clinic model. Through this approach, the module contributes not only to improving students' technical knowledge but also to strengthening their understanding of the European dimension of financial reporting and professional practice.

The FIN-BRIDGE (Bridging the Gap: Empowering Students for Practical Financial Reporting in Albanian Businesses) Module was developed within the Erasmus+ Jean Monnet framework with the objective of strengthening students' knowledge and practical competencies in financial reporting while promoting the integration of European Union standards and best practices into higher education curricula.

Implemented at the Faculty of Business and Law of Aleksandër Xhuvani University, the module responds to the growing need for finance and accounting graduates who possess both theoretical knowledge and practical skills relevant to contemporary business environments. The initiative seeks to bridge the gap between academic learning and professional practice through a student-centered and experiential learning approach.

The module is structured around six interconnected thematic areas:

- European Financial Reporting Standards (IFRS)
- Green Accounting and Sustainability Reporting
- Financial Reporting in Albanian Businesses
- Digitalization and Technology in Finance
- Case Studies and Practical Applications
- Financial Clinic Activities

In addition to the theoretical component, the module incorporates interactive teaching methodologies such as workshops, group projects, classroom discussions, case-study analysis, and problem-solving exercises. These methods encourage active student participation and facilitate the application of theoretical concepts to real-world situations.

A distinctive feature of the FIN-BRIDGE module is the Financial Clinic concept, which aims to create stronger links between the university and the business community. Through this initiative, students are gradually introduced to practical financial reporting challenges and consultancy-oriented activities that simulate real professional environments. The Financial Clinic is expected to enhance students' analytical abilities, communication skills, and professional preparedness while supporting local businesses through knowledge transfer and academic expertise.

Furthermore, the module incorporates contemporary topics such as sustainability reporting, environmental disclosure, digital transformation, and artificial intelligence in financial reporting, ensuring that students are exposed to emerging developments within the European financial and regulatory landscape.

4. Research Methodology

4.1 Research Design

This study adopts a qualitative and exploratory research design to examine the educational impact of the FIN-BRIDGE Module on students participating in its first implementation cycle. A qualitative approach was considered appropriate because the study focuses on understanding students' experiences, perceptions, and learning outcomes rather than measuring predefined quantitative variables.

4.2 Sample

The research focuses on students enrolled in the first implementation cycle of the FIN-BRIDGE Module during the 2025–2026 academic year at Aleksandër Xhuvani University. The participants consisted of undergraduate and graduate students attending courses related to finance, accounting, and business administration.

The sample was selected through purposive sampling, as all participants were directly involved in the educational activities of the module and therefore represented the most relevant group for evaluating its effectiveness.

4.3 Data Collection

Data was collected using multiple sources in order to enhance the credibility and validity of the findings.

The primary sources of data included:

- Student feedback questionnaires administered after selected learning activities;
- Classroom observations conducted during lectures, workshops, and case-study sessions;
- Evaluation of student learning outcomes through assignments, presentations, and practical exercises;
- Informal reflections and discussions collected during classroom interactions and project activities.

The use of multiple data sources allowed for triangulation and provided a broader understanding of the learning experience.

4.4 Data Analysis

The collected data were analyzed using thematic analysis. Responses were reviewed and categorized into key themes related to the objectives of the study.

The analysis focused on four main dimensions:

- Knowledge acquisition and understanding of EU financial reporting standards;
- Development of practical and analytical skills;
- Student engagement and participation in learning activities;
- Perceived preparedness for future employment and professional practice.

The thematic analysis enabled the identification of recurring patterns and perceptions among participants, providing insights into the effectiveness of the FIN-BRIDGE educational approach.

4.5 Research Limitations

As an exploratory study, the research is subject to certain limitations. The findings are based on a single implementation cycle and a relatively limited number of participants. Furthermore, the study relies primarily on qualitative data and student perceptions. Future research may complement these findings through quantitative assessment methods and longitudinal analysis to evaluate the long-term impact of the module on student employability and professional development.

5. Findings and Discussion

5.1 Improved Understanding of Financial Reporting Standards

The findings indicate that participation in the FIN-BRIDGE Module contributed significantly to students' understanding of European financial reporting frameworks. Students demonstrated increased familiarity with International Financial Reporting Standards (IFRS), sustainability reporting principles, and the regulatory environment governing financial reporting within the European Union.

Feedback collected during the implementation cycle revealed that practical examples and case-based discussions facilitated a deeper understanding of concepts that had previously been perceived as abstract and difficult to apply. Students particularly valued the comparative analysis between Albanian and EU financial reporting frameworks, which enabled them to better understand the challenges and opportunities associated with European integration.

Table 1. Student Perceptions of Learning Outcomes

Learning Outcome	Agree/Strongly Agree (%)
Improved understanding of IFRS and EU financial reporting standards	89%

Better ability to apply theoretical knowledge in practice	86%
Improved analytical and problem-solving skills	84%
Increased engagement through case studies and group work	91%
Greater confidence regarding future employment opportunities	83%
Better understanding of sustainability and digital finance topics	88%

These findings are consistent with previous studies emphasizing that active learning approaches improve students' comprehension and retention of complex accounting and finance concepts (Freeman et al., 2014).

5.2 Development of Practical Competencies

One of the most significant outcomes of the FIN-BRIDGE Module was the development of practical competencies relevant to contemporary financial reporting practices. Through case studies, group assignments, practical exercises, and activities associated with the Financial Clinic concept, students were encouraged to apply theoretical knowledge to realistic business situations.

As a result, participants reported improvements in their ability to:

- Interpret and analyze financial statements;
- Assess reporting requirements under different regulatory frameworks;
- Apply accounting and financial reporting standards to practical cases;

Formulate and communicate professional recommendations.

The findings support the arguments of Kolb (1984), who emphasized that learning becomes more effective when students actively engage in practical experiences. By moving beyond traditional lecture-based instruction, the module enabled students to develop analytical and problem-solving skills that are highly valued in professional environments.

5.3 Increased Student Engagement

The introduction of interactive teaching methodologies generated higher levels of student engagement and participation compared to traditional teaching approaches. Classroom observations indicated that students were more actively involved during workshops, discussions, and case-study sessions than during conventional lectures.

Students expressed greater motivation when working on real-world business scenarios, collaborative projects, and practical assignments. The opportunity to discuss current issues such as sustainability reporting, artificial intelligence in finance, and digital transformation further increased their interest in the subject matter.

These results reinforce previous research suggesting that student-centered learning environments enhance motivation, participation, and academic performance (Boyce et al., 2001; Kolb & Kolb, 2005).

5.4 Employability and Professional Preparedness

A recurring theme identified throughout the study was the perceived impact of the module on employability and career readiness. Participants reported increased confidence regarding their future professional opportunities and expressed a stronger understanding of the competencies required in contemporary finance and accounting professions.

Exposure to European financial reporting standards, sustainability reporting requirements, and digital finance developments contributed to students' perception that they were better prepared to operate in both national and international labor markets. Furthermore, the practical orientation of the module helped students understand how theoretical knowledge can be applied in professional settings.

These findings align with the literature on graduate employability, which highlights the importance of integrating practical experiences into higher education curricula in order to facilitate the transition from university to employment (Yorke, 2006; Andrews & Higson, 2008).

Discussion

The results suggest that the FIN-BRIDGE Module successfully addresses one of the major challenges facing higher education in finance and accounting: the disconnect between theoretical instruction and practical application. Through the integration of experiential learning methodologies and EU-oriented content, the module provides a more comprehensive learning experience that supports both academic achievement and professional development. The findings demonstrate that students benefit not only from acquiring technical knowledge but also from developing practical competencies, critical thinking abilities, and professional confidence. The incorporation of contemporary topics such as sustainability reporting, digital finance, and artificial intelligence further enhances the relevance of the curriculum in an evolving economic environment.

Overall, the study confirms that Jean Monnet Modules can serve as effective instruments for modernizing higher education, strengthening the European dimension in university curricula, and improving graduate preparedness for the labor market.

6. Implications for Higher Education in Albania

The findings of this study have important implications for the future development of higher education in Albania, particularly in the fields of finance, accounting, and business studies. As Albania continues its path toward European integration, universities are increasingly expected to align their educational programs with European standards while responding to the evolving needs of the labor market.

The results indicate that experiential and student-centered learning approaches can significantly enhance the effectiveness of financial education. The FIN-BRIDGE Module demonstrates that the integration of practical activities, case studies, collaborative learning, and business-oriented projects can improve both academic outcomes and professional preparedness. These findings support the growing international consensus that higher education should move beyond traditional knowledge transmission and focus on the development of practical competencies and transferable skills.

Furthermore, the module illustrates how European-funded educational initiatives can contribute to curriculum modernization and institutional innovation. Through the incorporation of European financial reporting standards, sustainability reporting requirements, digital finance topics, and emerging technologies, the module strengthens the European dimension of higher education and promotes alignment with contemporary professional practices.

A particularly valuable element of the FIN-BRIDGE approach is the Financial Clinic model, which creates opportunities for collaboration between universities and local businesses. Such initiatives facilitate knowledge transfer, expose students to real-world challenges, and strengthen relationships between academia and industry. The experience gained through the implementation of FIN-BRIDGE suggests that similar models could be replicated by other higher education institutions in Albania and the Western Balkans.

Overall, the study highlights the potential of Jean Monnet initiatives to support educational reform, internationalization, and capacity building within higher education systems. By fostering innovation in teaching and learning, these initiatives contribute to the preparation of graduates who are better equipped to operate in increasingly competitive and Europeanized labor markets.

7. Conclusions

This paper examined the contribution of the Jean Monnet Module FIN-BRIDGE to the enhancement of financial reporting education in Albania. The study was motivated by the need to address the persistent gap between theoretical instruction and practical application in finance and accounting education, while simultaneously strengthening the integration of European Union standards within university curricula.

The findings suggest that the FIN-BRIDGE Module has successfully introduced an innovative educational model that combines European financial reporting frameworks with experiential learning methodologies. Through the use of interactive teaching approaches, case studies, practical assignments, and Financial Clinic activities, students demonstrated improved understanding of financial reporting standards, stronger analytical skills, greater engagement, and increased confidence regarding future employment opportunities.

The study further confirms the importance of student-centered learning environments in promoting deeper understanding, active participation, and professional skill development. Exposure to contemporary topics such as sustainability reporting, digital finance, artificial intelligence, and EU regulatory frameworks contributed to the relevance and attractiveness of the learning experience.

From a broader perspective, the FIN-BRIDGE Module illustrates how Jean Monnet initiatives can support the modernization of higher education institutions in candidate countries by strengthening the European dimension of teaching and fostering closer connections between academia and professional practice. The experience of the University of Elbasan demonstrates that integrating practical and EU-oriented content into finance education can contribute significantly to improving graduate employability and academic quality.

Future research should expand upon these findings by incorporating quantitative assessment methods, larger samples, and longitudinal analysis to evaluate the long-term impact of the module on student performance, career development, and labor market outcomes. Such research would provide further evidence regarding the effectiveness of experiential learning approaches in financial education and their contribution to higher education reform in Albania and beyond.

References

- Albrecht, W. S., & Sack, R. J. (2000). *Accounting education: Charting the course through a perilous future*. American Accounting Association.
- Andrews, J., & Higson, H. (2008). Graduate employability, 'soft skills' versus 'hard' business knowledge: A European study. *Higher Education in Europe*, 33(4), 411–422. <https://doi.org/10.1080/03797720802522627>
- Boyce, G., Williams, S., Kelly, A., & Yee, H. (2001). Fostering deep and elaborative learning and generic (soft) skill development: The strategic use of case studies in accounting education. *Accounting Education*, 10(1), 37–60. <https://doi.org/10.1080/09639280121889>
- Cottell, P. G., & Millis, B. J. (1993). Cooperative learning in accounting. *Journal of Accounting Education*, 11(2), 149–164. [https://doi.org/10.1016/0748-5751\(93\)90037-E](https://doi.org/10.1016/0748-5751(93)90037-E)
- European Commission. (2023). *Jean Monnet actions in higher education*. European Commission. <https://erasmus-plus.ec.europa.eu>
- European Commission. (2024). *Erasmus+ programme guide 2024*. Publications Office of the European Union. <https://erasmus-plus.ec.europa.eu/programme-guide>
- European Higher Education Area (EHEA). (2020). *Rome ministerial communiqué*. European Higher Education Area. <http://www.ehea.info>
- Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences*, 111(23), 8410–8415. <https://doi.org/10.1073/pnas.1319030111>
- Howieson, B. (2003). Accounting practice in the new millennium: Is accounting education ready to meet the challenge? *The British Accounting Review*, 35(2), 69–103. [https://doi.org/10.1016/S0890-8389\(03\)00004-0](https://doi.org/10.1016/S0890-8389(03)00004-0)

- International Accounting Standards Board (IASB). (2024). International Financial Reporting Standards (IFRS). IFRS Foundation. <https://www.ifrs.org>*
- Jackson, D. (2015). Employability skill development in work-integrated learning: Barriers and best practice. Studies in Higher Education, 40(2), 350–367. <https://doi.org/10.1080/03075079.2013.842221>*
- Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Prentice Hall.*
- Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. Academy of Management Learning & Education, 4(2), 193–212. <https://doi.org/10.5465/amle.2005.17268566>*
- Yorke, M. (2006). Employability in higher education: What it is – What it is not. Higher Education Academy.*
- World Economic Forum. (2023). The future of jobs report 2023. World Economic Forum. <https://www.weforum.org/reports/the-future-of-jobs-report-2023>*

E-COMMERCE AND THE ECONOMY OF ONLINE TRADE IN ALBANIA

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Abstract

This study examines the development and dynamics of e-commerce in Albania, with a particular focus on its role in transforming the structure of trade and consumer behavior. Adopting a descriptive and analytical approach, the paper explores the key drivers behind the expansion of online commerce, including the diffusion of digital technologies, increased internet penetration, and the broader effects of globalization. Special attention is given to the structural shift in business operations, as firms increasingly transition from traditional models to digitally enabled platforms. The study further assesses the economic implications of e-commerce, highlighting its contribution to improved market efficiency, the expansion of opportunities for small and medium-sized enterprises, and the intensification of competition at both domestic and international levels.

In conclusion, the paper argues that e-commerce represents a strategic component for Albania’s economic development. It underscores the importance of supportive policies and targeted investments in digital infrastructure and literacy, aiming to enhance sustainability and facilitate deeper integration into global markets.

Keywords: E-commerce, Digital Economy, Consumer Behaviour, Market Efficiency, Albania

Introduction

The rapid development of information and communication technologies has significantly transformed the way economic activities are conducted, making e-commerce a key component of the digital economy. E-commerce refers to the process of buying and selling products and services through computer networks, primarily the internet, supported by a wide range of technologies such as electronic payments, mobile commerce, online marketing, supply chain management, and electronic data interchange systems. In this context, Chodak, G. (2024) defines e-commerce as a transformative process aimed at increasing value for the consumer through the integration of technologies and new paradigms of the digital economy.

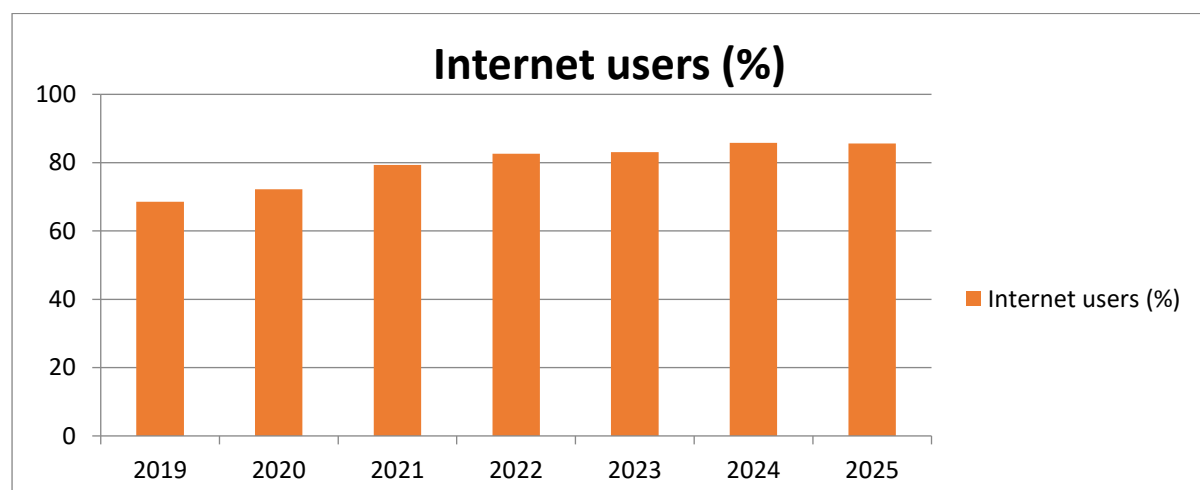
In the contemporary literature, Radilsky and Cognella (2015) emphasize that e-commerce has become an essential element of the global economy, enabling the exchange of products, services, and information via the internet, while also contributing to increased efficiency and reduced operational costs for businesses. Similarly, Martin Kutz (2016) describes e-commerce as an economic exchange process between individuals and organizations, supported by the extensive use of information technologies and a globally standardized infrastructure. According to Chaffey and Chadwick (2016), e-commerce includes not only financial

transactions but also informational exchanges and communication between organizations and third parties, including customer service and other supporting business processes. This highlights that e-commerce extends beyond simple online sales, encompassing a wide range of organizational activities within the digital environment. Likewise, Schneider (2017) stresses that e-commerce is not limited to online purchasing but also includes business-to-business relationships and internal organizational processes such as planning and resource management. From a broader perspective, Laudon and Traver (2021) define e-commerce as digitally enabled transactions between organizations and individuals, involving the exchange of value for products and services through the internet and mobile platforms. This definition highlights the central role of digital technologies in facilitating trade and expanding global economic boundaries.

This paper aims to analyze the role and impact of e-commerce on the online trade economy in Albania, focusing on its contribution to economic development, market expansion, and changes in consumer behavior, as well as identifying the main challenges that limit its development. The main problem addressed relates to the still relatively low level of e-commerce development in Albania, mainly influenced by limited trust in online payments and insufficient logistical infrastructure. Existing literature shows that e-commerce contributes to increased economic efficiency and business competitiveness, while developing countries face significant challenges in its full adoption. The methodology used in this study is based on a qualitative and quantitative approach, combining a review of academic literature with secondary data from institutional and statistical sources, as well as comparative analysis to assess Albania's position in relation to global trends. The findings indicate that, despite continuous growth, e-commerce in Albania is still in a developing stage but has strong potential to contribute to economic growth if existing barriers are addressed and digital infrastructure is improved.

E-commerce in Albania.

E-commerce in Albania has experienced gradual development in recent years, mainly driven by the increasing access to the internet and the widespread use of mobile devices. According to digital development reports and available data, internet penetration in the country is estimated at over 70%, indicating a broad base of potential users for e-commerce services.

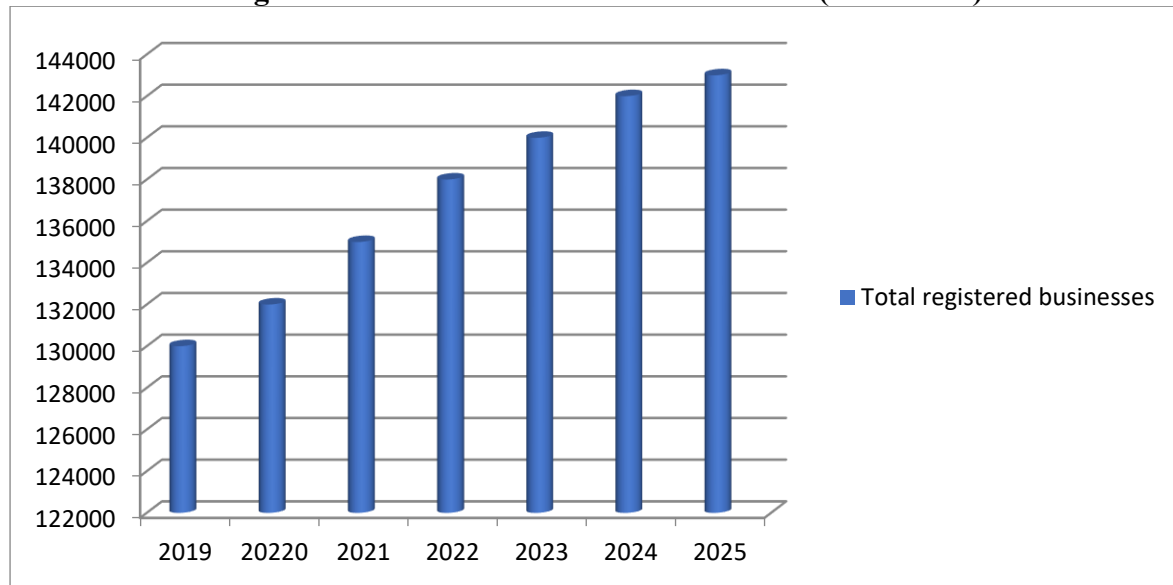


Source: DataReportal – *Digital 2019-2025: Albania*.

During the period 2019–2025, Albania has recorded a steady increase in internet usage, rising from approximately 68.6% in 2019 to over 85% in 2024–2025. This growth represents a significant digital transformation, which has directly influenced the development of e-

commerce and the online trade economy. The most pronounced increase was observed during the 2020–2021 period, closely linked to the COVID-19 pandemic, when both consumers and businesses were forced to shift toward digital platforms for purchasing, payments, and service delivery. Following this period, growth has stabilized, indicating that the market has reached a certain level of digital maturity. In the years 2023–2025, internet penetration has stabilized at around 85%, suggesting that Albania has reached an advanced stage of internet adoption, where further growth is slower and mainly dependent on rural areas and population groups with more limited technological access.

Figure 2: Number of Businesses in Albania (2019–2025)



Source: Instat

Table 1: Development of Online Activity in Albania (2019–2025).

Year	Total registered businesses	Businesses with online activity
2019	~130,000	~ 5–8%
2020	~132,000	~10–15%
2021	~135,000	~18–22%
2022	~138,000	~25–30%
2023	~140,000	~30–38%
2024	~142,000	~40–45%
2025	~143,000+	~45–50%

Source: Instat

During the period 2019–2025, the total number of registered businesses in Albania has shown moderate growth, while the most significant transformation has been observed in the way they operate. An increasingly large share of businesses has shifted from traditional models to digitally integrated ones, using online platforms, social media, and websites for sales and marketing activities. In 2019, e-commerce activity was still limited and represented a small segment of the market. However, after 2020, as a result of the COVID-19 pandemic, businesses were forced to adopt digital channels, accelerating their online transformation. In the years 2023–2025, a steady increase in businesses operating online has been observed, reaching approximately 40–50% of commercial activity in various digital forms. This trend indicates a gradual transition toward a more digitalized economy that is increasingly oriented toward e-commerce.

Furthermore, the high use of social media relative to the active online population has significantly contributed to the growth of local businesses, which increasingly utilize these platforms for marketing and sales activities. However, compared to European Union countries, e-commerce in Albania is still in an early stage of development. According to Eurostat data, around 70–75% of EU citizens regularly engage in online shopping, whereas in Albania this percentage is significantly lower, reflecting a clear gap in the level of digital trade adoption.

Another important aspect is the payment structure. In Albania, cash on delivery continues to dominate online trade, accounting for a large share of transactions. This contrasts sharply with EU countries, where electronic payments via bank cards and digital systems represent the primary method of e-commerce transactions. This difference is closely related to the lower level of trust in digital financial systems and the still limited use of online banking in Albania.

In terms of consumer behavior, regional studies show that Albanian consumers often demonstrate hesitation toward online shopping due to lack of experience, uncertainty regarding product quality, and concerns about potential online fraud. This social and psychological factor directly affects the pace of e-commerce adoption in the country. On the other hand, logistical infrastructure represents a significant challenge for the development of this sector. Although private delivery companies have made notable improvements, limitations still exist in delivery speed, territorial coverage, and transportation costs, especially in rural areas. These shortcomings negatively affect the consumer experience and the competitiveness of online businesses.

Despite these challenges, e-commerce in Albania presents considerable potential for further development. The increasing use of digital banking, the expansion of electronic payment services, and the growing involvement of businesses in online platforms are expected to accelerate the development of this sector. If these trends are accompanied by increased consumer trust and improvements in logistical infrastructure, e-commerce could become an important pillar of the Albanian digital economy.

Table 2: Use of Online Sales Platforms in Albania (2019–2025)

Year	Social Media (Instagram/Facebook Shops)	Website & E-commerce Stores	Marketplaces (local/international)
2019	20%	10%	5%
2020	35%	18%	10%
2021	50%	25%	15%
2022	60%	30%	20%
2023	70%	40%	25%
2024	78%	50%	30%
2025	80%	55%	35%

During the period 2019–2025, Albania has experienced a noticeable transformation in the use of online sales platforms. Initially, e-commerce activity was largely limited to the use of social media platforms such as Instagram and Facebook, which functioned as informal sales channels. After 2020, as a result of the COVID-19 pandemic, a significant increase in the use of digital platforms was observed, including websites and more structured e-commerce systems. Businesses began to invest more in their online presence and in the development of digital stores. In recent years (2023–2025), the market has become more consolidated, with a balance emerging between the use of social networks, professional e-commerce websites, and marketplaces. This reflects a gradual transition toward a more structured and organized e-commerce ecosystem in Albania.

Advantages and Disadvantages of E-commerce.

E-commerce (electronic commerce) represents one of the most significant structural transformations in the contemporary economy, reshaping market operations, business models,

and consumer behavior. The rapid development of digital technologies, the widespread adoption of the internet, and the increasing use of mobile devices have significantly contributed to the global and local expansion of this sector.

Table 3: Comparative Table of Advantages and Disadvantages of E-commerce

Advantages	Description	Disadvantages	Description
Global reach	Enables selling and purchasing without geographical limitations	Security risks	Online fraud and exposure of personal data
Convenience	24/7 access from any location	Lack of physical product interaction	Consumers cannot physically examine products before purchase
Cost efficiency	Reduced operational costs for businesses	Logistical challenges	Delivery delays and complex return management
Automation & efficiency	Digitalized sales and marketing processes	Technological dependency	Requires stable internet and functional systems
Data analytics	Enables personalized marketing and better decision-making	Digital divide	Unequal access to digital technologies among users

Source : Author

Advantages of E-commerce.

One of the most important benefits of e-commerce is the global market reach, which enables businesses to operate beyond geographical boundaries without requiring a physical presence in different markets. This significantly increases market potential and facilitates business expansion and diversification. Another key advantage is accessibility and convenience for consumers, who are able to make purchases 24/7 from any location. This eliminates time and space constraints associated with traditional retail systems and enhances the overall customer experience. E-commerce also contributes to cost efficiency for businesses, as it reduces expenses related to physical stores, large inventories, and extensive operational staff. Additionally, digital platforms allow for the automation of sales, marketing, and customer service processes, improving overall operational efficiency. Another significant benefit is the use of data analytics, which enables businesses to better understand consumer behavior, preferences, and purchasing patterns. This facilitates personalized marketing strategies and improves decision-making processes.

Disadvantages of E-commerce.

Despite its advantages, e-commerce also presents several limitations. One of the most critical challenges is cybersecurity risk, including online fraud, data breaches, and unauthorized access to sensitive financial and personal information, which can negatively affect consumer trust. Another disadvantage is the lack of physical interaction with products, which may lead to uncertainty regarding product quality, size, or functionality. This can influence consumer decision-making, particularly for products that require physical inspection before purchase. Furthermore, e-commerce faces logistical and operational challenges, such as delivery delays, shipping costs, and the complexity of managing product returns, all of which can affect customer satisfaction. Finally, the issue of the digital divide remains relevant, as not all population groups have equal access to the internet or sufficient digital literacy skills to fully engage in online commerce.

The Role of Technology in the Development of Online Trade in Albania (Last 5 Years).

During the last five years, Albania has experienced a significant growth in e-commerce, mainly driven by improvements in digital infrastructure, increased internet penetration, and the expansion of electronic financial services. This transformation has been further accelerated by the COVID-19 pandemic, which changed consumer behavior and increased trust in online shopping.

1. Expansion of Internet Access and Digitalization

One of the key factors has been the increase in internet accessibility and the widespread use of mobile devices. Today, a large proportion of the population uses the internet and smartphones for daily activities, including online shopping. This has created a broad user base for e-commerce platforms and has facilitated the transition from traditional retail to digital commerce.

2. Development of E-commerce Platforms and Online Businesses

In Albania, there has been a noticeable increase in businesses operating online, as well as a gradual professionalization of the sector. The entry of international platforms and the adoption of digital models by local businesses have improved sales and distribution processes. At the same time, many companies have started using websites, social media, and online stores as their main sales channels.

3. Digital Payments and Fintech Development

A very important impact has come from the development of digital payment systems and online banking. The increased use of bank cards, mobile banking applications, and fintech services has enabled faster and more secure online transactions. This has increased consumer trust in online shopping, although the use of cash is still dominant in some segments of society.

4. Artificial Intelligence and Automation

In recent years, businesses in Albania have gradually started adopting elements of artificial intelligence, such as personalized recommendations, customer behavior analysis, and customer service automation. These technologies help increase sales efficiency and improve user experience, making e-commerce more competitive and effective.

5. Growth of Mobile Commerce (M-commerce)

The use of smartphones has been one of the most important drivers of e-commerce growth in Albania. Many consumers make purchases through mobile applications and social media platforms, making online trade more accessible and faster. This trend is especially strong among younger generations, who prefer digital solutions over physical shopping.

In summary, technology has played a crucial role in the development of online trade in Albania over the last five years. Improvements in digital infrastructure, the growth of electronic payments, the adoption of artificial intelligence, and the widespread use of mobile devices have created a more modern and competitive e-commerce ecosystem. However, challenges such as consumer trust and the limited use of digital payments remain important issues for the further development of the sector.

Conclusions

This study analyzes the development of e-commerce in Albania during the period 2019–2025, highlighting the gradual transformation of market structures and the increasing role of digital technologies in economic activity. The findings indicate that Albania has experienced a

significant rise in internet usage and online platforms, which has directly contributed to the expansion of e-commerce and the modernization of business sales models. However, despite this progress, e-commerce remains at a developing stage compared to European Union countries, mainly due to the low level of electronic payment adoption, the dominance of cash-on-delivery transactions, and limitations in logistical infrastructure. The study also shows that Albanian consumer behavior is still characterized by moderate trust in online shopping, which affects the pace of full e-commerce adoption. Overall, e-commerce in Albania represents a growing sector with strong potential, gradually consolidating its role as an important component of the digital economy.

Recommendations

To accelerate the development of e-commerce in Albania, coordinated measures are required in several key areas.

- First, it is necessary to strengthen the electronic payment infrastructure by expanding the use of digital banking, bank cards, and secure online payment systems in order to increase consumer trust.
- Second, investment in logistics infrastructure should be prioritized to improve delivery efficiency, reduce shipping times, and ensure better coverage of rural areas.
- Third, digital awareness and consumer education campaigns should be developed to enhance trust and encourage greater use of online platforms. In addition, businesses should be encouraged to invest in digital transformation by adopting advanced technologies such as data analytics and automation to improve customer service and operational efficiency.

Overall, the combination of these measures would contribute to the development of a more sustainable e-commerce ecosystem and strengthen its role in the Albanian economy.

References

1. Institute of Statistics – INSTAT, (2026). “Usage of Information and Communication Technologies in Enterprises”.
2. Institute of Statistics – INSTAT, (2026). “Information and Communication Technologies (ICT) usage in Households and by Individuals”, Tirana, Albania.
3. Chodak, G. (2024). Measuring the Impact of E-Commerce on the Economy. In: *The Future of E-commerce*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-55225-0_1 Albania 2020”, Washington DC.
4. Cassia, F., & Magno, F. (2022). Cross-border e-commerce as a foreign market entry mode among SMEs: The relationship between export capabilities and performance. *Review of International Business and Strategy*, 32(2), 267–283.
5. Pan, L., Fu, X., & Li, Y. (2022). SME participation in cross-border e-commerce as an entry mode to foreign markets: A driver of innovation or not? *Electronic Commerce Research*, 1–30.
6. Chodak, G. (2020). The problem of shelf-warmers in electronic commerce: A proposed solution. *Information Systems and e-Business Management*, 18(2), 259–280.
7. Zumstein, D., Oswald, C., & Brauer, C. (2022). Development of E-commerce in times of the corona crisis. In *International Conferences e-Society 2022* (pp. 115–122).
8. Laudon K. & Traver C. (2021). “E-commerce 2020-2021. Business, Technology, Society”, Global edition, sixteenth edition, pp 45-50, Pearson Education Limited, Essex, United Kingdom,
9. Wahba, P. (2021, January 7). A record 12,200 U.S. stores closed in 2020 as e-commerce, pandemic changed retail forever.
10. Electronic and Postal Communications Authority – AKEP. (2021). “Publication-Statistics 2021”.
11. Ahmedov, I. (2020). The impact of digital economy on international trade. *European Journal of Business and Management Research*, 5(4).
12. Anuj, K., Fayaz, F., & Kapoor, N. (2018). Impact of e-commerce in Indian economy. *Journal of Business and Management*, 20(5), 59–71.

13. Argilés-Bosch, J. M., Somoza, A., Ravenda, D., & García-Blandón, J. (2020). An empirical examination of the influence of e-commerce on tax avoidance in Europe. *Journal of International Accounting, Auditing and Taxation*, 41, 100339.
14. United Nations Report. (2020). Key Statistics and Trends in International Trade 2020, United Nations Conference on Trade and Development UNCTAD.
15. Yang, Y., Gong, Y., Land, L. P. W., & Chesney, T. (2020). Understanding the effects of physical experience and information integration on consumer use of online to offline commerce. *International Journal of Information Management*, 51, 102046.
16. Bank of Albania, (2020). “National Payments Strategy”, <https://www.bankofalbania.org>
17. World Bank. (2020) “Albania E-Commerce Diagnostic. Leveraging the Digital Trade Opportunity”, Washington DC, Internet:
18. World Bank. (2020). “Enterprise Surveys Follow-Up on Covid-19. What Businesses Experience - Albania 2020”, Washington DC, Internet: <http://www.enterprisesurveys>.
19. Government of Albania. (2020). “Law no. 55/2020 On Payment Services”, Tirana, Albania
20. Chafey D. (2017). “Digital Business and e-commerce Management-Strategy, Implementation and Practice”, sixth edition, Pearson Education Limited, Essex, United Kingdom, pp. 4-7
21. Schneider G. (2017). “Electronic Commerce”, twelfth edition, pp 5-9, CENGAGE Learning, Boston; MA, USA
22. Chaffey D. & Chadwick F. (2016). “Digital Marketing”, sixth edition, Pearson Education Limited, Essex, United Kingdom, 2016, pp. 22-25
23. Dutta Baller, S. & Lanvin, B. (2016): “The Global Information Technology Report 2016: Innovating in the Digital Economy”, World economic forum, Geneva, www.weforum.org/gitr.
24. Kutz M. (2016). “Introduction to E-Commerce. Combining Business and Information Technology”, Bookbon, pp. 20-22
25. Radilsky Z. (2015). “Business Models for E-Commerce”, Cognella Academic Publishing, California State University, 2015, pp. 2
26. <https://datareportal.com/reports/digital-2026-albania>.
27. <https://www.instat.gov.al>

THE HISTORICAL DEVELOPMENT OF ALBANIAN MEDICINE: A DEMOGRAPHIC AND STATISTICAL PERSPECTIVE

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ABSTRACT

This paper presents a comprehensive overview of the historical development of medicine in Albania from the Illyrian period to the contemporary era. The study emphasizes the demographic and statistical aspects of healthcare evolution, highlighting the role of population dynamics, migration, and institutional growth. By integrating historical analysis with demographic perspectives, the paper provides insights into how socio-political transformations shaped the Albanian medical system.

Keywords: Albania, Medical History, Demography, Health System, Statistical Perspective

INTRODUCTION

The history of Albanian medicine reflects the broader social, cultural, and demographic transformations of the region. From ancient herbal practices to modern public health systems, the development of healthcare in Albania has been closely tied to population dynamics, migration patterns, and institutional changes. This study adopts a demographic and statistical perspective to analyze key periods in Albanian medical history, providing a framework for understanding the evolution of health services in the country.

METHODOLOGY

This study is based on a narrative historical analysis supported by demographic data from historical records, census data, and secondary literature. Statistical elements are included to illustrate population growth, the establishment of healthcare institutions, and the distribution of medical personnel across different periods. This approach allows for a comprehensive understanding of the interplay between demographic trends and medical developments.

THE ILLYRIAN PERIOD – ANCIENT MEDICAL PRACTICES

The roots of Albanian medicine trace back to the Illyrian tribes, among the oldest populations of the Balkans. King Gentius, the last Illyrian ruler, is historically noted for his knowledge of medicinal plants and natural remedies. Medical practices were closely linked to nature, herbal knowledge, and oral tradition. Women played a key role in transmitting healthcare knowledge within communities.

THE MEDIEVAL ERA – THE ROLE OF THE CATHOLIC CHURCH

During the Medieval period, despite political difficulties, medicine continued to survive and develop, largely thanks to the Catholic Church. Franciscan and Benedictine monasteries in Albania were not only religious centers but also places of care, where medical knowledge was practiced based on Latin texts, empirical observation, and the use of medicinal herbs. Some clerics studied abroad and brought back advanced knowledge of the time. Notable figures include Father Luigi Maria Monti, who played a key role in organizing healthcare during difficult periods.

THE OTTOMAN PERIOD (15TH – 19TH Century)

With the arrival of the Ottoman Empire in the 15th century, Albanian medicine entered a new phase. New medical concepts were introduced, influenced by Arab-Islamic traditions, including urban pharmacies (attari), thermal baths and hammams, and the dissemination of medical texts translated from Arabic. In many Albanian cities, charitable institutions like hospitals (“darüşşifa”) existed, although healthcare access remained limited. Folk practitioners, often called “hoxhë” or “plakë”, also became prominent, applying traditional remedies and local knowledge.

NATIONAL AWAKENING AND INDEPENDENCE (19TH - 20TH Century)

During the Albanian National Awakening (Rilindja Kombëtare), awareness of public health increased. Key figures such as Dr. Osman Jonuzi, Dr. Frederik Shiroka, and Luigj Gurakuqi contributed not only to medical science but also to the organization of the national healthcare system. After independence in 1912, the first modern hospitals and health centers were established. In 1929, the Civil Hospital of Tirana was opened, and in 1930, the first Nursing School began functioning.

THE COMMUNIST ERA (1945 – 1990)

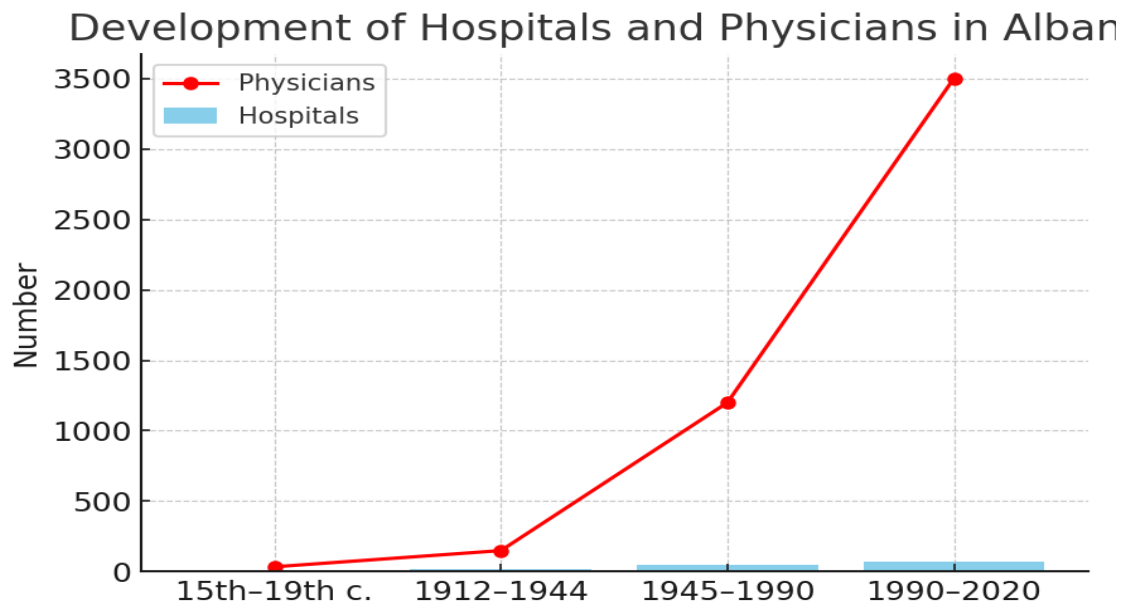
During the communist period, Albanian medicine was organized centrally and provided free to all citizens. Hospitals were built in every major city, specialized clinics and National Public Health Centers were established. In 1957, the Faculty of Medicine at the University of Tirana was founded, becoming the main center for medical education. Population statistics from this era show a significant expansion in healthcare infrastructure and medical personnel per capita.

POST 1990 – HEALTH REFORMS AND DEMOGRAPHIC TRANSITION

After the 1990s, Albania transitioned to a market economy. The healthcare system faced challenges such as migration of medical personnel, decentralization, and need for modernization. Demographic changes, including urbanization and population decline in rural areas, influenced healthcare planning. Statistical trends show both opportunities and challenges in aligning healthcare services with the population’s needs.

NARRATIVE STATISTICAL ANALYSIS

To illustrate demographic trends, the following graph shows the development of healthcare institutions and medical personnel across centuries. (See figure below.)



- DISCUSSION

Albanian medical history demonstrates a continuous adaptation to social, political, and demographic changes. Population growth, migration, and urbanization have always influenced healthcare development. By integrating historical analysis with demographic perspectives, we see the interplay between population needs and the evolution of medical institutions.

- CONCLUSIONS

The development of Albanian medicine reflects the resilience and adaptability of the nation. Understanding historical patterns through a demographic lens provides insights into current healthcare challenges and opportunities. This interdisciplinary approach strengthens both historical scholarship and practical planning for future medical policies.

REFERENCES

- Xhufi, Pëllumb. *Histori e Shqipërisë: Nga lashtësia deri në ditët tona*. Tiranë: Dituria, 2008.
- Isufi, Arben. *Mjekësia Popullore Shqiptare*. Tiranë: Akademia e Shkencave e Shqipërisë, 2013.
- Kondo, Xhemal. *Historia e Mjekësisë në Shqipëri*. Tiranë: Shtëpia Botuese e Shkencave, 2010.
- Kokalari, Dhimitër. *Shqipëria dhe Iliria në periudhën antike*. Tiranë: Shtëpia Botuese 55, 2005.
- Stojanov, Jovan. *Mjekësia në lashtësinë e Ballkanit*. Beograd: Akademia e Shkencave, 2001.
- Shuteriqi, Dhimitër. **Shkrimtarët Shqiptarë**. Tiranë: Toena, 1984.
- Frashëri, Kristo. **Historia e qytetërimit shqiptar**. Tiranë: Akademia e Shkencave, 2008.
- Elsie, Robert. **Historical Dictionary of Albania**. Scarecrow Press, 2010.
- Zamputi, Injac. **Dokumente për historinë e Shqipërisë**. Tiranë: Universiteti i Tiranës, 1963.
- Gjeçovi, Shtjefën. **Kanuni i Lekë Dukagjinit**. Shkodër: Françeskanët, 1933.
- Anamali, Skënder & Prifti, Kristaq (red.). *"Historia e Popullit Shqiptar", Vëllimi I*. Tiranë: Akademia e Shkencave, 2002.
- Pëllumb Xhufi. "Mjekësia dhe mjekët në Shqipërinë mesjetare", në: "Studime Historike", nr. 2, 2001, f. 34–48.
- G. Valentini. *"Il Diritto consuetudinario delle montagne dell'Albania del Nord"*. Roma: 1956.
- Durham, Edith. *"High Albania"*. London: Edward Arnold, 1909.

- Arkivi Shtetëror i Dubrovnikut – kontrata mjekësh me qytetet shqiptare, shek. XIV–XV.
- Bajrami, P. (2014). “Historia e Mjekësisë në Shqipëri”; Tiranë: Shtëpia Botuese Dituria.
- Gjermani, A. (2013). “Mjekësia Popullore Shqiptare”; Tiranë: Akademia e Shkencave të Shqipërisë.
- Berisha, M. (2016). “Shqiptarët dhe Perandoria Osmane: Aspektet e Shëndetësisë dhe Mjekësisë”; Studime historike, 23(1), 45-60.
- Nishi, N. (2005). “Spitalet Osmane dhe Mjekësia në Shqipëri gjatë Periudhës Osmane”; Studime dhe Trajtim Mjekësor, 4(1), 34-42.
- Qosja, F. (1998). “Historiku i Shëndetësisë në Shqipëri dhe Zhvillimi i Institucioneve Shëndetësore gjatë Periudhës Osmane”; Tiranë: Shtëpia Botuese Dituria.
- Dajti, A. (2007). “Mjekësia dhe Shëndetësia në Shqipëri gjatë Periudhës Osmane”; Revista Historike, 4(2), 123-139.
- Buda, F. (2001). “Historia e mjekësisë në Shqipëri”. Tiranë: Shtëpia Botuese Dituria.
- Shiroka, O. (1930). “Roli i mjekësisë dhe i mjekëve në Shqipëri gjatë periudhës osmane”. Tiranë: Shtëpia Botuese Shëndeti.
- Hoxha, F. (2003). “Mjekësia shqiptare në periudhën e Rilindjes dhe pas shpalljes së Pavarësisë”. Tiranë: Shtëpia Botuese Shkenca.
- Guri, G. (2010). Shkenca dhe mjekësia gjatë periudhës osmane në Shqipëri. Shkodër: Shtëpia Botuese Buzuku.
- Khafa, M. (2012). Spitalet e Shqipërisë: Historia dhe zhvillimi i institucioneve shëndetësore. Tiranë: Shtëpia Botuese Shëndeti
- Frashëri, M. (1925). Mjekësia dhe edukimi mjekësor në Shqipërinë e Rilindjes. Shkodër: Shtëpia Botuese Shkodra
- Gega, I. (1997). Higjiena dhe mjekësia popullore shqiptare. Tiranë: Shtëpia Botuese Përparimi
- Përparimi, A. (2016). Mjekësia dhe institucione shëndetësore në Shqipërinë e pas Pavarësisë. Tiranë: Shtëpia Botuese Albas
- Jonuzi, O. (1933). Shëndetësia dhe spitalet shqiptare në periudhën e Pavarësisë. Tiranë: Shtëpia Botuese Shëndeti
- Dino, A. (1945). Rilindja dhe ndikimi i figurave shqiptare në zhvillimin e shëndetësisë. Shkodër: Shtëpia Botuese Kultura
- Stafa, Q. (2010). Pionierët e mjekësisë shqiptare dhe Spitali i Tiranës. Tiranë: Shtëpia Botuese Shkenca
- Kamberi, R. (2020). Mjekësia dhe spitalet shqiptare në shekullin XX: Nga pas shpalljes së Pavarësisë deri në vitin 1944. Tiranë: Shtëpia Botuese Përparimi..
- Buda, F. (2001). Historia e mjekësisë në Shqipëri. Tiranë: Shtëpia Botuese Dituria.
- Hoxha, F. (2003). Mjekësia shqiptare gjatë periudhës komuniste: Nga shëndeti publik në shkencën mjekësore. Tiranë: Shtëpia Botuese Shkenca
- Shiroka, O. (1992). Mjekësia dhe Shëndetësia gjatë periudhës komuniste. Tiranë: Shtëpia Botuese Shëndeti
- Dalliu, I. (1985). Shkenca mjekësore dhe arsimimi i mjekëve në Shqipëri. Tiranë: Shtëpia Botuese Shkenca
- Gega, I. (2014). Mjekësia shqiptare dhe reforma në shëndetësi pas 1990. Tiranë: Shtëpia Botuese Shkenca
- Buda, F. (2001). Historia e mjekësisë në Shqipëri. Tiranë: Shtëpia Botuese Dituria.
- Khafa, M. (2007). Institucionet shëndetësore shqiptare pas 1990-ës. Tiranë: Shtëpia Botuese Përparimi
- Shiroka, O. (2012). Mjekësia dhe shëndetësia shqiptare: Pas 1990-ës dhe integrimi me standartet ndërkombëtare. Tiranë: Shtëpia Botuese Shëndeti
- Përparimi, A. (2018). Reformat shëndetësore dhe sfidat e mjekësisë shqiptare pas 1990-ës. Tiranë: Shtëpia Botuese Albas
- Krasniqi, N. (2020). Sistemi shëndetësor shqiptar dhe integrimi me modelet europiane. Tiranë: Shtëpia Botuese EURO-Print

FIGHT AGAINST FINANCIAL- ECONOMIC CRIME, ORGANIZED CRIME

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Abstract

Based on the framework of comprehensive reforms in the judiciary⁷⁵ and changes in the constitution recently in Albania, it is aiming at defining and remodelling the judiciary and the prosecution system, in order to put an end to the flourishing of corruption in the justice system and to cut off the links between crime and politics once and for all. It is established the Specialised Structure for Anti-Corruption and Organised Crime (SPAK), comprising the Special Prosecution Office (SPO) and the National Bureau of Investigation (NBI). According to the assessments of international institutions, Albania remains one of the countries with a high risk of money laundering. According to MONEYVAL⁷⁶, Albania has been included in the grey list, which shows a high risk of money laundering in the territory of the Republic of Albania. The institutions of the European Union during integration process have always asked Albania to do more in the fight against organized crime and corruption and especially in the fight against money laundering. In the past, in Albania has shown that politicians have been able to escape from the punishment for corruption by using the details, tactics and techniques of the judicial system, cooperating with corrupted judges, and threatening the independence of the judicial power.

Albanian Government in order to fight organized crime recently has approved a Normative Act⁷⁷ which aim at fighting organised crime assets deriving from illegal activity. The article presents legal analysing on the addressing of legal and institutional measures of the government, to fight the assets deriving from organized crime, corruption, and terrorist acts. One of the legal and institutional initiatives has been called Law Enforcement Operation which was established to combat money laundering stemming from the commission of criminal activity in Albania. It is going to review weather this initiative is in line and harmony with the fundamental principles of the Rule of Law, the dominance of law and fundamental human rights and freedoms. Did it achieve the purpose for which the institution was founded? Is it still left

⁷⁵ Balla, R., “Constitutional Reform, Criminal Justice Reform in the Prevention of Organized Crime and Corruption”, Publications of the International Scientific Conference at the Faculty of Law, Tirana University, 2017, p. 368.

⁷⁶ The Committee of Experts for the Evaluation of Anti-Money Laundering and Terrorist Financing Measures - MONEYVAL is a permanent monitoring body of the Council of Europe, is entrusted with the possible tasks of compliance with the standards of terrorism and its effectiveness is assigned to them with the task of making recommendations for data and requests regarding improvements to their system. Through a dynamic process of reciprocal activities, peer review and regular follow-up of its reports, MONEYVAL aims to enable capacity companies and national authorities to complete money laundering and terrorist financing more effectively. <https://www.coe.int/en/web/moneyval> (visited on 10.03.2022).

⁷⁷ Based on the Albanian Constitution article 101 it is stipulated that: “The Council of Ministers, in case of need and urgency, under its responsibility, may issue normative acts that have the force of law, for taking temporary measures. These acts norms are immediately sent to the Assembly, which convenes within 5 days if it is not collected. These acts lose their force from the beginning, if not approved by Assembly within 45 days.” <https://www.parlament.al/Files/sKuvendi/kushtetuta.pdf> (visited on 10.03.2022).

to fight money laundering stemming from organized crime, corruption, or terrorist acts? These are the issues that the article is trying to constitutionally respond at.

Keywords: Crime and Corruption; Money Laundering; Law Enforcement Operation; Crime assets; Rule of law.

Short history

In 1989 the G7 Summit established the Financial Action Task Force⁷⁸ (FATF). The group's recommendations were signed by 26 countries and 2 international organizations, the Council of Europe, and the Persian Gulf Commission. In 1990 the Strasbourg Convention enters into force. There are established 40 recommendations which constitute international standards and have been subject to revisions in 1996 and 2003 and 9 more recommendations are added. In 1997 the MONEYVAL Committee was established pursuant to the Strasbourg Convention which covers the implementation of Money Laundering recommendations for Europe. Membership was initially signed by 27 European Union countries. In 2001, the Directorate for the Coordination of the Fight against Money Laundering and Financing of Terrorism was established in Albania. In 2005, the Directorate was named DPPPP (Albanian FIU).

Introduction

An illicit capital needs to be laundered. Stating in a simple way, the fight against money laundering is intended to prevent the "certification" of illicit capital, or to make it more costly, to impede the illicit capital to be included at civil circulation or legal circulation capital. The lower the "expenditure" of illicit capital, the greater the cost of "laundering" it. And the lower their "cost", the higher the price criminals must pay to laundering the capital. But what is the price paid by criminals for "certifying" illegally accumulated capital? This price can be expressed in currency or at risk. In fact, if money laundering becomes more difficult, the one whom launders the money will demand a greater reward, on the other hand, the criminal will be more at risk of being detected or deceived.

The main objective of the Directorate for the Prevention of Money Laundering is therefore to make money laundering as costly as possible by reducing the creation of illegal capital and increasing the possibility of detecting crimes, as well as reducing to a minimum the money laundering committed through banks and supervised intermediaries, pushing all those who launder more and more money into the financial system.

This role is exercised through a financial intelligence activity. It can be easily understood that the fight against money laundering cannot be fought by monitoring one by one all financial operations. It is needed, as we said, to find an alarm system, which is set in motion by the entities that specifically perform those actions, or banks and financial intermediaries. These entities are in fact required to cooperate with the authorities, assessing the individual and financial actions of the clientele, and sounding the alarm whenever the requested actions raise suspicion because they are "abnormal", or not common to the activity that is expected to have a client in a certain territorial area, or economic.

The findings of the Council of Europe for Albania⁷⁹, in the framework of the project "On strengthening capacities in the fight against organized crime in Southeast Europe", among other

⁷⁸ The FATF Recommendations set an international standard that countries must implement through measures tailored to their specific circumstances. The FATF standards contain their own Recommendations and Explanatory Reports.

<http://www.fatf-gafi.org/publications/fatfrecommendations/documents/fatf-recommendations.html> (visited on 10.03.2022)

⁷⁹ Progress Report for Albania 2021 from European commission https://ec.europa.eu/neighbourhood-enlargement/albania-report-2021_en pg.38 (visited on 10.03.2022).

things, state: "The main threats to Albania are organized crime related to drugs, trafficking in human beings, economic crime and corruption". Economic crime in general and criminal groups in particular that commit crimes in the financial sphere have been and continue to be a serious threat to our country and national security. The financial capacities of these groups serve not only to consolidate and expand their further operations, but also to penetrate state structures in order to provide protection from these structures and to influence decision-making in the political aspect, legislative, executive, economic or in the field of justice. Even further, the capacity of these criminal groups, financial and technical, in some cases exceeds the capacity of Albanian law enforcement agencies. In these circumstances, the fight against economic crime, especially organized crime, poses a special challenge for law enforcement agencies in the country, especially in terms of tracking, police prosecution, but also much more complex investigations, which dictate the need to use a wider range of special investigative tools, closer co-operation between domestic and international institutions, sequestration and management of seized assets, witness protection and a more efficient judicial process.

In the Republic of Albania, the fight against money laundering has begun to be recognized, but also to be regulated by domestic legislation, only in the years of democracy, ie after the '90s. During the transition period, the rules for the fight against money laundering have been strengthened, and reformulated, but they are not reviewed throughout the way they are used, they are complete, of a general legal framework. Thus, most states have adopted 40 Recommendations of the Task Forces on Financial Action⁸⁰ on Money Laundering and Terrorist Financing. These recommendations include the criminalization of Money Laundering and Terrorist Financing, the freezing and sequestration of terrorist financing, the prevention measures against Money Laundering and Terrorist Financing for financial institutions, intelligence units and international cooperation. But, according to MONEYVAL reports⁸¹ the targeted financial sanctions were not enforced, the application of the freeze of assets to all natural and legal persons was difficult.

Now, according to the latest legal amendments, reporting entities or institutions, as well as any person in the Republic of Albania, will temporarily freeze the funds or other assets of designated persons or entities, directly, as soon as they become aware of the notification. by the relevant structures of the Security Council, international organizations to which the Republic of Albania is a party, without being subject to the issuance of a temporary blocking order or the relevant decision of the Council of Ministers in accordance with legal provisions. Prior drafting the Councils of Ministers Decision on the appointment of persons whose assets should be blocked, the Minister of Finance issues a temporary order⁸² to freeze assets and other properties for a period not exceeding 45 working days, if this may be the only way to prevent the circumvention of the implementation of the measures defined by law. Legal problems with the Order of the Minister of Finance are numerous therefore, there is now a general obligation of immediate freezing which enters into force immediately, regardless of the time of issuance of the decision by the Council of Ministers. These revised measures ensure the implementation of the freezing of funds or assets without delay.

⁸⁰ All FATF Recommendations which are 40 and 9 Special Recommendations on Terrorist Financing constitute a comprehensive package of measures for an effective legal and institutional regime against money laundering and terrorist financing. United Nations Security Council Resolution 1617 (2005) and the Action Plan of United Nations General Assembly Resolution 60/288 (20 September 2006), reinforce the importance of implementing these Recommendations. <https://www.unodc.org/unodc/en/money-laundering/Instruments-Standards.html> (visited on August 21st, 2017).

⁸¹ Referring to the Progress Report December 2019, MONEYVAL Committee On Fight against Money Laundering and Terrorist Financing in Albania <https://www.coe.int/en/web/moneyval> (visited on 10.03.2022).

⁸² Balla, R., "Combating Money Laundering and Terrorist Financing, Amendments to the Law on Prevention of Money Laundering, published by the European Institute, SEE I EU Cluster of Excellence in European and International Law, Verlag Alma Mater, Saarbrücken, Germany December 2018 pg.130-135.

Regarding the Order of the Minister of Finance are numerous legal issues, despite the fact that it is now a general obligation of immediate freezing which enters into force immediately, regardless of the time of issuance of the respective Decision by the Council of Ministers. These revised measures ensure the implementation of the freezing of funds or assets without delay. Meantime, according to the above MONEYVAL report results that there is lack of mechanisms in place to identify and describe the processes for obtaining and registering information about the beneficial owner; lack of a comprehensive assessment of the associated ML/TF risks for all types of legal entities established in the country; lack of a requirement for legal entities to keep basic information and a register of shareholders or their members; The National Business Centre and the Tirana Judicial District Court are not responsible for the accuracy of the recorded data; lack of deadlines made at the request of NGOs to provide data on changes to previously submitted information, or to take reasonable steps to obtain and maintain accurate and up-to-date information for the Beneficiary Owner, while the current mechanism does not ensure that the information collected by reporting units implementing due diligence measures for the client ensures coverage of all legal entities in question; legal representatives of legal entities are not required to be residents of the country; NGOs are not required to have a person authorized to act as their representative and to provide information to the competent authorities; there is no requirement to retain the basic information and records of the Beneficiary Owners for at least 5 years after the date on which the company is dissolved or otherwise ceases to exist, the holders of the shares or the share guarantees of the holder are not prohibited and there are not measures in place to ensure that they are not misused for ML/TF; the range of sanctions that can be applied by the NBC and supervisory authorities is disproportionate and there are no sanctions imposed on associations, foundations and civil society centres that do not meet the requirements. The ability of the competent authorities to quickly ensure international co-operation on beneficial ownership information is hampered by the shortcomings identified and there is no mechanism for any formal assessment of the quality of assistance received from other countries by the Albanian authorities, other than the Police and the Anti-Money Laundering Directory.

Despite these identified deficiencies which facilitate the establishment of mechanisms for Money Laundering and Terrorist Financing, Albania has made efforts to combat money laundering⁸³ and one of the recent legal and institutional initiatives has been called as Operation Force of Law. The Council of Ministers has approved the Normative⁸⁴ Act no. 1, dated 31.01.2020 "On Preventive Measures in the Framework of Strengthening the Fight against Terrorism, Organized Crime, Serious Crimes and Consolidation of Public Order and Security". One of the justifications of the former Minister of Interior⁸⁵, has been that the judicial and legal path for the seizure of assets, or any other suspected property, such as property derived from criminal activity is very long. For this reason, based on the Strategy for the Fight Against Crime, this Normative Act has been drafted. Another initiative that should be welcomed in the fight against money laundering is the Law on Registration of Beneficiary Owners of all companies and non-profit organizations.

As mentioned above the purpose of this article is the analysis of the provisions provided by the above Normative Act, focusing on their compliance with the new amendments of

⁸³ Based on some yearly Progress reports of the European Commission for the Efficiency of Justice which was established on 18 September 2002 by Resolution Res (2002) 12 of the Committee of Ministers of the Council of Europe. https://www.coe.int/t/dghl/cooperation/cepej/presentation/cepej_en.asp. The author has been the representative of the Republic of Albania from the years 2006-2010 at CEPEJ.

⁸⁴ The Normative Act was published in the Official Journal no. 127 of 2020. <https://qbz.gov.al/alfresco/api/-default/-public/alfresco/versions/1/nodes/>. (visited on 10.03.2022).

⁸⁵ The ministry of interior was the ministry that proposed and exercised the legislative initiative for this Normative Act based on the Press Release of the ministry as per local media.

Constitution⁸⁶ and international standards. So, the thesis we seek to address is finding the right legal way to fight the assets that result from committing illegal actions. Should it be legal, for example to apply the principles of the rule of law, where the rule of law should prevail.

I. Striking the financing of terrorism

One of the aspects that would make the fight against terrorism effective is the striking on terrorist financing. In many cases there is State-sponsored international terrorism. The financing of terrorist acts is done in various ways. Thus a state can equip, train, direct and provide facilities for terrorist activity. Terrorist organizations may have sources of funding, armaments, training, and logistics from different countries. In order to strike on and prevent the financing of terrorism, many efforts have been made to raise the fight against the phenomena of terrorism to the level of international acts. One of these acts is the International Convention for the Suppression of the Financing of Terrorism (New York: 1999). This Convention provided for the punishment of securing of unlawful and voluntary accumulation of funds or financial means, directly or indirectly. Whether such acts were committed with intent to use them, or knowing that they would be used, to commit violations foreseen by the Convention, or of an act intentionally causing death or serious bodily harm to a civilian or other person, to intimidate a population, or to coerce a government or international organization.

The obligations of the States Parties members to this Convention are: To take the necessary measures, in accordance with domestic legal principles, to dictate, and to freeze, seize or confiscate funds which are used or intended to be used for the purposes of the offenses set forth in the Convention. Establish jurisdiction over anticipated violations. Punish these violations. Arrest the perpetrators, prosecute or extradite them. Collaborate on preventive and countermeasures to exchange information and evidence necessary for criminal prosecution.

The September 11th attacks have sparked a new interest at international treaties to strengthen law and order against terrorism, everywhere in the world, especially in the United States. These international acts, in order to be effective, must define terrorism, specifically, in all cases, and rely on the application of domestic law.

The European Union has also taken numerous measures against the financing of terrorism. Removing barriers across Europe has not only helped legitimate businesses but has also provided increased opportunities for financial crime and money laundering. The enlargement of the European Union and the introduction of the new access of the States means that international financial crime is taking on great proportions in the global economy⁸⁷. Stopping money against terrorists is one of the priorities of the European Counter-Terrorism Strategy. Within this context money laundering poses another challenge. The European Money Laundering Directive provided for the extension of the obligation to notify suspicious transactions, in relation to non-financial professions and other sectors, in the money laundering process. The new rules will also cover professions not defined in U.S. anti-money laundering legislation, such as economists, auditors, and lawyers. An international body in the fight against

⁸⁶ New Constitutional Amendments approved by law no. 76/2016, dated 22.07.2016, published in the Official Journal no. 138 July 2016, they were consisting on the judicial reform.

⁸⁷ Directive 2001/97/EC of the European Parliament and of the Council of 4 December 2001 amending Council Directive 91/308/EEC on prevention of the use of the financial system for the purpose of money laundering - Commission Declaration.

<https://op.europa.eu/en/publication-detail/-/publication/57ce32a4-2d5b-48f6-adb0-c1c4c7f7a192#:~:text=0-Directive%202001%2F97%2FEC%20of%20the%20European%20Parliament%20and%20of,of%20money%20laundering%20%2D%20Commission%20Declaration> (visited on 10.03.2022).

money laundering and terrorist financing is also the Financial Action Task Force (FATF), in which the European Commission also plays an important role. The FATF has set out recommendations that should be considered as international standards in the fight against terrorist financing. One of the things that cannot be imagined when we are thinking about terrorism and terrorist financing is counterfeiting of goods. It should be taken into consideration that a wide range of terrorist organizations are taking advantage of the counterfeit production of goods. Counterfeiting includes compact discs, clothes or cosmetics, certain types of medicines, baby food, car spare parts, and even airplanes. Terrorists are using the internet as a tool to command and control their actions. At the same time, they are using the Internet as a propaganda tool to spread their message and put pressure on governments.

In this light, another Convention that aims to expand the European Community's efforts in the fight against terrorism is the Convention on the Laundering, Search, Seizure and Confiscation of the Proceeds of Crime and the Financing of Terrorism.

II. Operation Force of Law

As we pointed out above, in the framework of justice reforms, but also based on international reports and legal acts, the fight against assets stemming from illegal activities is presented to Albanian institutions for immediate solutions. One of the factors that makes the world of organized crime powerful is precisely its economic advantage. The economic empowerment of criminal organizations gives them almighty. This is exactly what the Albanian government has aimed to fight money laundering mechanisms and weaken as much as possible the economic power of criminal organizations, in order to be concluded with the effectiveness of the fight against organized crime and terrorist financing.

According to the Constitution, Article 101 defines the competence of the Council of Ministers to issue Normative Acts that will have the same force as the one of laws. But this competence is conditioned by two factors the necessity and emergency. Also, one of the characteristics of the Normative Act is their temporary⁸⁸ character. Are these conditions met to address the issue of Money Laundering in Albania? We can say that after the period of totalitarianism the issue of money laundering has always been part of being addressed by National Strategies⁸⁹ in the fight against organized crime. So, the need for the fight against money laundering is true and real, but we cannot qualify it as an emergency issue. Money laundering and terrorist financing are issues that need to be addressed in a consistent and permanent manner through laws that enable the implementation of effective legal or institutional measures against Money Laundering. The Normative Act sets out temporary measures, but this does not strengthen the fight against Money Laundering, as stable structures are needed to be continuously trained to properly address this fight.

The purpose of the Normative Act is the emergency and temporary intervention in the conditions of the need to strengthen and intensify the fight against organized crime with the aim of consolidating security in the country. In fact, security consolidation in the country cannot be achieved with temporary measures, only for one year, as it is foreseen at the Normative Act.

According to Article 3 of the Normative Act, it is determined that the provisions of this normative act apply to the category of subjects of this Act and only for the time and conditions provided in it. But how can we fight money laundering only for a certain amount of time. Will the fight against money laundering continue afterwards? Also, according to point 2 of article 3, it is determined that preventive measures will not be imposed on assets that before the entry into force of this act are in the process of judicial proceedings or for which it has been disposed

⁸⁸ Omari, L., Anastasi A., Constitutional Law, published by ABC, Tirana 2008, p. 35-200.

⁸⁹ Omari, L., Principles and Institutions of State Law, published by "Pegi" Tirana, 2005, p. 45-100.

by a court decision. So, we find that the scope of application of the Normative Act is unclear. What would be the category of subject by this Normative Act?

Referring to the subjects of the Normative Act, we find that according to this act are defined the category of persons whom until the moment of entry into force have been convicted by a final criminal decision inside or outside Albania. Such definition violates the principles of legal certainty and rule of law⁹⁰. How can an individual whom has been tried by a final court decision and convicted according to that decision be again subject to this Normative Act, so to be subject again to the coercive measures of the property regime, which in themselves constitute a coercive measure of a punitive character. We think that through this provision the constitutional principle "No one can be tried twice for the same criminal offense" is violated. This principle⁹¹ is already sanctioned under the Criminal Procedure Code⁹², as one of the fundamental human rights and freedoms. The government claims that court decisions are inaccurate, as courts have not administered or ruled over the assets of criminal organizations, but still there is a legal way to review or amend that court decisions and that reason do not justify violation of the constitution as the highest act of the hierarchy of legal acts.

Furthermore, according to point 2 of article 5 of the Normative Act, the persons under investigation are defined as the subject of this legal act. How can the assets of the persons under investigation be administered as long as the court has not ruled on the assets whether they are legal or not. So, the institution operation force of law will judge on the assets of persons under investigation. Based on the constitution only the court has the discretion to determine by decision, whether a certain property is illegal property or not. According to the Constitution, "no one can be deprived of his property without a final court decision." Based on this Normative Act the established institution is an administrative body not foreseen by the constitution it has no rights over the property or other human rights.

Regarding point 3 of article 5 of the Normative Act, the category of persons in this point is for persons against whom the procedure of announcement has started or there are suspicions for involvement, in any form of terrorism and its financing, according to the provision of the legislation on measures against terrorism. For foreigners declared by the UN Security Council as designated or suspected persons, there is an international procedure approved and accepted by the Albanian state, through which all financial institutions are required to freeze or sequester the assets of these persons. From the point of view of unification and harmonization⁹³ of legislation we cannot draft such a provision, aiming to regulate the same thing that has been regulated by a ratified international act that stands higher in the hierarchy of acts than this Normative Act, as this regulation that we intend to draft would be absolutely null. So, it cannot be ruled or judged over the properties of these foreign persons, but as well as to those who are declared according to the national legislation in force, as currently there is a certain procedure in force on how to operate in these cases by Albanian financial institutions. Such provisions of this Normative Act not only confuse the employees of their enforcement institutions, as well as the employees of criminal proceedings but in the same time employees of financial institutions, creating anarchy and disorder in different legal provisions for the same category of persons and their properties.

Regarding the definitions given in article 6 of the Normative Act, we find that the terms "Confiscation", "Property", "Element of fact", etc. are used, which are defined by other legal

⁹⁰ See above.

⁹¹ Balla, R., "Improving the Code of Criminal Procedure for the Protection of Witnesses of Justice", published in the European Journal of Interdisciplinary Studies, International Conference at Cambridge University, volume 6, issue 2, p. 88, 2020.

⁹² Amendments to the Code of Criminal Procedure published in the Official Journal, May 2017.

⁹³ Based on the Law Drafting Manual - A guide to law drafting in Albania, published by the European Union, Ministry of Justice and EURALIUS, Tirana 2010, p. 22.

acts. Referring to the terms "confiscation", and "Element of fact", we have to mention that these terms are already regulated by the Code of Criminal Procedure and even the term “Element fact” makes a very vague definition of the term "fact" made by Code of Criminal Procedure which is legal act adopted by a qualified majority of votes by Parliament and obtained a special rank at the hierarchy of acts. According to Kelzen's pyramid of legal acts, an act that is ranked at a secondary position at the hierarchy of acts cannot regulate otherwise than that provided for in an act that it is ranked at a higher position at the hierarchy of acts, otherwise it will be null and cannot bring any legal consequences. The same analyse applies to the term “property” which is regulated by the Civil Code. Thus, the definitions given by the Normative Act should simply refer to the respective Codes and not try to give different definitions, as they contradict the provisions of the Codes and do not serve the unification and harmonization of Albanian legislation. The seizure of assets in this way as it is stipulated by the Normative Act also violates the provisions of Articles 6 and 8 of the European Convention on Human Rights.

Article 10 of the Normative Act defines the personal preventive measures taken by the authorities of the justice system by defining regulations, procedures and deadlines which are different from those regulated by the Code of Criminal Procedure. The title itself provides for undefined declarative terms to whom they refer by "justice system authorities". Precisely for this reason this article is not in accordance with the Code of Criminal Procedure and the Constitution itself. Legal provisions⁹⁴ should represent a normative, regulatory character and not declarative terms that constitute a cause for different interpretations.

Article 11 of the Normative Act defines the preventive measures in cases of emergency or need and urgency, these cases are regulated and clearly defined by Code of Criminal Procedure. The provision of point 1 of this article stipulates that the General Director of the State Police may impose personal preventive measures, which have to do with the restriction of personal freedom. An unforeseen discretion by the Code of Criminal Procedure which determines that in cases of emergency or flagrante delicto it is the prosecutor who orders the taking of the security measure which must then be assessed by the court and by the end to be implemented by police. Because, in accordance with the Constitution, the restriction of fundamental human rights and freedoms can be done by anyone but a final court decision.

Article 16 of the Normative Act defines once again the subjects of this act, as they were initially defined at Article 5 thereof. The provision of this article expands the circle of persons and assets to which the foreseen measures will be applied. Thus, the assets of relatives such as spouses, children, etc up to sisters and brothers for whom the false registration is presumed will be seized. We think that this provision is an excess of competencies and conflicts with the Constitution and then with Code of Criminal Procedure, etc. It even contradicts the Normative Act itself since the circle of persons to whom this act will be applied is defined in its article 5. Article 21 further defines the rights of other persons. So, again we have entities to which this normative act is applied, confusing all the implementers of this normative act.

Article 22 of the Normative Act determines that the sequestration measure provided by this act will prevail above the sequestration measures provided by the criminal legislation, the legislation for prevention of organized crime and trafficking through preventive measures against property, or the legislation for measures against financing of terrorism and in this case these measures will take precedence. Can such a measure prevail over a measure ordered by the Court? The order of prevalence over various acts is regulated by the Constitution. Therefore, the sequestration measures taken pursuant to this act may not prevail over the sequestration measures ordered by the court.

⁹⁴ Balla, R., Some recommendations on the drafting of normative acts in order to harmonize and unify legislation, published in the scientific journal "Parliamentary Law and Legal Policies", 2005, no. 25, f. 28-43.

Referring to article 23 of the Normative Act, are determined by merging measures of a procedural nature that are in contrary to the provisions of Code of Criminal Procedures. Also, Article 24 defines the time of the trial, according to Article 27 it is determined that these cases, according to this act will be reviewed with priority by the responsible authorities leaving it undefined which are these authorities. So, in other words in these articles it is intended to determine procedural deadlines that are related to the time of the trial different from those provided by Code of Criminal Procedures. Regarding the above, these provisions contradict the provisions of Code of Criminal Procedures.

Article 28 determines some exceptions to the participation of the subjects of this act in having licenses or permits or benefits from public funds, while we think that these provisions should have been made in the special laws that are in force for these processes.

Moreover, transparency on the actions of this structure has been lacking. We do not have official information and data on the assets that were seized in order to judge the effectiveness of the creation of this special structure. However, the need for legal regulation should be focused on drafting and adopting appropriate legal provisions that will regulate the fight against money laundering mechanisms in a sustainable and continuous manner in Albania.

According to the yearly Progress Report for Albania for 2021 it is stipulated that: “notable progress was made in the fight against organised crime⁹⁵, including through cooperation with EU Members States, and through the implementation of the action plan to address the FATF recommendations. The implementation of the package of temporary preventive measures to enhance Albania’s capacity to counter criminal organisations (Operation Force of Law continued throughout the year. In 2020, this resulted in 181 police operations involving 802 suspects (of whom 630 were arrested/detained, 82 wanted and 85 investigated at large). 35 criminal groups were dismantled (an increase of 46% compared to 2019), 125 members of criminal groups were arrested and almost 15 million EUR worth of assets and bank accounts were seized. The Special Prosecution Office (SPO) initiated 200 criminal proceedings – 42 for organised crime and 158 for corruption – in 2020. During the same period, 39 criminal procedures for corruption and 16 procedures for organised crime were sent to trial”.

Conclusion

In these conditions, we can conclude that Albanian institutions should make more efforts to fight against money laundering and terrorist financing, but the fight must be fully in compliance with the Constitution. So, as it is mentioned above it is appreciated the initiative and the good will of the government on fighting the money laundering, but legal measures must be drafting by providing legal provisions in full compliance with the rule of law. Albania aspires to join European structures and should definitely consolidate the rule of law, where everything should be regulated by law and aimed at their implementation. The rule of law in Albania must prevail. The provisions made in the Normative Act are more like declarative definitions of a national strategy, rather than legal provisions of a normative and regulatory character, such as the character of a legal norm. The rule of law means the establishment of appropriate legal and institutional mechanisms, in full compliance with the Constitution, to combat money laundering mechanisms and not only, but against all illegal actions.

These suggestions will improve the measures against money laundering, but this fight must continue even more fiercely and effectively in addressing properly according to the law and the principles of the rule of law. Thus, we can conclude that based on the constitutional changes

⁹⁵ Progress Report for Albania 2021 of European Commission https://ec.europa.eu/neighbourhood-enlargement/albania-report-2021_en pg. 38 (visited on 10.03.2022).

and the legal package in its implementation, every Albanian citizen is hopeful that justice reform will lead the country forward, towards integration into the European Union.

References

1. New Constitutional Amendments approved by law no. 76/2016, dated 22.07.2016, published in the Official Journal no. 138 July 2016.
2. The Constitution of the Republic of Albania 1998, published in the Official Journal 1998.
3. Criminal Code published in the Official Journal 1995.
4. Amendments to the Code of Criminal Procedure published in the Official Journal published in, May 2017.
5. Normative Act no. 1, dated 31.01.2020 "On Preventive Measures in the Framework of Strengthening the Fight against Terrorism, Organized Crime, Serious Crimes and Consolidation of Public Order and Safety" was published in the Official Journal no. 127 of 2020.
6. Omari, L., Anastasi A., Constitutional Law, published by ABC, Tirana 2008.
7. Omari, L., Principles and Institutions of State Law, published by "Pegi" Tirana, 2005.
8. Balla, R., "Improving the Code of Criminal Procedure for the Protection of Witnesses of Justice", published in the European Journal of Interdisciplinary Studies, International Conference at Cambridge University, volume 6, issue 2, p. 88, 2020
9. Balla, R., "Constitutional Reform, Criminal Justice Reform in the Prevention of Organized Crime and Corruption", Publications of the International Scientific Conference at the Faculty of Law, 2017, p. 368.
10. FATF Recommendations which are 40 and 9 Special Recommendations on Terrorist Financing.
11. Referring to the Progress Report December 2019, MONEYVAL, Fight against Money Laundering and Terrorist Financing in Albania
12. Balla, R., "Combating Money Laundering and Terrorist Financing, Amendments to the Law on Prevention of Money Laundering, published by the European Institute, SEE I EU Cluster of Excellence in European and International Law, Verlag Alma Mater, Saarbrücken, Germany December 2018.
13. Balla, R., "Combating Money Laundering and Terrorist Financing, Amendments to the Law on Prevention of Money Laundering, published by the European Institute, SEE I EU Cluster of Excellence in European and International Law, Verlag Alma Mater, Saarbrücken, Germany December 2018.
14. Based on the annual progress reports for Albania of the European Commission for the Efficiency of Justice which was established on 18 September 2002.
15. Resolution Res (2002) 12 of the Committee of Ministers of the Council of Europe.
16. Law Drafting Manual - A guide for drafting laws in Albania, published by the European Union, Ministry of Justice and EURALIUS, Tirana 2010.
17. Balla, R., Some recommendations on the drafting of normative acts in order to harmonize and unify legislation, published in the scientific journal "Parliamentary Law and Legal Policies", 2005

Web page:

1. <https://www.unodc.org/unodc/en/money-laundering/Instruments-Standards.html> dated August 21st 2017.
2. <https://www.coe.int/en/web/moneyval>
3. https://www.coe.int/t/dghl/cooperation/cepej/presentation/cepej_en.asp
4. https://qbz.gov.al/alfresco/api/-default-/public/alfresco/versions/1/nodes/c3b7511d-0a67-44d2-84fc-23b3ccf4a127/content?attachment=false&alf_ticket=TICKET_e7637b422fc0db25b83cd9af36a10e8764af3ec9

ARTIFICIAL INTELLIGENCE AND THE CHALLENGES OF CRIMINAL LAW IN DIGITAL BUSINESS

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Abstract

This paper analyses the challenges that artificial intelligence poses for criminal law in the context of digital business in Albania, in view of the process of integration into the European Union. The study is based on the thesis that the penetration of intelligent systems into economic relations not only transforms the way commercial activity is organised and carried out, but also tests the ability of criminal law to effectively protect the legal certainty of the market. In this sense, the use of AI in the business environment brings about a shift in criminal risk from traditional forms of illegal behaviour towards more complex forms of system interference, computer fraud, data misuse, violation of the integrity of transactions and avoidance of legal control through automation.

The paper assesses that the existing criminal and procedural framework faces significant difficulties in addressing issues related to the attribution of responsibility, identification of authorship, assessment of the role of the algorithm in the realisation of the consequence, as well as the administration and reliability of electronic evidence. These challenges become even more pronounced in the conditions where digital business operates in a cross-border, decentralised, and technologically mediated environment, where the boundaries between criminal, administrative and civil liability are becoming increasingly blurred. In this perspective, the study argues that Albania needs a more specialised approach in the criminal treatment of phenomena related to digital business, as well as a more functional approximation with the legal standards of the European Union. In conclusion, the paper defends the idea that the development of digital business requires not only technological innovation, but also a reconstruction of criminal protection instruments, so that economic transformation is not accompanied by normative gaps and weakening of market security.

Keywords: Artificial Intelligence; Criminal Law; Digital Business; Cybercrime; Electronic evidence; EU Integration.

JEL Classification: K14, K22, K24, K42, O33, O38.

1. Introduction

The development of artificial intelligence in digital business has created a new reality for criminal law. Economic activity no longer takes place solely through traditional relationships between natural or legal persons, but increasingly through digital platforms, automated decision-making systems, risk assessment algorithms, electronic verification tools, digital payments and massive data processing systems. In this environment, criminally relevant behaviour does not always manifest itself as direct human action, but can be mediated, facilitated, masked or intensified by intelligent systems.

In Albanian criminal doctrine, the protective function of criminal law is related to the protection of the most important legal relations from violations with high social risk. However, in the conditions of the digital economy, these relations are no longer violated only through physical actions, traditional documents or direct communications, but also through interventions in systems, data, automated processes and algorithmic decision-making (Elezi et al ., 2015). This shift requires criminal law to maintain its classical principles, but at the same time to develop interpretation instruments appropriate to the technological reality.

This change creates a particular challenge for criminal law. Traditionally, criminal liability is built on several basic categories: action or omission, authorship, culpability, causation, consequences, and evidence. When artificial intelligence is used in digital business, these categories become more difficult to identify. An illegal transaction can be carried out by an automated system; fraudulent communication can be generated by AI; a discriminatory decision can be produced by an algorithmic model; and electronic evidence can be fabricated or manipulated through synthetic technologies. Therefore, the problem lies not only in the fact that AI can be used to commit criminal offences, but in the way it challenges the very mechanism through which criminal law identifies liability.

At the European level, this issue is related to the risk-based regulatory model provided for by Regulation (EU) 2024/1689, which requires, among other things, risk management, transparency, technical documentation, data governance and human oversight for certain AI systems (European Parliament and Council , 2024). Although this act is not a criminal act, the standards it establishes may have indirect relevance for criminal law, particularly in assessing the due care, negligence, duty of care and liability of entities using AI in digital business.

In the Albanian context, this issue takes on particular importance for two reasons. First, Albania is in the process of European integration and therefore needs to approximate the legal framework to the European Union standards in the field of artificial intelligence, personal data protection, cybersecurity and electronic evidence. Second, digital business in Albania is developing in an environment where the criminal and procedural framework is not specifically built for algorithmic phenomena. In this regard, the Criminal Code of the Republic of Albania, Law No. 9754/2007 on the criminal liability of legal persons, Law No. 124/2024 on personal data protection and Law No. 25/2024 on cybersecurity constitute the main normative basis for analyzing the impact of AI on criminal liability and security of digital business (Assembly of the Republic of Albania, 1995/2024, 2007, 2024a, 2024b).

The objective of this paper is not to analyse artificial intelligence as a general instrument of economic transformation, but to examine how its use in digital business challenges the fundamental categories of criminal law. The paper focuses on criminal authorship, culpability, causation, liability of legal persons and electronic evidence, arguing that these categories require more specialised interpretation in the context of economic activity mediated by algorithms.

2. Literature Review

Contemporary literature on artificial intelligence and criminal law has developed with particular intensity in recent years, especially following the proliferation of generative AI

systems, the increase in the use of deepfakes, the development of digital business and the adoption of the new European framework for artificial intelligence. In contrast to approaches that treat AI mainly as an innovation tool, the newer literature places emphasis on liability, authorship, evidence, human control and the risk of using the technology for illegal purposes. An important strand of the literature is related to the impact of intelligent technologies on the structure of legal and economic decision-making. Hildebrandt (2015) argues that intelligent technologies are not neutral tools, but structures that influence the way individuals and institutions make decisions. This approach is important for criminal law, because illegal action in the digital environment is not always associated with an overt human act, but can be the result of an interaction between the subject, the system, the data and the algorithm.

Zuboff (2019) treats the digital economy as an economy based on the collection and use of data on human behaviour for the purposes of prediction and influence. This argument is relevant for digital business, because it shows that economic relations are increasingly built on profiling, prediction and control of behaviour. For the purposes of this paper, the main importance lies in the fact that this data infrastructure can also be used for criminally significant purposes, such as fraud, manipulation, discrimination and concealment of authorship.

In the literature on algorithmic manipulation, Yeung (2017) develops the concept of “hypernudge”, explaining that algorithmic systems can structure the digital environment in such a way that individual choices are guided without direct intervention. Further, Acemoglu et al (2024) analyse how big data can be used to manipulate economic behaviour. These contributions are important for criminal law, because they help to understand the boundary between legitimate commercial influence and illegal manipulation that can be associated with fraud, unfair advantage or economic harm.

Another direction is related to digital and algorithmic discrimination. Criado and Such (2019) analyse that digital systems can produce discriminatory consequences when they rely on biased data, inappropriate models or non-transparent decision-making. The case reported by Dustin (2018) on Amazon’s recruitment tool, which was withdrawn after bias against female candidates emerged, shows that algorithmic discrimination can manifest concretely in business and employment relationships. In criminal law, this debate is relevant when discrimination is associated with a violation of rights, an unfair advantage, or serious consequences for the affected subjects.

In Albanian literature, the issue of electronic evidence and cybercrime has been addressed mainly in relation to criminal investigation, international cooperation and the ability of the justice system to manage digital evidence. Hoxhaj (2017) highlights the difficulties of investigating cybercrime in Albania, particularly regarding electronic evidence and cooperation with service providers. Cami (2024), on the other hand, addresses the issue of cross-border access to electronic evidence in relation to the standards of the Council of Europe and the European Union. These analyses take on added importance in the era of AI, where the problem is not only the provision of evidence, but also the verification of its authenticity, integrity and origin.

More directly, Shehaj and Kullaj (2025) address evidence generated by artificial intelligence and raise the need for clearer procedural standards in their assessment in the Albanian criminal process. This contribution is important for this paper because it shifts the analysis from traditional electronic evidence to evidence created, modified, or contested as manipulated by intelligent systems. In this sense, the Albanian literature on electronic evidence needs to expand towards a more specialised analysis of algorithmic and synthetic evidence.

A particularly important body of literature in recent years has been devoted to deepfakes and electronic evidence. Delfino (2023) argues that deepfakes require a more active role for judges in the preliminary examination of evidence, because technological manipulation can undermine the integrity of the judicial process. Similarly, institutional and professional sources

have emphasised that AI- generated evidence can undermine public trust in the courts if clear standards for its authentication , expert review, and reliability assessment do not exist (National Centre for State Courts , 2026; Thomson Reuters , 2025).

In the Albanian context, classical criminal doctrine remains important for understanding the limits of criminal intervention. Elezi , Haxhia and Kaçupi (2015) address the importance of the principle of legality, the protective function of criminal law and the link between guilt and criminal responsibility. These categories are necessary to avoid the excessive criminalization of technology. In the same vein, Mecalla and Xhuvani’s (2024) analysis on the criminal responsibility of accomplices in the commission of a criminal offence is useful for understanding cases where the criminal contribution is distributed among several actors, an issue that becomes even more complex when the action is mediated by AI systems.

At the normative level, recent European developments are essential. Regulation (EU) 2024/1689 establishes a risk-based model for AI regulation, providing for prohibited practices, high-risk systems, transparency obligations and requirements for human oversight (European Parliament and Council , 2024). Meanwhile, Regulation (EU) 2023/1543 and Directive (EU) 2023/1544 strengthen the mechanisms for securing and preserving electronic evidence in criminal proceedings (European Parliament and Council , 2023a, 2023b). In Albania, Law No. 124/2024 on personal data protection and Law No. 25/2024 on Cybersecurity are important for understanding the relationship between AI, data, security and liability (Assembly of the Republic of Albania, 2024a, 2024b).

In summary, the existing literature shows that AI not only creates opportunities for innovation in digital business but also significant challenges for criminal law. However, in the Albanian context, a comprehensive analysis linking criminal authorship, culpability, causality, liability of legal persons and electronic evidence in cases where economic activity is mediated by intelligent systems is still lacking. This is precisely the gap that this paper addresses.

3. Research Methodology

The paper relies on the doctrinal -criminal method, comparative analysis and normative approach. The doctrinal method is used to analyse the basic categories of criminal law that are affected by the use of AI in digital business: authorship, culpability, causal connection, liability of legal entities and electronic evidence. This method is appropriate because AI does not only create technical problems, but also challenges the way criminal law conceives of action, subject, consequence and liability.

The normative analysis includes the provisions of the Criminal Code of the Republic of Albania on criminal offences in the field of computer systems and data, the legal framework on criminal liability of legal persons, the protection of personal data, cybersecurity and obligations related to the prudent management of commercial activity (Assembly of the Republic of Albania, 1995/2024, 2007, 2008, 2024a, 2024b). In this way, the analysis is not limited to the Criminal Code, but places criminal liability in a broader context of digital business and regulatory obligations .

Comparative analysis is used to benchmark the Albanian framework against European Union standards , particularly in relation to the AI Act , European rules on electronic evidence and cybersecurity instruments. This approach is important for Albania, as the European integration process requires not only formal approximation of legislation, but also the development of institutional capacities for effective implementation.

The normative approach is used to assess whether the current Albanian criminal and procedural framework is sufficient to cope with the new forms of risk created by the use of AI in digital business. The analysis does not aim to support excessive criminalisation of the technology, but

to identify in which cases the use of AI becomes criminally relevant and what interpretative or regulatory tools are needed for a more effective response.

4. Results : Criminal-Law Challenges of AI in Digital Business

4.1. Attribution of Criminal Responsibility

The first result of the analysis is that artificial intelligence complicates the determination of criminal authorship. In the classic model of criminal law, the author is the entity that carries out the illegal act or that contributes to its realisation according to known forms of cooperation. In digital business, the illegal act can be realised through an intelligent system, where several actors intervene: the developer of the algorithm, the platform operator, the commercial entity that uses the system, the technical administrator, the employee who activates the process or the legal entity that benefits from the result.

In Albanian criminal law, the problem of authorship must be read in relation to the principle of personal responsibility and to forms of collaboration in the commission of a criminal offense. However, the use of AI in digital business complicates this analysis, because the criminal contribution may not be concentrated in a single human act, but be distributed between the design, configuration, use and supervision of the system (Elezi et al ., 2015; Mecalla & Xhuvani, 2024).

This makes it difficult to determine who should be held accountable. For example, if an AI system is used to generate misleading communications to customers, liability may lie with the person who intentionally used the system, but it could also raise issues for the company that has not put controls in place. If the system produces discriminatory or manipulative decisions, it is necessary to analyze whether liability lies with the designer, the user, the administrator, or the entity that benefited from the decision.

In this sense, AI does not replace the human perpetrator, but rather makes the way of identifying him more complex. Albanian criminal law should be able to distinguish between cases where AI is simply a tool, cases where it is an instrument used for an illegal purpose, and cases where the consequence comes from the lack of reasonable control over the system.

4.2. Intent, Negligence and Algorithmic Control

The second outcome relates to culpability, particularly the distinction between intent and negligence. In traditional crimes, the analysis of culpability is concerned with whether the subject intended the consequence, foresaw it, or should and could have foreseen it. In the case of AI, this analysis becomes more complex because the consequence may result from the operation of a complex system, from inaccurate data, from a lack of auditing, from human oversight, or from the deliberate use of the system to avoid responsibility.

In digital business, a central issue is the obligation for algorithmic control. Entities that use AI systems in economically significant processes cannot always claim that the consequence was produced “by the system” and not by them. If the company uses a technology that affects transactions, payments, customer selection, identity verification or data management , it must have mechanisms for control, auditing , documentation and human intervention. The absence of these mechanisms can be significant in the analysis of negligence.

The EU AI Act standards on risk management, technical documentation, transparency, and human oversight can serve as a reference point for assessing whether a commercial entity has acted with due care when using high-risk AI systems (European Parliament and Council, 2024). In this sense, the breach of control and audit obligations does not automatically create criminal

liability, but may be relevant in the assessment of negligence when the criminal consequence was foreseeable.

This does not mean that every algorithmic error should give rise to criminal liability. The principle of proportionality and the principle of ultima ratio require that criminal law intervene only when the risk or harm reaches such a level that it cannot be adequately addressed by civil, administrative or regulatory law. However, when the lack of algorithmic control is associated with serious consequences, unfair advantage or foreseeable risk, it may take on criminal significance.

4.3. Causation and the Role of the Algorithm

The third result is that AI makes it more difficult to prove causation. In criminal law, it must be proven that the subject's action or inaction is related to the consequence. In intelligent systems, the consequence can be the result of a long chain of factors: training data, algorithmic model, technical configuration, mode of use, user interventions, lack of auditing, or the action of a third party.

In cases where the criminal consequence is mediated by an algorithm, the causal link should be analysed functionally, taking into account not only the initial action of the subject, but also the configuration of the system, the quality of the data, the level of human oversight and the real possibility of preventing the consequence. This approach is consistent with the need for criminal liability not to be expanded objectively, but to remain linked to culpability and effective control over the source of the risk (Elezi et al., 2015).

In digital business, this issue is particularly important. A fraud can be perpetrated through automatically generated communications; an economic harm can come from a flawed valuation system; an illegal transaction can be concealed through automation; and a harmful decision can be produced by the combination of data and algorithms. In these cases, the court must analyse not only the human action but also the role that the system played in achieving the consequence.

For this reason, it is not enough to say that “the algorithm produced the consequence”. It must be determined who put the system into operation, who controlled it, who had an obligation to audit it, who benefited from the result and whether the consequence was foreseeable. Only through this analysis can both impunity and unjust liability be avoided.

4.4. Corporate Criminal Liability

The fourth result relates to the criminal liability of legal persons. In digital business, many of the risks of AI are not created by isolated individuals, but by systems that are used, controlled or managed by companies and platforms. For this reason, the liability of legal persons becomes one of the focal points of criminal analysis.

In the Albanian context, Law No. 9754/2007 “On the Criminal Liability of Legal Persons” constitutes the main basis for analysing the liability of companies in cases where a criminal offence is committed in the name, on behalf of or for the benefit of a legal person (Assembly of the Republic of Albania, 2007). In the context of AI, this legal basis should be interpreted in such a way as to also include cases where the damage results from the lack of control, audit or supervision of intelligent systems used by the commercial entity.

This analysis should also be linked to the obligations of the governing bodies of commercial companies for prudent administration, transparency and risk management, which in the digital environment also include control over the technologies used in economic activity (Assembly of the Republic of Albania, 2008). If a company uses an AI system without sufficient controls and this system is used for fraud, manipulation or data breach, it should be analysed whether the lack of control can constitute a basis for liability.

This approach is also important due to the cross-border nature of digital business. Platforms may operate in several jurisdictions, data may be stored abroad, while consequences may appear in Albania. This requires international cooperation, clarification of companies' obligations, and stronger standards for documenting algorithmic decision-making.

4.5. Electronic Evidence and Deepfake Manipulation

The fifth result is that AI makes the management and evaluation of electronic evidence more uncertain. If documents, voices, videos, images or communications can be generated or manipulated by intelligent systems, then the main challenge is not just securing the evidence, but verifying its authenticity, integrity and origin.

At the European level, Regulation (EU) 2023/1543 and Directive (EU) 2023/1544 aim to strengthen mechanisms for the securing and preservation of electronic evidence in criminal proceedings, particularly in an environment where data is stored by service providers operating across borders (European Parliament and Council, 2023a, 2023b). However, in the age of AI, the problem is not limited to access to evidence, but also extends to its authenticity, because audio, video, images and documents can be generated or manipulated by intelligent systems (Delfino, 2023; National Center for State Courts, 2026).

Cami's (2024) analysis on cross-border access to electronic evidence in the Albanian experience is important, but in the context of AI, it should also be expanded towards standards of technical verification, chain of custody and forensic expertise of evidence generated or contested as manipulated.

This issue is particularly important in digital business, where electronic contracts, financial authorizations, customer communications, payments and commercial documents can have evidentiary value. Deepfakes and synthetic content can be used to create false evidence, manipulate statements, produce false authorisations, or undermine trust in electronic documentation. For this reason, clear standards are needed for digital forensics, metadata, chain of custody, source verification, and critical assessment by the court.

5. Discussion: Towards a Criminal-Law Response to Algorithmic Risk

The findings of this paper show that AI should not be criminalised as a technology. The problem lies not in the existence of intelligent systems, but in their use to commit, facilitate, conceal or intensify illegal behaviour. For this reason, the criminal response must be prudent, proportionate and linked to the *ultima ratio* principle.

The Albanian Criminal Code contains provisions that can also be applied to cases of abusive use of AI, especially when the conduct involves fraud, forgery, interference with computer data, infringement of computer systems, or unfair economic gain (Assembly of the Republic of Albania, 1995/2024). However, the challenge lies in interpreting these provisions in situations where the criminal act is not committed directly by the subject, but is mediated by an intelligent system.

Law No. 25/2024 “On Cybersecurity” and Law No. 124/2024 “On Personal Data Protection” create an important preventive and regulatory framework, but do not replace the function of criminal law when the violation of data, systems or transactions reaches the level of criminal risk (Assembly of the Republic of Albania, 2024a, 2024b). In this sense, regulatory laws create standards of care and prevention, while criminal law intervenes when the violation takes on a serious character and requires a punitive response.

Some of the existing criminal figures can also be used for AI cases, such as fraud, forgery, computer data interference, invasion of privacy, money laundering and cybercrime. However, these figures need more specialised interpretation when the behaviour is carried out through intelligent systems. For example, deepfake fraud is not necessarily a completely new category,

but represents a more sophisticated form of fraud, where the authenticity of the communication becomes a central element of the analysis.

At the same time, the need for interpretative guidelines or specific rules in certain areas should not be ruled out. These could relate to electronic evidence generated by AI, algorithmic audit obligations, liability of legal entities, standards of human control, and criteria for assessing negligence in the use of intelligent systems. Such an approach is more appropriate than a broad and general criminalisation of the technology.

The EU AI Act, although not a criminal act, has indirect relevance for criminal law. It sets standards of care, transparency, human oversight and the prohibition of certain practices with unacceptable risks (European Parliament and Council, 2024). These standards may influence the assessment of negligence, duty of care, and liability of entities using AI in digital business. For Albania, the main challenge is to build an integrated response. Formally changing the law is not enough. Technical capacities are needed in the prosecution, judicial police and courts; experts specialised in digital evidence; cooperation with data protection and cybersecurity authorities; as well as procedural standards for evidence generated or manipulated by AI. Only in this way can criminal law protect market security without hindering the development of digital business.

6. Conclusion

Artificial intelligence is creating new challenges for criminal law in digital business. It not only changes the way economic activity is organised, but also affects the fundamental categories through which criminal liability is constructed: authorship, culpability, causal connection, liability of legal persons and electronic evidence.

In Albania, these challenges need to be analysed in direct relation to the European integration process. Approximation to European Union standards in the fields of artificial intelligence, electronic evidence, data protection, and cybersecurity is necessary but not sufficient. It must be accompanied by more specialised criminal interpretation, institutional capacities and clear standards for the investigation of algorithmically mediated behaviours.

The main contribution of this paper lies in shifting the analysis from AI as an instrument of economic transformation to AI as a challenge to the fundamental categories of criminal law. In this sense, the problem is not only whether Albanian legislation should foresee new provisions, but whether existing criminal institutions are able to identify authorship, culpability, causality and evidence in an environment where economic activity is mediated by intelligent systems.

The paper concludes that the development of digital business requires not only technological innovation, but also the reconstruction of criminal protection instruments. Criminal law must maintain its character as a last resort, but at the same time, it must be able to react when intelligent systems are used to violate the legal certainty of the market, the integrity of transactions and trust in electronic evidence. In this sense, AI constitutes not only a technological challenge, but also an institutional test for the Albanian criminal system on the path towards European integration.

References

1. Acemoglu, D., Makhdoumi, A., Malekian, A., & Ozdaglar, A. (2024). When big data enables behavioral manipulation.
2. Cami, G. (2024). Legal standards for cross-border access to electronic evidence: The Albanian experience in comparative perspective. *Studia Iuridica Lublinensia*.
3. Council of Europe. (2001). Convention on Cybercrime. Budapest, 23 November 2001.
4. Council of Europe. (2022). Second Additional Protocol to the Convention on Cybercrime on Enhanced Co-operation and Disclosure of Electronic Evidence. Strasbourg, 12 May 2022.

5. Criado, N., & Such, J. (2019). Digital discrimination.
<https://doi.org/10.1093/oso/9780198838494.003.0004>
6. Dastin, J. (2018, October 10). Amazon scraps secret AI recruiting tool that showed bias against women. Reuters.
7. Delfino, R. A. (2023). Deepfakes on trial: A call to expand the trial judge’s gatekeeping role to protect legal proceedings from technological fakery. *Hastings Law Journal*, 74, 293–299.
8. Elezi, I., Haxhia, M. R., & Kaçupi, S. (2015). Komentari i Kodit Penal të Republikës së Shqipërisë: Pjesa e përgjithshme. Tiranë.
9. European Parliament and Council. (2023a). Regulation (EU) 2023/1543 on European Production Orders and European Preservation Orders for electronic evidence in criminal proceedings. *Official Journal of the European Union*, L 191, 118–180.
10. European Parliament and Council. (2023b). Directive (EU) 2023/1544 laying down harmonised rules on the designation of designated establishments and the appointment of legal representatives for the purpose of gathering electronic evidence in criminal proceedings. *Official Journal of the European Union*, L 191, 181–190.
11. European Parliament and Council. (2024). Regulation (EU) 2024/1689 laying down harmonised rules on artificial intelligence. *Official Journal of the European Union*.
12. Hildebrandt, M. (2015). *Smart technologies and the end(s) of law: Novel entanglements of law and technology*. Edward Elgar Publishing.
13. Hoxhaj, A. (2017). Law enforcement and investigation of cybercrime in Albania. *European Scientific Journal*, 13(25), 115–118.
14. Ligji nr. 7895, datë 27.1.1995 "Kodi Penal i Republikës së Shqipërisë i ndryshuar
15. Ligji nr. 9754, datë 14.6.2007 “Për përgjegjësinë penale të personave juridikë”.
16. Ligji nr. 9901, datë 14.4.2008 “Për tregtarët dhe shoqëritë tregtare”, i ndryshuar.
17. Ligji nr. 124/2024 “Për mbrojtjen e të dhënave personale”.
18. Ligji nr. 25/2024 “Për sigurinë kibernetike”.
19. Mecalla, N., & Xhuvani, E. (2024). Criminal responsibility of accomplices in committing a criminal offence. <https://doi.org/10.33327/AJEE-18-7.1-n000115>
20. National Center for State Courts. (2026, February 24). AI-generated evidence is a threat to public trust in the courts.
21. Shehaj, I., & Kullaj, M. (2025). Evidence generated through artificial intelligence. *Albanian Law Journal*, 1–5.
22. Thomson Reuters. (2025, May 8). Deepfakes on trial: How judges are navigating AI evidence.
23. Yeung, K. (2017). “Hypernudge”: Big data as a mode of regulation by design. *Information, Communication & Society*, 20(1), 118–136. <https://doi.org/10.1080/1369118X.2016.1186713>
24. Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. PublicAffairs.

CHALLENGES IN ENVIRONMENTAL MANAGEMENT ACCOUNTING IMPLEMENTATION IN ALBANIA. INSIGHTS FROM A MEDICINAL HERB PROCESSING COMPANY

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Abstract

The implementation of Environmental Management Accounting (EMA) in developing countries has emerged as a critical instrument for promoting environmentally sustainable practices. EMA is a powerful strategic management accounting tool that provides and integrates different environmental related data to the decision-making. It is commonly argued that EMA implementation has a pivotal role in reducing operational costs, enhancing efficiency, thus providing competitive advantage. This study examines the implementation of EMA in a company operating in Albania within medicinal plant sector, highlighting both the opportunities and constraints of EMA implementation.

The findings suggest that regulatory pressures are a key driving force in EMA implementation in developing economies. The study also emphasizes different barriers that affect EMA implementation in Albania.

Keywords: Environmental Management Accounting, Sustainable Practices, Waste Management, Environmental Performance

1. Introduction

The continues environmental degradation due to extensive environmental resources utilizations has triggered various economic and political actors to raise their awareness into implementing environmentally sustainable policies (Mancini, 2016). Due to the pressures regarding environmental conditions companies are subject to various internal and external pressures to adopt eco-friendly strategies. Environmental management accounting (EMA) is a strategic management accounting tool that aids both company's management and external actors to address the demand for greater transparency and accountability related to environmental

impacts (Lu et al., 2018). EMA is divided into two subcategories: Physical Environmental Management Accounting (PEMA) and MEMA (Monetary Environmental Management Accounting). PEMA primarily analyses data related to the physical aspects of production, including the quantity of raw materials available in the processing phase, the amount of energy and water used in processing these materials, as well as the volume of waste generated during this process. Through the analysis of these indicators, valuable information is obtained regarding the level of pollution caused by the company activities. In the medicinal plants sector, where the quantities of raw materials processed within a single working day are substantial, PEMA plays a particularly important role. MEMA (Monetary Environmental Management Accounting) deals mainly with the identification and analysis of environmental costs and benefits translated into monetary values. It takes into account costs such as energy, water, waste treatment, transportation as well as environmental penalties and their financial impact (Jasch, 2018). MEMA can be used for developing environmental budgeting and identification of environmental risks and hazards. By analyzing these factors, important data is obtained to improve technology by using low-polluting equipment as well as to implement waste recycling systems, which leads to energy savings and waste reduction (Cortés et al., 2007). Therefore, EMA has as its main goal the identification of the costs that the company has in its impact on the environment in both physical and financial units, helping management to make appropriate financial decisions and identify savings opportunities.

Environmental Management Accounting (EMA) is recognized as a method used in accounting that integrates financial data with environmental information. The results derived from this integration are presented to company management and serve as essential inputs for making informed decisions regarding environmental impacts. In other words, EMA involves the identification, measurement, and analysis of costs with environmental impact (Bansal & Roth, 2000). Its primary objective is to assess the level of pollution generated by a company by quantifying the amount of energy consumed as well as the level of waste produced during the processing of raw materials. By analysing environmental-related costs through factors such as measuring the quantity of waste generated, the amount of energy used in processing raw materials, and the level of pollution, EMA enables company management to make appropriate decisions aimed at reducing environmental impact and increasing company efficiency in using natural resources (Henri & Journeault, 2018).

2. Main factors affecting EMA implementation in medicinal plant industry

According to institutional theory the organizational sustainable practices and behaviors are significantly influenced by institutionalized formal and informal elements such as regulations and laws, culture norms and social expectations. In developing countries like Albania, coercive pressure is the key factor that directly influence EMA adoption through formal regulations laws and mandates that are compulsory to be adopted. This pressure is mainly exerted by different external stakeholders such as government authorities, regulatory bodies and powerful suppliers or customers.

-Regulatory pressure

Regulatory pressure generally is exerted by institutional influences, manifested through different legal legislation, cultural norms and industry practices which can have a huge impact on environmental aspects of organizational operations (Correa et al., 2008). In this context EMA acts like a balancing tool between internal management objectives which is oriented toward value creation and institutional expectation which generally are oriented toward environment preservation. This factor refers to the pressure exerted on companies by state institutions and legislation to respect and adapt the laws in force in order to avoid penalties.

-Stakeholder pressure

Under normative pressure companies are encouraged to adopt EMA mainly to manage public perception through transparency in regards to environmental practices therefore, contributing in enhancing company's public image and reputation. Generally, in the Albanian market the international stakeholders represented through international suppliers and customers have a direct impact in the promotion of EMA implementation. These stakeholders seek cooperation with environmentally friendly companies that have obtained specific standards in environmental protection, waste reduction and adaptation of the green technology (Haruna & Mahmood, 2018). Through different stakeholder pressures like important customers and suppliers companies generally are obliged to conform their environmentally friendly practices through various environmental certifications (ISO) that aid them to access international markets. A company without environmental awareness and with a lack of EMA implementation can face several obstacles to enter the international markets where sustainable practices are often mandatory. On the other side, the on growing concerns of pollution has also triggered the customers sensibility to protect the environment by increasing the demand for eco-friendly products, forcing companies to be oriented toward environmentally friendly practices (Gale, 2006). Being environmentally focused enables eco-innovation by creating of green products and processes, providing new products and market opportunities, thus making a differentiation from other companies by creating long-term competitive advantage. In companies engaged in the export of medicinal plants, stakeholders' pressure is a dominant factor providing a strong image in the international market as an “eco-friendly” company.

-Community pressure

Community pressure plays an important role in the EMA implementation, as the continuous effort of community for transparency of company's activities impact on environment. Through EMA the company enhances their transparency and accountability regarding environmental impacts (Johnstone, 2018). Community pressure compels companies to adopt environmentally friendly practices not only to comply with regulatory requirements but also to maintain legitimacy and trust within the communities in which they operate.

3. The implementation process of EMA in Herbal Fructus, Elbasan

The implementation of Environmental Management Accounting (EMA) in the medicinal herbs sector, particularly in companies focused on export activities, is of special importance. It enables the identification of losses and the amount of waste generated during the processing of raw materials, and translates these data into the corresponding financial costs. At the same time, it helps identify the key factors that contribute to reducing these losses, leading to more efficient processes and a lower level of environmental impact. The implementation of EMA in Herba Fructus Ltd., a company engaged in the processing of medicinal plants, has proven to be highly valuable. It has helped the company in identifying the quantities of waste generated from raw materials as well as the costs associated with these losses. EMA implementation has contributed in arising the firm's accountability toward environment, directly affecting the sustainability and environmental performance. EMA implementation has a pivotal role in enhancing the company's image toward important international customers who take in consideration the green practices.

In this perspective Herba Fructus Ltd, has overtaken several steps in EMA implementation. In the processing of raw materials such as lavender, balm, mallow and chamomile the waste generated is well distinguished and recorded in our financial disclosures. Through EMA, the company has been able to determine the volume of waste generated during the processing of these products and assess the financial impact that this waste has on overall company costs.

In reducing the physical impact on environment through PEMA adoption, Herba Fructus Ltd. was able to target, calculate and reduce several physical environmental inputs and outputs, such as energy and water consumption and waste analysis. The data provided by PEMA targeted several environmental impacts in electricity and water utilization and aided the decision

making to minimize these impacts by adopting greener technologies. In this perspective Herba Fructus Ltd installed several photovoltaic panels and a water well was also opened in the company's premises. The pollution of water output was reduced by implementing a plant for the treatment of polluted water, leading to a reduction in the amount of waste. By doing so the company increased the efficiency in the electricity and water utilization. With MEMA implementation, the company was able to specify and distinguish the electricity costs and their impacts in financial terms. Given these data the management was able to focus in finding more sustainable and efficient practices in electric and water consumption. Concretely, the data showed an average electric consumption of 25,000 euros per year. Since the commissioning of photovoltaic panels, this consumption has been reduced to 4500 euros/year. The cost of installing photovoltaic panels is 73,000 euros and the return on investment is 3.6 years. Meanwhile, by opening the water well the costs from water utilization are reduced from 3200 euros to 960 euros per year on average. The initial investment value is 14,000 euros and the return on investment is 6.2 years.

Through EMA implementation the management was able to make further investments in green technology by investing in modern herbal processing equipment which led to the drastic reduction of herbal waste in processing phase. The investments in modern equipment led to an increase of the processed herbs without increasing the level of pollution. Specifically, from the processing of 1 ton of chamomile, the amount of waste is reduced to 25 kg/ton from 70 kg/ton that was the efficiency of old equipment, reducing the waste costs from 154 euros that were initially to 55 euros.

Besides cost and waste reduction EMA utilization has become a key factor in reducing the company's effect on environment and transforming Herba Fructus Ltd in an "eco-friendly" company. Implementing sustainable practices increases the competitiveness in international markets, since prestigious companies require compliance with certain environmental standards. In this perspective Herba Fructus Ltd. applied and obtained the “Type B” environmental license from the Ministry of Environment. This license is mandatory to carry on the activities of processing and exporting medicinal plants, within legal and institutional pressures framework. To obtain this license several technical and environmental standards need to be fulfilled such as drafting self-monitoring reports every 3 months by a licensed studio (each report has a cost of 300 euros), which includes:

- the level of pollution from processed herbs waste,
- the level of pollution of dust in the air
- the level of water and soil pollution
- the level of acoustic pollution from working equipment

In the process of obtaining “Type B” environmental license PEMA plays a crucial role in identifying and relocating the specific input and outputs of environmental costs. By utilizing the data obtained by PEMA the company was able to make the necessary decisions and fulfilling the required standards to obtain “Type B” environmental license and secured the right to export in developed countries.

EMA implementation has played a crucial role in obtaining ISO 14001 standard. The company is equipped with the ISO 14001 Environmental Management System EMS certificate, which is also the main standard regarding the environment. This standard includes the identification of the company's processes that have an impact on the environment. This standard also deals with the management and reduction of pollution, waste and energy consumption. By meeting this standard, the company is able to monitor environmental performance and make continuous improvements in this aspect. The cost of certification varies from 8,000-20,000 euros depending on the company's size and requirements. For the conditions of the company Herba Fructus Ltd, this cost is 10,000 euros. To be certified with this standard, the company should fulfill a series of requirements, such as defining the environmental policies for environmental

preservation and the analysis of the company's impact on several environmental resources such as water and energy utilization, and the level of dust, noise and waste on the environment. Through EMA utilization, especially PEMA indicators, the management is able to specify the company's impact on different environmental perspectives in a quantitative approach, thus providing objective and transparent evidence regarding several environmental aspects.

4. Results and discussions

EMA is a strategic management accounting tool that provides valuable insights to the decision making regarding several environmental issues. With EMA implementation management is able to define specific environmental factors that traditional management accounting fails to define. The company's management, having real and accurate data, now has the opportunity to make strategic and sustainable decisions. Through the identification of several environmental parameters Herba Fructus Ltd. was able to optimize the environmental costs by investing in greener technologies and equipment that enables increased processing capacities and reduction of waste derived from the processed herbs simultaneously. It is estimated that within the annual processing capacities of Herba Fructus Ltd., the reduction of waste derived from approximately 2.400 tons of processed raw materials, has decreased significantly. From a previous level of 13% to about 4-6% annually. This improvement not only mitigates environmental pollution but also enhances the overall efficiency of raw material processing. Regarding financial considerations, after EMA implementation it is estimated that financial expenses regarding energy and water consumption are reduced from 25,000 euros to 4,500 euros per year, and from 3200 euros to 960 euros respectively. It is worth noting that the data from the return on investment in photovoltaic panels and the wastewater treatment plant is very positive, respectively ROI=3.6 years for the photovoltaic panels and ROI=6.2 years for the water well and treatment plant.

Apart from reducing environmental costs and the company's impact on environment, EMA has played a pivotal role in assisting the company to obtain several key environmental licenses that enables the Herba Fructus Ltd. to operate in international markets. The obtaining of environmental licenses represents a critical milestone for the company that not only legitimizes its operations within regulatory framework, but also enhances the company's potential to operate in new international markets and also increasing its reputation among competitors. Although in the long run EMA and environmentally friendly practices reduce operational costs by increasing input and output efficiency, it is essential to emphasize that one of the main disadvantages in EMA implementation lies in the high initial investment cost. Such investments often require several years before yielding returns, which can pose a significant barrier to its implementation.

Another challenge in the process of EMA implementation is the lack of a standardized accounting model that makes EMA implementation subjective to individual perspectives, skills and capabilities of each accountant. It is worth emphasizing that EMA implementation represents significant challenges for accountants due to the lack of a common standardized reporting framework. These challenges are further compounded by the need to develop the necessary expertise in a context where training opportunities in this filed remain limited.

References

- Aragón-Correa, J. A., Hurtado-Torres, N., Sharma, S., & García-Morales, V. J. (2008). Environmental strategy and performance in small firms: A resource-based perspective. *Journal of Environmental Management*. <https://doi.org/10.1016/j.jenvman.2006.11.022>
- Bansal, P., & Roth, K. (2000). Why companies go green: A model of ecological responsiveness. *Academy of Management Journal*. <https://doi.org/10.2307/1556363>

- Claver-Cortés, E., Molina-Azorín, J. F., Pereira-Moliner, J., & López-Gamero, M. D. (2007). Environmental strategies and their impact on hotel performance. *Journal of Sustainable Tourism*. <https://doi.org/10.2167/jost640.0>
- Gale, R. (2006). Environmental costs at a Canadian paper mill: a case study of Environmental Management Accounting (EMA). *Journal of Cleaner Production*. <https://doi.org/10.1016/j.jclepro.2005.08.010>
- Haruna, M. A., & Mahmood, S. (2018). Impact of Energy Consumption and Environmental Pollution in Malaysia. *Energy Economics Letters*. <https://doi.org/10.18488/journal.82.2018.51.31.43>
- Henri, J. F., & Journeault, M. (2018). Antecedents and consequences of eco-control deployment: Evidence from canadian manufacturing firms. *Accounting Perspectives*. <https://doi.org/10.1111/1911-3838.12168>
- Jasch, C. (2008). Environmental and Material Flow Cost Accounting: principles and procedures. In *Journal of Chemical Information and Modeling*.
- Johnstone, L. (2018). Theorising and Modelling Social Control in Environmental Management Accounting Research. In *Social and Environmental Accountability Journal*. <https://doi.org/10.1080/0969160X.2017.1422778>
- Lu, M. T., Hsu, C. C., Liou, J. J. H., & Lo, H. W. (2018). A hybrid MCDM and sustainability-balanced scorecard model to establish sustainable performance evaluation for international airports. *Journal of Air Transport Management*. <https://doi.org/10.1016/j.jairtraman.2018.05.008>
- Mancini, M. S., Galli, A., Niccolucci, V., Lin, D., Bastianoni, S., Wackernagel, M., & Marchettini, N. (2016). Ecological Footprint: Refining the carbon Footprint calculation. *Ecological Indicators*. <https://doi.org/10.1016/j.ecolind.2015.09.04>

FINTECH INTEGRATION AND COOPERATION WITH TRADITIONAL BANKS CASE OF STUDY, ALBANIA

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Abstract

Financial technologies (fintech) have completely transformed the banking sector. In this entirely new environment, numerous initiatives have also been undertaken in the Albanian market, and work continues on new projects within the framework of implementing a multi-channel strategic model to strengthen the client–bank relationship toward an increasingly virtual reality. This service aims to minimize time loss and reduce the bureaucratic aspects of traditional banking.

This study presents a comprehensive analysis of the fintech ecosystem, examining its impact on traditional financial services, the factors influencing its growth, and its implications for financial institutions and consumers. Furthermore, through this study, it will be concluded how digital transformation can create a new banking model based on the provision of banking services without intermediation or direct contact with bank employees, allowing customers to access services through information technology.

Objectives

- To give an overview of the Fintech implementation in the Albanian banking system.
- To highlight their importance in the performance of the banking institution.
- To highlight their importance in system performance and stability of the entire system.

Key Words: Fintech, Banking System, Performance, Bank.

JEL Classification: G21, G 23, O3

METODOLOGY

The methodology applied in the preparation of this study is primarily based on the analysis of scientific articles and papers, as well as on doctrinal viewpoints, both Albanian and foreign. The main research methods employed are deductive and inductive, as the study focuses on interpreting existing literature and analyzing the current situation of traditional banks in relation to Fintech companies in Albania.

Additionally, empirical and comparative analysis methods have been used in addressing specific issues of the study.

List of abbreviation:

FINTECH- Financial Technology

BoA-Bank of Albania

GDP-Gross Domestic Product

OECD- Organisation for Economic Co-operation and Development

INTRODUCTION

Banking system in Albania remains the most important sector of the financial system. Its assets also comprise a significant percentage of GDP, thus showing the huge impact it has on the economy. He generally had a positive performance. He presents no liquidity problems despite the global financial crisis. Also profitability situation was satisfactory rate. Capitalization is also not a problem because adequacy ratio continues to remain above the minimum required. Return on equity and assets is at satisfactory levels. A major problem that display are the increase of NPL. The results of the stress tests indicate that the banking sector as a whole remains stable, however there are some problems with some individual banks.

Albanian banking system is not too integrated into international markets. This is one of the main reasons that he is generally protected from risks arising as a result of regional and global developments. The growth rate of the Albanian economy has declined, but remains positive. Fiscal stimulus implemented through fiscal policy instruments, monetary accommodation, as well as the stability of the banking system have been key factors to maintaining positive growth rates.

The issue of financial stability must be understood as everyone's duty and not a matter of one or several institutions. Financial stability is a public good, which serves the long-term development of the country. The sustainability of the banking system is very important, so it is left in hand of most appropriate and independent institutions. In Albania, these institutions are Bank of Albania, Ministry of Finance and the Deposit Insurance Agency.

The high degree of foreign ownership has injected banking experiences and best practices in the domestic financial system, along with modernization and innovation through high technology products. Most importantly, they have helped to establish high standards in organizational practices and corporate governance. CG covering various disciplines, including finance, accounting, law and jurisprudence, management, business ethics and policy.

The internet and digital technologies are transforming our daily lives at the pace and scale of a true revolution. Fintech has followed a fascinating trajectory over the past 15 years, and examining the history of the sector alongside banks provides a clear picture. This new digital perspective enables broader access to all types of financial services.

By downloading a banking application on your smartphone, today any individual—without being physically present at a bank—can make payments of various amounts and forms, both domestically and internationally. This has significantly contributed to reducing the use of cash and lowering costs for users.

The financial crisis of 2007–2008 had a profound and long-lasting impact on banks. It exposed weaknesses in the financial system, led to significant government interventions, and triggered fundamental changes in the way banks operate and are regulated. The lessons learned from this crisis continue to shape the banking industry and its approach to risk management and financial stability. Restoring trust with clients and investors became a long-term challenge that persists to this day.

Technology has had a transformative impact on the banking system over the past decades. This impact has been multifaceted, affecting how banks operate, deliver services, interact with

customers, and manage their operations. The main reason for undertaking digital transformation is to improve business performance from the perspectives of effectiveness, efficiency, and cost optimization.

The term Fintech derives from the combination of two complementary fields: financial services and technology-based solutions. The word “fintech” has been included in the Oxford Dictionary as: “computer programs and other technology used to support or enable banking and financial services.” New innovations such as artificial intelligence, machine learning, blockchain, cryptocurrencies, and online banking—collectively known as fintech—have revolutionized banking operations and services (Stulz, 2019).

The year 2017 witnessed a large number of announced partnerships between banks and Fintech companies, particularly in areas such as AI, robotics, and blockchain. So far, these players have focused on specific vertical segments of the banking sector, such as payments and transactional activities, lending, and investments, where operational risks prevail. They have managed to capture significant market shares and position themselves within the competitive landscape as a new alternative to traditional banks. However, the possibility of “co-opetition” (competitive collaboration) between these players has already begun to emerge.

According to a recent study by McKinsey, “...banks that lag behind in digitalization may experience declines in net profits of up to 35%, while leaders could achieve profit increases of around 40% or more.” However, to achieve this, banks must come to terms with the fact that digitalization in banking is not a choice or an option; rather, it is an existential decision, paradoxically made beyond the banks’ own discretion.

DIGITAL TRANSFORMATION

The Second EU Payment Services Directive (PSD2) shifted the focus toward fostering technological innovation and reshaping the industry. The directive primarily aims at consumer protection and the promotion of payments through online banking.

Financial and banking institutions have recognized the significant opportunities that new technologies offer in order to maintain their traditionally dominant role in the global economic system and to position themselves within a context of continuous and rapid change. This can be observed in two main aspects.

First, **digitization** refers to an optimization opportunity, involving the use of digital tools and instruments that make existing resources and processes more effective and efficient, as well as optimize them. This approach can lead to cost reduction and increased business agility.

Second, **digitalization** represents a business opportunity and involves the use of digital assets and capabilities to create new value-added services for consumers, leading to differentiation, innovation, and new revenue streams. Digitalization creates new value based on digital assets and capabilities. Most banks are currently heavily engaged in the first aspect, but now have the opportunity to further develop the second. Digitalization is also associated with the transformation of people’s preferences, practices, the way we purchase, consume information, make decisions, and interact with each other, the state, and businesses.

As technology continues to advance at an unprecedented pace, organizations must equip themselves not only to adapt but also to thrive in this digital ecosystem. Digital transformation stands as a beacon of opportunity, enabling organizations to innovate, optimize, and deliver value in ways previously unimaginable.

DIGITAL BANKING AND ONLINE SERVICES

Digital banks and online services have become an integral part of the modern financial landscape, offering numerous benefits to consumers and businesses. First, technology in

banking has always had the power to influence the foundations of the business, such as information and risk analysis, distribution, monitoring, and processing (Llewellyn, 1999). Current digital technologies not only have the power to improve efficiency and effectiveness in services but have also begun to exert increasing influence on banking products and delivery methods (European Central Bank, 1999). Digitalization also contributes to innovation, leading to further improvements in profitability. Today, a company's ability to adapt to technology and exploit its potential depends on its capacity to translate these benefits into new products and services, processes, and business models, as well as to ensure and enhance its competitiveness. Through the use of social networks, forums, and discussion platforms, customers have become more aware in choosing the products and services available, constantly seeking greater personalization. New technologies enable not only the personalization and simplification of existing banking products and services but also the development of new products, such as online consulting services and digital wallets. More specifically, we refer to the following elements.

A. Mobile Banking

The number of digital banking users in the United States is expected to increase steadily between 2021 and 2025. Starting from approximately 197 million users in March 2021, the number is projected to reach nearly 217 million by 2025.

Mobile banking refers to the provision and use of banking and financial services through mobile telecommunication devices. The range of services may include transactions for banking or personal investments, account management, and access to personalized information.

Advantages include:

- **Time-saving:** Instead of visiting a bank, users can check balances, schedule and receive payments, transfer money, and manage accounts on the go.
- **Increased efficiency:** Mobile banking functions are practical, efficient, and competitive. It reduces long waiting times in bank branches and minimizes paperwork for both bankers and clients.
- **Security:** Generally, reliable mobile banking applications offer strong security features, such as SMS verification codes to authorize payments. Mobile banking is often considered even more secure than online/internet banking.
- **Easy access to finances:** Users can access their financial information beyond working hours, even through simple phone communication with the bank.

Disadvantages include:

- **Security risks:** If a mobile device is hacked or lost, criminals may gain access to sensitive banking information such as PINs.
- **Dependence on internet access:** Most mobile banking applications require an internet connection, which may limit access for individuals in rural areas with connectivity issues.

B. Blockchain Technology

The technical definition of blockchain is a “decentralized and cryptographically secure ledger of transactions.” Thanks to this innovation, various forms of collaboration can benefit from network capabilities, whether simple payments or exchanges of goods and services. This technology uses a computer network, a shared public ledger, and encryption to verify and securely record transactions.

Blockchain technology finds application in cross-border payments, as the use of a shared ledger facilitates the alignment of information among involved parties. Once implemented, this technology will enable banks to process payments faster and with greater accuracy, reducing operational costs and handling exceptions more efficiently.

C. Peer-to-Peer Lending Platforms

Peer-to-peer (P2P) banking involves financial transactions conducted directly between individuals rather than through banks. This includes payments and loans that connect users through dedicated platforms. P2P banking is typically carried out online or via mobile applications.

With this system, users can link their bank account, credit card, or debit card to an online account. Applications such as Cash App and Venmo are examples of P2P payment systems.

Although there is no need to physically visit a bank, users can transfer funds directly from their accounts more easily than arranging a traditional bank transfer. Most P2P payment systems require both parties to use the same application, although they do not need to be customers of the same bank.

FINTECH IN ALBANIA

Although Albania may appear to be a small country for such a revolution, competition arising from external challenges and practices should not be overlooked by banks. In this context, it is vital for banks in general, and Albanian banks in particular, to formulate a winning digital strategy—either individually or collectively—in order to successfully face the digital “tsunami” that will undoubtedly affect every aspect of banking operations, from product development and risk management to capital requirements and human resource management.

In Albania, the use of online banking emerged later and developed at a slower pace due to various economic, political, and social factors. The country faced numerous challenges that hindered the adoption and penetration of such systems, including poor internet quality, high levels of informality, and a lack of information and banking culture. Therefore, the slow development of banking services was largely influenced by the system itself, which limited the use of online banking.

Some of the largest banks in the country are currently undertaking significant investments in this direction, including BKT, OTP Bank Albania, Raiffeisen Bank, and Tirana Bank. Tirana Bank uses the Winbank Internet Banking platform, an integrated online banking service that provides alternative transaction channels such as web banking, mobile banking, phone banking, services for credit cards, and alert notifications for card users. The use of this electronic platform enables customers to perform full banking transactions 24 hours a day, 7 days a week, making banking operations more accessible and convenient. Tirana Bank was awarded “Best Consumer Internet Bank” in Albania in 2014 by Global Finance, continuing its successful track record in digital banking.

The National Commercial Bank (BKT) has established BKT Pay, a company aimed at operating as an electronic money institution and providing payment services.

Meanwhile, Raiffeisen Bank, through its Raiffeisen ON platform, has taken online banking to another level by enabling fast and efficient interaction for almost all services that are also offered physically.

The fintech digital investment market in Albania is expected to grow further during the period 2023–2027, with projections estimating the market volume to reach approximately 157.80 million USD by 2027 (Statista).

On the one hand, Albania still has progress to make in terms of financial inclusion, as recent estimates suggest that only about 60% of the adult population holds a bank account.

On the other hand, the fintech model aims to compete with traditional banking services, particularly targeting younger generations, who often perceive banks as more bureaucratic institutions and slower in adopting modern solutions.

FINTECH AND THE PANDEMIC IN ALBANIA

In addition to financial challenges, at the end of 2019 Albania faced two consecutive earthquakes, which further complicated its macroeconomic outlook. Before fully addressing the effects of these shocks, the Albanian economy—like the global economy—was confronted with the COVID-19 pandemic and the recession it caused. This unprecedented situation made it necessary to coordinate an equally unprecedented policy framework among various institutions, not only in conceptual terms but also in the selection and coordination of monetary, fiscal, and financial policy instruments. In a sense, the measures undertaken extended into new, previously unexplored territory. The Bank of Albania aimed to support economic activity by lowering the key interest rate and other operational monetary policy rates, as well as by providing unlimited liquidity to the economy and the banking system.

History has shown that crises (such as the global financial crisis of 2008) serve as catalysts for accelerating the shift of consumers from traditional financial services toward the FinTech sector. Despite the pain and losses caused by COVID-19 worldwide, the pandemic provided the FinTech sector with an extraordinary opportunity to rapidly expand its services, geographic reach, and public image. Achievements that would have otherwise taken years were realized within just a few months due to the pandemic. Adaptability and agility are two key competitive advantages of this industry, both of which are essential in navigating economic uncertainty.

CONCLUSIONS

1. The global financial crisis of 2007–2008 served as a turning point for the banking system, exposing structural weaknesses and prompting significant reforms in risk management and financial stability.
2. Digital transformation is no longer a choice for banks, but a necessity for survival and competitiveness in an increasingly dynamic and technology-driven environment.
3. FinTech has brought significant changes to the provision of financial services, increasing efficiency, reducing costs, and enhancing customer experience through innovation and personalization.
4. In Albania, the development of digital banking and FinTech has been slower compared to developed countries, due to factors such as technological infrastructure, high levels of informality, and a lack of financial literacy.
5. However, in recent years there has been a noticeable increase in investments by major banks in digital platforms, indicating a clear shift toward innovation and technological transformation.
6. The COVID-19 pandemic acted as a strong catalyst for accelerating the adoption of digital and FinTech services, changing consumer behavior and increasing demand for online services.

7. Collaboration between traditional banks and FinTech companies (co-opetition) is becoming increasingly important, creating opportunities for joint development and improved financial services.
8. Despite positive developments, Albania still faces challenges in terms of financial inclusion and the full adoption of digital technologies, particularly in rural areas.
9. The future of the banking sector in Albania will depend on its ability to integrate new technologies, build customer trust, and develop flexible and sustainable business models.

RECOMMENDATIONS

1. Banks should increase investments in digital transformation, including the improvement of technological infrastructure and the development of secure and user-friendly platforms.
2. Collaboration between traditional banks and FinTech companies should be encouraged in order to develop innovative products and services that meet customer needs.
3. Financial institutions and relevant authorities should work to enhance financial and digital literacy among the population, with the aim of increasing the use of online services.
4. It is necessary to improve internet infrastructure and accessibility in rural areas to ensure broader financial inclusion.
5. Banks should strengthen cybersecurity measures to protect customer data and increase trust in digital services.
6. Regulatory authorities should establish an appropriate and flexible legal framework that supports innovation while maintaining financial stability.
7. The development of personalized products for customers should be encouraged through the use of technologies such as artificial intelligence and data analytics.

REFERENCES

- Statista Search Department *Market capitalization of largest fintech companies worldwide in 2022* [Infographic]. Statista [Largest fintech companies by market cap 2022 | Statista](#)
- Statista Search Department *Number of fintech users worldwide from 2017 to 2027, by segment* [Infographic]. Statista [Global fintech users by segment 2017-2027 | Statista](#)
- Wewege L, Thomsett M.,(2018) *The Digital Banking Revolution* (aksesuar më 13.08.2023)
- Walker Th., Nikbakht E., Kooli M., *The Fintech Disruption How Financial Innovation Is Transforming the Banking Industry*
- Freedman. Roy (2006) *Financial Technology*
- Zotaj E., Digjitalizimi dhe sistemi bankar shqiptar, Bankieri Nr.19, Prill 2016.
- Dasho A., Bankingu Digjital, Vala e së ardhmes, Bankieri Nr.19, Prill 2016.
- Meka. E., Digjitalizimi: Sukses apo rrënim për industrinë bankare Nr.19, Prill 2016
- [Revolucion në sistemin e pagesave – shkrim i EasyPay në Revistën Bankieri - EasyPay](#)
- <https://bankacredins.com/>
- <https://www.worldbank.org/en/topic/financialinclusion/brief/achieving-universal-financial-access-by-2020>; UFA2020 Overview: "Universal Financial Access by 2020", ITetor, 2018.
- McNamara S., Deloitte, Blockchain applications in banking, 2016.
- Deloitte, Blockchain: Enigma, Paradox, Opportunity, 2016.
- Nicoletti B.,(2017) *The Future of Fintech*

THE USE OF INFORMATION TECHNOLOGY IN COMMERCE (E-COMMERCE)” CASE OF STUDY: ALBANIA

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Abstract

The use of Information and Communication Technology (ICT) in the commercial field plays a fundamental role in modernizing and increasing the efficiency of services. Technology helps businesses carry out operations faster, more accurately, and at lower costs, while also improving the customer experience.

E-commerce would not exist without technology, as it is the foundation that enables all electronic commerce processes to function. Technology provides the infrastructure, tools, and systems that make online buying and selling possible, as well as the management of transactions, payments, and logistics. In fact, every step of the e-commerce process—from product presentation on a website, online payment, delivery, to customer service—is made possible by technology. The COVID-19 pandemic made this connection even more evident, forcing businesses to undergo digital transformation and consumers to adapt to online shopping.

Objectives

- *To give an overview of the E-commerce in Albania.*
- *To highlight their importance in the performance of the banking institution.*
- *To highlight their importance in system performance and stability of the entire system.*

Key Words: E-Commerce, E-Marketing, Banking System, Hybrid Models Post-COVID

JEL Classification: G21, L80, O3

METODOLOGY

The methodology applied in the preparation of this study is primarily based on the analysis of scientific articles and papers, as well as on doctrinal viewpoints, both Albanian and foreign. The main research methods employed are deductive and inductive, as the study focuses on

interpreting existing literature and analyzing the current situation of traditional banks in relation to Fintech companies in Albania.

Additionally, empirical and comparative analysis methods have been used in addressing specific issues of the study.

INTRODUCTION

The payment system is an organized mechanism that enables the execution, transfer, and processing of payments between individuals, businesses, and financial institutions. It includes all the rules, procedures, technologies, and institutions that make it possible to transfer money from one person to another in a secure, fast, and efficient way.

The payment system is the “network” that allows money to move from one account to another, whether through banks, cards, mobile phones, internet banking, electronic transfers, or cash. It includes several elements such as:

Financial institutions: These are organizations that participate in carrying out and guaranteeing payments. These institutions ensure that transactions are conducted in a reliable and controlled manner. They include: commercial banks, payment and electronic money institutions, and the Bank of Albania, which supervises and regulates the payment system in the country.

Payment instruments: These are the tools used to carry out payments. The development of technology has significantly increased the use of electronic instruments compared to physical cash. Some of the most commonly used instruments are: bank cards (debit and credit), bank transfers (domestic and international), direct debit (automatic withdrawal from an account), mobile banking (payments via phone), internet banking (online payments), and cash.

Technical infrastructure: This includes the technological base that enables the functioning of the payment system, such as electronic payment platforms, banking computer systems, communication networks (internet and banking networks), and real-time transaction processing systems. Without this infrastructure, modern payments would not be possible.

Rules and procedures: The payment system operates based on laws and regulations established and supervised by relevant financial authorities, which guarantee:

- Transaction security
- Transparency and reliability
- Consumer protection
- Prevention of fraud and money laundering

INFORMATION AND COMMUNICATION TECHNOLOGY IN COMMERCIAL SERVICES

The use of Information and Communication Technology (ICT) in the commercial field plays a fundamental role in modernizing and increasing the efficiency of services. Technology helps businesses carry out operations faster, more accurately, and at lower costs, while also improving the customer experience.

E-commerce would not exist without technology, as it is the foundation that enables all electronic commerce processes to function. Technology provides the infrastructure, tools, and systems that make online buying and selling possible, as well as the management of transactions, payments, and logistics. In fact, every step of the e-commerce process—from product presentation on a website, online payment, delivery, and customer service—is made possible by technology. The COVID-19 pandemic made this connection even more evident,

forcing businesses to undergo digital transformation and consumers to adapt to online shopping.

ASPECTS OF TECHNOLOGY USE IN E-COMMERCE.

Technology is not simply a support for E-commerce; it is an essential element that enables the development, security, and expansion of electronic commerce, making this economic model increasingly vital in the modern world. Its use and importance can be seen in several aspects:

Information and data management: Technology enables the storage, processing, and analysis of business data in a secure and organized manner. Computer systems, inventory management programs, customer databases, and sales software help businesses make accurate and quick decisions. Effective information and data management brings many benefits:

- Increases accuracy and reliability of information
- Reduces human errors and operational costs
- Improves the quality and speed of decision-making
- Increases efficiency and productivity
- Helps improve customer relationships

Electronic sales systems (POS): Point of Sale (POS) systems are among the most important technologies in commercial activity. They include devices and software such as electronic cash registers, barcode scanners, and sales management software that automate the entire sales process. These systems ensure accurate transaction recording, automatic calculation of prices, taxes, and discounts, and instant invoice generation. They also reduce human errors and speed up customer service, improving the shopping experience. Additionally, POS systems provide real-time reports on sales, inventory, and product performance, helping managers make informed and strategic decisions.

Digital communication with customers: Digital communication has become a key element in relationships between businesses and customers. Through tools such as email, official websites, social media, and online communication platforms, businesses can interact directly with customers at any time. Continuous and personalized communication helps build stronger relationships, increases trust, and improves the company's image in the market. These channels are used for:

- Promoting products and services
- Informing customers about offers, discounts, and updates
- Providing customer support and service

E-commerce and online shopping: E-commerce has revolutionized the way business is conducted. Through online platforms, businesses can sell products and services without geographical limitations, reaching a much larger number of customers. This form of trade increases convenience for consumers and expands the market for businesses, contributing to higher revenues and competitiveness. Customers can browse product catalogs online, compare prices and features, and receive products at their doorstep.

Automation of work processes: Automation is one of the greatest benefits that technology brings to business. It involves using systems and software to automatically perform tasks without continuous human intervention. Automation helps reduce operational costs, increase efficiency, and minimize errors, allowing employees to focus on more strategic tasks. Processes that can be automated include:

- Order management
- Supply and inventory control
- Invoicing and payments
- Internal communication among staff

Security and data protection: In an increasingly digital environment, data security is a top priority for every business. Modern technological systems use advanced mechanisms to protect information from loss, theft, or misuse. These measures ensure the protection of business and customer data, increase reliability, and help comply with legal standards for privacy and information security. Key security measures include:

- Use of strong passwords and authentication
- Data encryption during transmission and storage
- Creating backup copies
- Use of antivirus programs and firewalls

ADVANTAGES OF USING TECHNOLOGY

1. **Improvement of operational efficiency:** Technology enables the automation of business processes, reducing time and costs in production and services. For example, inventory management software, ERP systems, and logistics applications help optimize resource usage. It also reduces waste and costs, contributing to sustainable economic and environmental development.
2. **Increased access to markets and customers:** The internet, e-commerce, and digital platforms allow businesses to reach global consumers without geographical barriers. Market expansion helps increase revenue and diversify business resources, reducing dependence on limited markets.
3. **Data-driven decision making:** Analytical software, Big Data, and Artificial Intelligence help businesses analyze customer behavior, market trends, and internal performance. Data-based decisions are more effective and help predict risks, increase productivity, and ensure financial sustainability.
4. **Development of new products and services:** Technology enables innovation in product design and development, such as 3D printing, digital simulations, and prototype testing platforms. It creates opportunities for more sustainable, environmentally friendly products tailored to customer needs.
5. **Reduction of environmental impact:** Green technologies and automation help businesses reduce energy use, minimize waste, and manage supply chains more sustainably. This improves environmental sustainability and enhances the company's image among consumers and partners.
6. **Flexibility and adaptability:** Technology allows businesses to quickly adapt to market changes, economic crises, or new consumer needs. Online platforms, remote work, and cloud systems enable continuous operations without interruptions, increasing long-term resilience and sustainability.

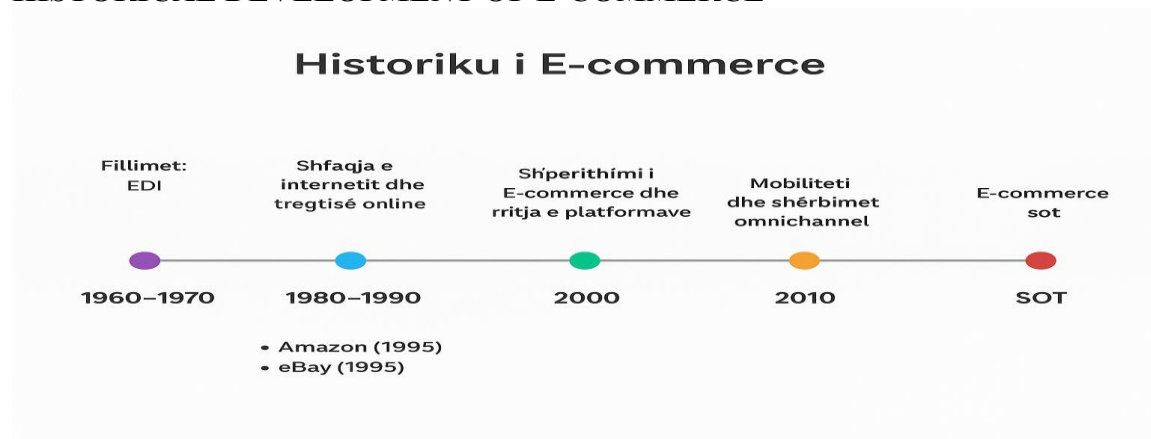
Technology is a key driver of efficiency, innovation, market growth, and sustainability. It not only helps increase profits but also supports the development of a sustainable business from an economic, social, and environmental perspective.

E-COMMERCE (ELECTRONIC COMMERCE)

E-commerce includes all commercial activities conducted through the internet and digital technologies. It is not limited to online product sales but represents a complete system that supports the entire cycle of a commercial transaction – from product promotion, to ordering, payment, delivery, and after-sales service.

Thanks to technology, E-commerce allows businesses to expand their market beyond physical boundaries and enables customers to purchase products quickly, safely, and conveniently from anywhere at any time.

HISTORICAL DEVELOPMENT OF E-COMMERCE



Beginnings (1960s–1970s) The concept of e-commerce began with the development of Electronic Data Interchange (EDI) systems, which enabled companies to send orders and invoices electronically.

This system was mainly used by large companies to manage supply, inventory, and the flow of information more efficiently.

1980s–1990s: Emergence of the Internet and Online Commerce With the spread of personal computers and early internet connections, some companies began creating electronic catalogs and simple methods for online sales. In 1991, the internet was opened for commercial use, creating opportunities for buying and selling online for the first time.

1990s: Growth of E-commerce for Consumers During this period, companies started building websites for direct sales to customers (B2C – Business to Consumer). Early examples include:

- Amazon (1995): started as an online bookstore and later expanded into many product categories.
- eBay (1995): an online auction platform where consumers could sell and buy products.

2000s: Expansion of E-commerce and Growth of Platforms Wider internet adoption, online payment systems (PayPal), and the widespread use of credit cards helped the development of

online commerce. Global platforms such as Alibaba and Shopify created opportunities for small and medium-sized businesses to sell their products online on a global scale.

2010s: Mobility and Omnichannel Services The use of smartphones and mobile applications made online shopping faster and easier. Businesses began integrating physical and online sales (omnichannel retail) to offer a unified customer experience.

Today (2020s–present) E-commerce has become an integral part of the global economy, with widespread use of online shopping, electronic payments, digital marketing, and smart logistics. Modern technologies such as artificial intelligence (AI), augmented reality (AR), and data analytics are improving service personalization and the efficiency of online commerce processes.

KEY ELEMENTS OF E-COMMERCE

1. Online sale of products and services.

This is the basic function of e-commerce. Customers can browse product catalogs, compare prices and features, and choose the product that best suits their needs. This process increases convenience and saves time for consumers. Businesses offer their products and services through online sales channels such as websites (webshops), mobile applications, or digital sales platforms.

2. Electronic marketing (E-marketing).

E-marketing is a very important part of e-commerce, as it helps businesses attract and retain customers. Through strategies such as online advertising (Google Ads, banners), social media promotions, email marketing (notifications and offers for customers), and SEO (search engine optimization), businesses can reach a wider audience and increase their visibility in the market.

3. Order and online payment management.

An efficient e-commerce system includes mechanisms that facilitate the purchasing process from the provider to the customer. This increases customer trust and makes the purchasing process more convenient and faster. These systems enable businesses to automatically record orders and allow customers to make secure payments through bank cards, PayPal, bank transfers, or other electronic methods, as well as receive immediate order confirmation.

4. Inventory and warehouse management.

Inventory management systems are integrated with online platforms and help track stock in real time, avoiding shortages or surpluses in the warehouse. They also provide automatic updates on product availability. This ensures that customers have accurate information about products and helps businesses better plan their supply.

5. Logistics and delivery.

After an order is placed, the delivery process plays a crucial role. A good logistics system ensures fast and secure delivery, directly impacting customer satisfaction. It includes processes from product packaging to transportation, distribution, and order tracking until it reaches the customer.

6. Online communication and customer service.

E-commerce relies heavily on digital communication with customers, as the entire relationship takes place virtually. For this reason, businesses use various forms of digital communication, such as online chat on official websites, email, communication apps, as well as review and rating sections. This communication helps resolve issues, provide information, and build a stable and long-term relationship with customers.

7. Electronic security and data protection.

Security is a critical element in e-commerce. Modern systems use advanced technologies to protect customers’ personal and financial information, such as data encryption, user authentication, and anti-fraud protection systems, thereby increasing customer trust and ensuring that transactions are carried out securely. Increases customer trust and ensures transactions are performed safely.

E-COMMERCE AND TRADITIONAL COMMERCE.

Traditional commerce relies on direct interaction and the physical presence of the customer, whereas electronic commerce operates via the internet, offering faster and wider access, with online payment and delivery options. It has several characteristics that differentiate it from physical commerce:

Feature	Physical Commerce	Electronic Commerce (E-commerce)
Location	Activities take place in stores, markets, or physical premises.	Activities take place online, through websites, apps, or digital platforms.
Service Hours	Limited by store opening hours.	24/7, customers can shop at any time.
Customer Interaction	Direct; customers can see and touch the product.	Indirect; customers view products through photos or online descriptions.
Payment Process	Mostly done with cash or cards on-site.	Done electronically: bank cards, digital wallets, online transfers, etc.
Inventory Management	Stock is managed physically in-store or in a warehouse.	Stock is tracked electronically, often in real-time, and linked to the online platform.
Marketing and Promotion	Done through physical ads, posters, product labeling.	Done through online ads, social media, email marketing, SEO.
Logistics and Delivery	Customers receive products directly in-store.	Products are delivered via mail, couriers, or delivery points.

It can be said without hesitation that E-commerce is a complex and integrated system that has transformed the way business is done. It offers significant opportunities for growth and development, allowing businesses to reach more customers and consumers to enjoy a faster and more convenient shopping experience.

E-COMMERCE AND COVID-19

During 2020, when the COVID-19 pandemic spread worldwide, daily life changed dramatically. Streets emptied, physical stores closed, and people had to stay home to protect their health. In this new reality, both businesses and consumers started seeking alternative ways to continue their activities.

Gradually, electronic commerce – E-commerce – took on an increasingly important role. It became a “bridge” between businesses and customers, allowing shopping and sales to continue without physical contact.

Many people, isolated at home, shopped online for the first time. They ordered groceries, clothing, electronics, and other essential products, avoiding outings and the risk of infection. Fear of physical contact and the need for safety pushed consumers toward a newer, more convenient shopping method.

On the other hand, businesses faced a major challenge. Closed stores and the absence of physical customers forced many to adapt quickly. Companies that had not previously been online created websites, social media profiles, and sales platforms to continue operating. This was a rapid digital transformation that would have taken years under normal conditions.

Over time, businesses realized that through E-commerce, they could reach not only local customers but also a wider market. This led to market expansion but also increased competition as more companies entered the online space. Many began adopting a hybrid model, selling both in physical stores and online.

Consumers also changed their habits. They developed more trust in online shopping, preferred electronic payments over cash, and increasingly relied on home delivery services. During the pandemic, there was also a greater focus on essential goods and health-related products.

Although the pandemic has passed, many of these changes remain. E-commerce is no longer just an alternative; it has become an integral part of everyday life and the modern economy.

E-COMMERCE CHALLENGES DURING COVID-19

As E-commerce grew rapidly during the pandemic, not everything was easy for businesses and consumers. Initially, it seemed like an ideal solution, but difficulties soon emerged.

Many customers had to wait longer than usual to receive their orders. Delivery delays became common due to overloaded and unprepared logistics networks. In some cases, orders were delayed by days or even weeks.

Businesses faced a sudden surge in demand, often exceeding their capacity. Many lacked sufficient staff, systems, or resources to handle the large volume of orders. This also caused supply issues, with some products being out of stock for extended periods.

Meanwhile, with increased online activity, the risk of fraud also grew. Some customers fell victim to fake websites or insecure transactions, sometimes losing trust. This highlighted that, alongside convenience, security remains a critical element in electronic commerce.

E-COMMERCE BENEFITS DURING COVID-19

Despite challenges, the pandemic also brought long-term positive changes. Businesses began investing more in technology and improving their digital systems. Digital transformation, once optional, became essential.

New E-commerce platforms emerged, more advanced and secure. Businesses learned to better integrate online and physical sales, creating a more complete customer experience.

Ultimately, the COVID-19 pandemic became a turning point for E-commerce. It accelerated development and permanently changed how people shop and businesses sell. Today, electronic commerce is no longer just an alternative but an inseparable part of the modern economy and everyday life.

BANKS AND E-COMMERCE

Banks play a central and irreplaceable role in the development and operation of E-commerce, as they are the main institutions that enable, process, and secure online payments. In electronic commerce, where every transaction occurs remotely and in real-time, banks act as trusted intermediaries between customers and businesses, ensuring payments are conducted safely, quickly, and efficiently.

During the COVID-19 pandemic, when shopping and business activities shifted largely online, banks became the pillars supporting electronic commerce. They provided secure and fast payments for customers via bank cards, mobile apps, and electronic platforms.

Businesses relied on banks to integrate payment systems on their websites, ensuring fund transfers and protection against online fraud. Beyond security, banks accelerated digital transformation, enabling E-commerce to function even during crises and expand after the pandemic. Today, they remain a key factor in E-commerce development and in building an increasingly digital economy.

Without banks, E-commerce could not operate, as every online purchase requires a reliable financial system for fund transfer. Banks are considered essential actors in this business model, serving as:

1. Intermediaries in online payments: In e-commerce, banks carry out the transfer of funds from the customer's account to the business (seller). This process occurs instantly or within a very short time, enabling the completion of online transactions. They connect customers' payment systems with online sales platforms, ensuring that each purchase is successfully completed.

2. Providers of electronic payment instruments: Banks provide all the tools used in e-commerce to make payments, such as bank cards (debit and credit), internet banking, mobile banking, electronic transfers, direct debit, and bank accounts where funds are held. These instruments form the basis of every online transaction and allow customers to pay easily and quickly.

3. Guarantors of security in online transactions: In e-commerce, security is an essential element. Banks implement advanced security measures to protect customers' financial data, such as data encryption, two-factor authentication (2FA), monitoring of suspicious transactions, and compliance with standards set by the Bank of Albania. These measures increase customer trust and minimize the risk of online fraud.

4. Integration with e-commerce platforms: Banks collaborate with businesses and online platforms by integrating payment systems (payment gateways) into their websites. This allows customers to make payments directly during the purchasing process without interruptions. This integration makes the shopping experience faster, simpler, and more professional.

5. Management of accounts and funds: In every online transaction, banks manage the accounts of customers and businesses. They ensure that funds are transferred accurately, recorded properly, and available for use. These accounts form the technical foundation that enables every purchase and sale in e-commerce.

6. Supporting the stability and reliability of online commerce: Banks contribute to the stability of the entire e-commerce system by ensuring that payments circulate smoothly without interruptions. They help maintain liquidity and fulfill the financial obligations of businesses. This increases the reliability of e-commerce and encourages more customers to use online shopping.

In E-commerce, banks are key actors that ensure the functioning of the entire payment process. They provide instruments, guarantee security, mediate transactions, and support E-commerce growth. Thanks to banks, E-commerce has become a safe, efficient, and increasingly used method for conducting transactions in the modern economy.

MARKET RESEARCH ON E-COMMERCE

This survey aims to collect detailed information on the use of E-commerce, consumer habits during the COVID-19 period, and the role of banks in facilitating online payments. Through this survey, it seeks to understand user behaviors, preferences, and challenges on online platforms, as well as to assess the importance of banks in securing and processing transactions. The survey is structured to comprehensively analyze:

- **User demographics:** age, gender, residence, and professional status.

- **Usage habits and frequency:** understanding how often and for what products users shop online.
- **Perception of security and ease of use:** including payment methods and trust levels in online platforms.
- **Impact of COVID-19:** identifying changes in shopping behavior and consumer adaptation to E-commerce during the pandemic.
- **Role of banks in online payments:** evaluating their importance in the security, efficiency, and reliability of financial transactions.

Within the framework of this study, the responses of 101 surveyed individuals were analyzed, who shared their opinions and experiences regarding the use of e-commerce. The demographic analysis shows that the majority of respondents are employed full-time. Around 70% belong to the 25–34 and 35–44 age groups, while the female gender dominates with 65% of participants. Additionally, most of them live in urban areas.

Regarding purchasing behavior, respondents are divided into two main groups: about 60% report making online purchases regularly, almost every week or every month, while 40% shop less frequently. The most preferred products for online shopping are clothing and footwear (around 75%), followed by household appliances and technological devices (around 30%).

An important finding is that almost all respondents prefer e-commerce due to the convenience it offers, time savings, and attractive offers. In the same line, about 90% consider the online purchasing process to be easy or very easy, and generally secure. The most commonly used payment method remains bank cards.

However, the main obstacles are related to delivery delays. This issue is also reflected in the suggestions provided by respondents, where the need for more careful selection of delivery operators is emphasized.

Regarding the impact of the COVID-19 pandemic, about 40% of respondents state that it has significantly influenced their purchasing habits, shifting them more toward online shopping compared to physical shopping. This trend continues to persist even today.

Finally, unanimously, respondents emphasize the important role of banks in the online payment system, appreciating their contribution in ensuring security and facilitating the process of electronic purchases.

In conclusion, in the appendices section, the link to the questionnaire will be provided, along with the responses presented in graphical form.

CONCLUSION

1. **Critical Importance of Payment Systems.** Payment systems are the cornerstone of modern economic functioning. They facilitate money circulation, increase transaction security, and reduce reliance on cash. Without these systems, economic activity would be slower and less secure.
2. **Technology as the Engine of E-commerce.** Technology is not just support; it is a key component of E-commerce. It enables information and data management, process automation, POS system integration, and digital communication with customers, enhancing efficiency and user experience.
3. **Strategic Advantages of Technology Use.** Using technology brings significant benefits: it improves operational efficiency, expands markets and customer reach, supports data-driven decision-making, promotes new product development, reduces environmental impact, and increases business flexibility.

4. **Impact of COVID-19 on E-commerce.** The pandemic permanently changed consumer behavior, increasing online shopping and electronic payments. Businesses that adapted quickly gained a competitive advantage, while those lacking digital systems faced challenges.
5. **Irreplaceable Role of Banks.** Banks act as trusted intermediaries in online transactions, provide various payment instruments, ensure data security, and support E-commerce development. Without banks, electronic commerce would be difficult and insecure.
6. **E-commerce Challenges During Crises.** Delivery delays, surges in demand, and online fraud risks highlighted the need for stronger logistics and security systems. The pandemic emphasized the importance of adaptation and digital innovation.

RECOMMENDATIONS

- **Strengthening Payment Systems.** Invest in transaction security (encryption, 2FA, continuous monitoring). Develop fast and user-friendly platforms. Educate consumers on safe use of electronic payment instruments.
- **Technological Integration and Development.** Automate business processes to increase efficiency. Use software for inventory management, Big Data, and analytics for more accurate decision-making. Improve POS systems and digital communication with customers.
- **Increasing Logistics and Operational Capacity.** Businesses should invest in inventory and supply chain management to handle unexpected demand.
- Online platforms should offer reliable and fast experiences for consumers.
- **Security and Data Protection.** Implement advanced mechanisms to protect client and business information. Strengthen legal and regulatory standards for privacy and data security.
- **Support and Collaboration with Banks.** Integrate payment systems with banks for a seamless and secure experience. Develop new payment instruments (mobile banking, e-wallets) and educate users. Support innovation and resilience during economic and pandemic crises.
- **Adopting Hybrid Models Post-COVID.** Businesses should combine online and physical sales for maximum flexibility. Adapt to new consumer behaviors and demands for safer and faster services.

Appendix

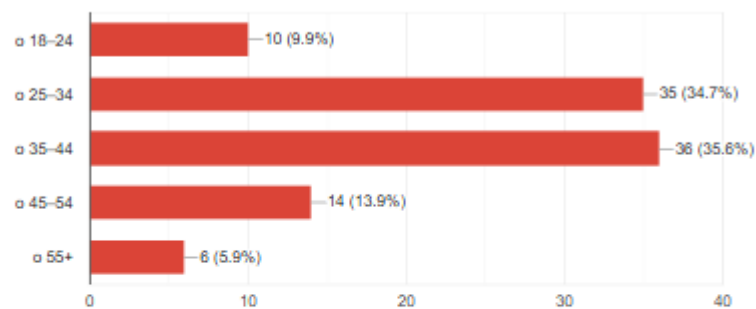
[Untitled form - Google Forms](#)

https://docs.google.com/spreadsheets/d/1Xb_JJCX1J5BQf1WvC2eFf3Q0znSGW1VggWwLbVHOyw/edit?usp=sharing

1- Sa vjeç jeni? (Zgjedhje e vetme)

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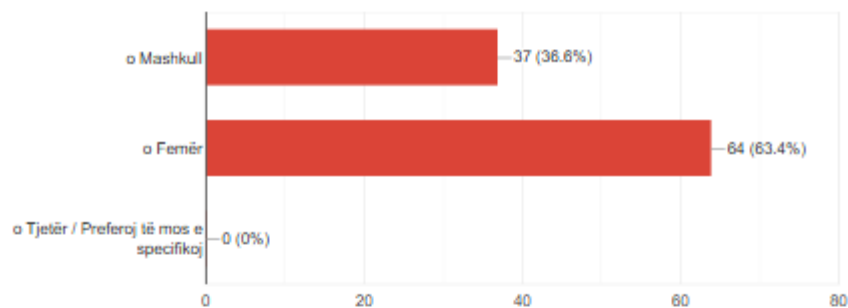
101 responses



2- Gjinia juaj: (Zgjedhje e vetme)

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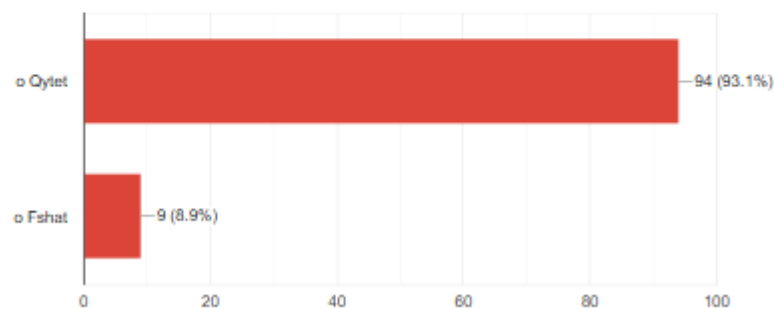
101 responses



3- Vendi ku jetoni: (Zgjedhje e vetme)

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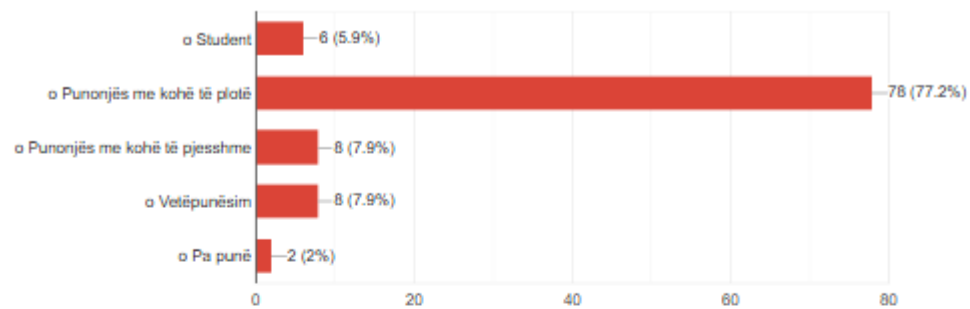
101 responses



4- Statusi profesional: (Zgjedhje e vetme)

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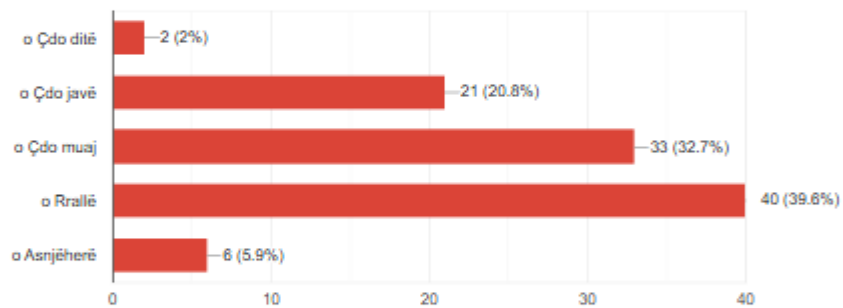
101 responses



5- Sa shpesh blini produkte online? (Zgjedhje e vetme)

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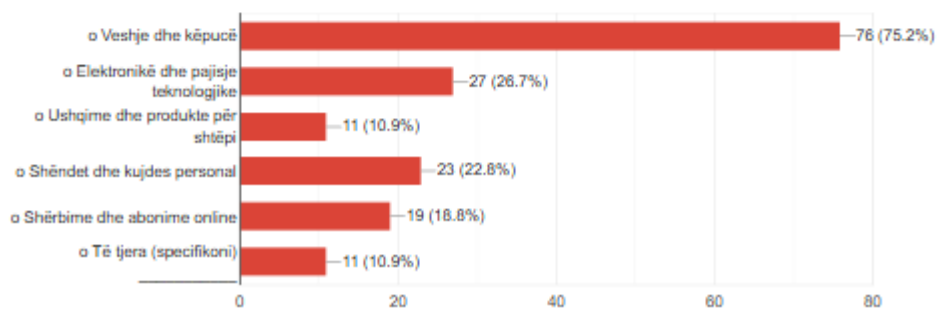
101 responses



6- Për çfarë lloj produktesh zakonisht blini online? (Shumëzgjedhje)

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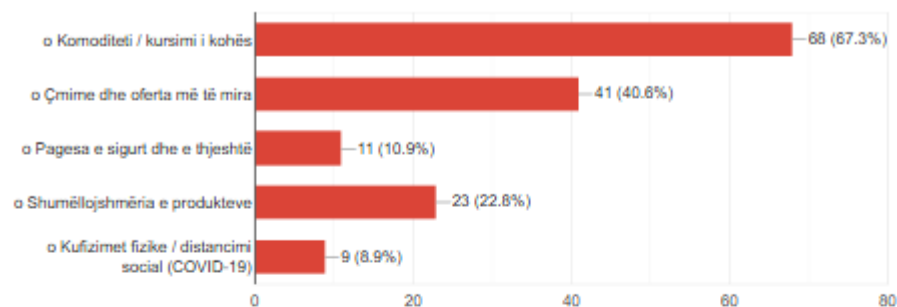
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7- Cilat janë arsyt kryesore që bëni blerje online? (Shumëzgjedhje)

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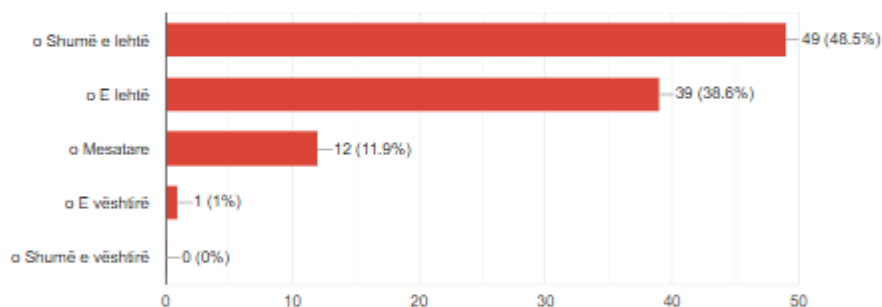
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8- Si e vlerësoni lehtësinë e përdorimit të platformave online? (Zgjedhje e vetme)

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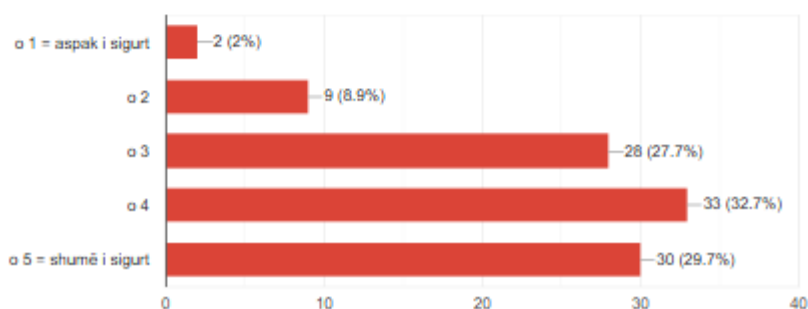
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9- Sa të sigurt ndiheni gjatë pagesave online? (Shkallë Likert 1–5)

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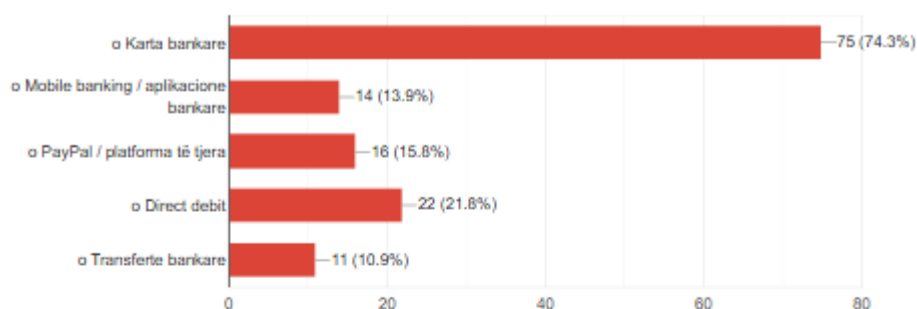
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10- Cilat metoda pagesash online përdorni më shpesh? (Shumëzgjedhje)

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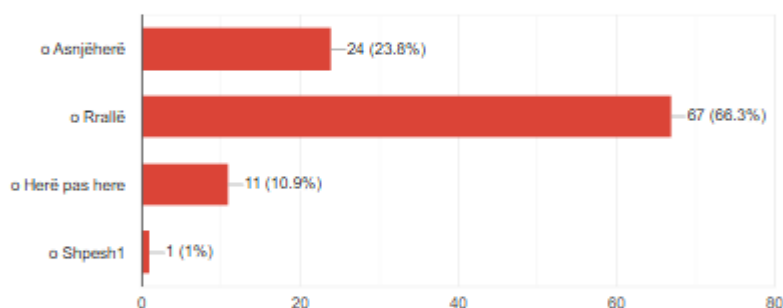
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11- Sa shpesh keni hasur probleme gjatë blerjeve online? (Zgjedhje e vetme)

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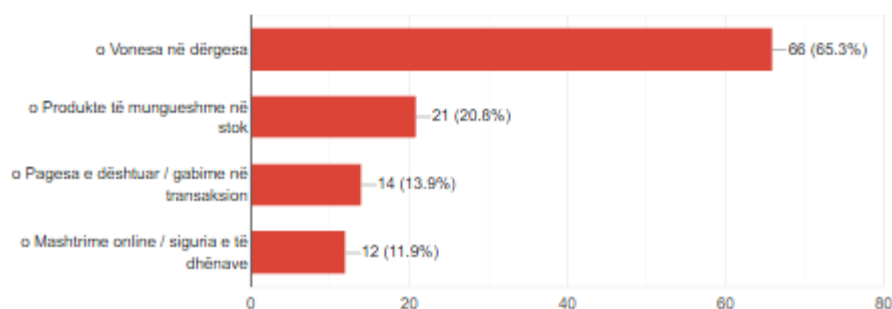
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12- Cilat probleme keni hasur më shpesh? (Shumëzgjedhje)

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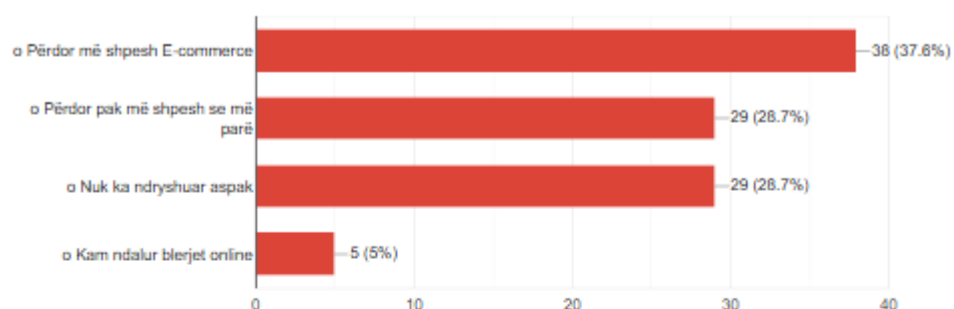
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13- Si ndikoi COVID-19 në zakonet tuaja të blerjeve online? (Zgjedhje e vetme)

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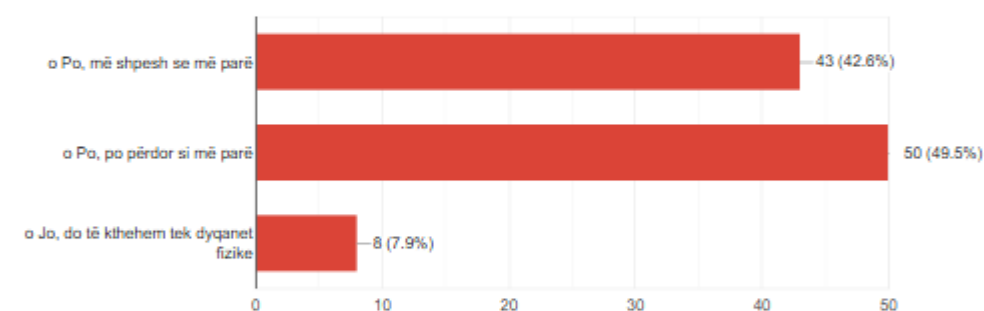
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14- Pas pandemisë, a mendoni të vazhdoni të përdorni blerjet online? (Zgjedhje e vetme)

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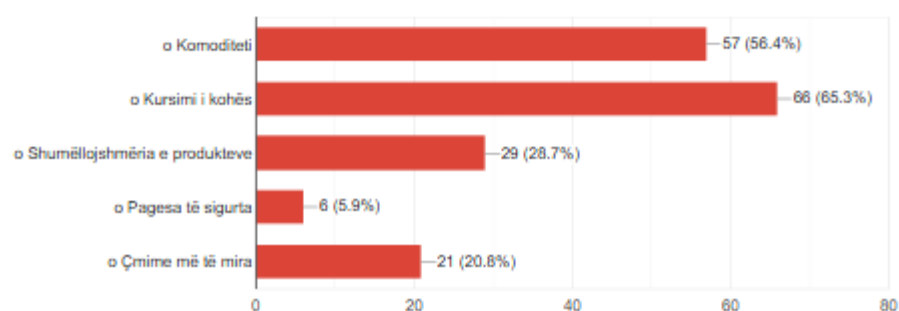
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15- Cilat janë avantazhet kryesore të E-commerce për ju? (Shumëzgjedhje)

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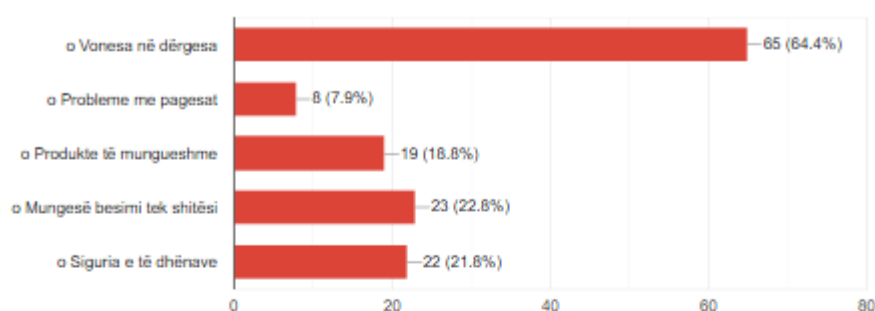
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16- Cilat janë sfidat kryesore që përjetoni gjatë blerjeve online?
(Shumëzgjedhje)

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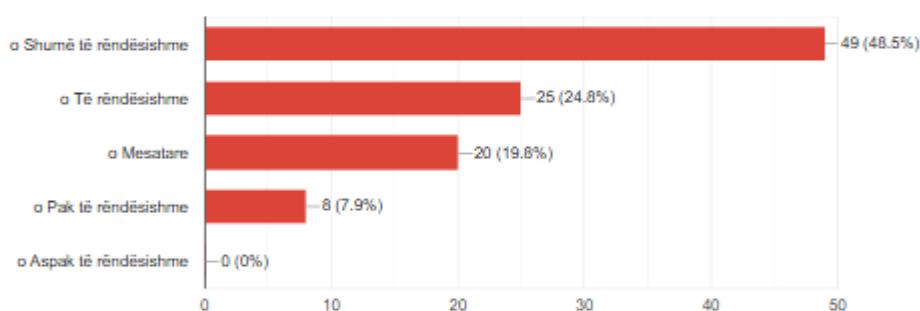
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17- Sa të rëndësishme janë bankat për blerjet tuaja online? (Zgjedhje e vetme)

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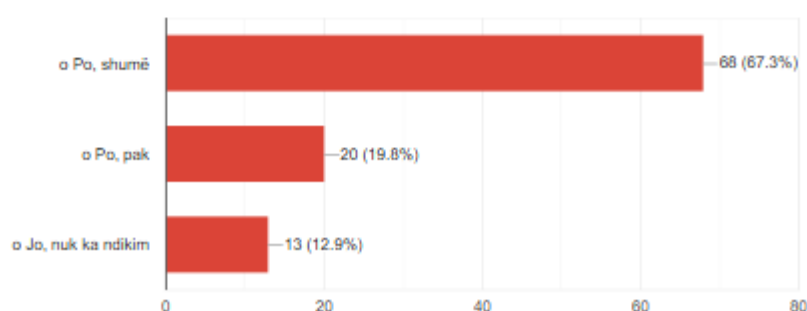
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18- A mendoni se banka ka ndikuar që blerjet online të jenë të sigurt dhe të shpejta? (Zgjedhje e vetme)

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References

- Laudon, K. & Traver, C. (2020). *E-commerce 2020: Business, Technology, Society*. 16th Edition. Pearson.
- Chaffey, D. (2021). *Digital Business and E-commerce Management*. 7th Edition. Pearson.
- Turban, E., King, D., Lee, J., Liang, T. & Turban, D. (2018). *Electronic Commerce 2018: A Managerial and Social Networks Perspective*. Springer.
- Donthu, N., & Gustafsson, A. (2020). Effects of COVID-19 on business and research. *Journal of Business Research*, 117, 284–289.
- Kantar (2020). *COVID-19 Barometer: Consumer behaviour report*. Kantar Insights.
- McKinsey & Company (2020). How COVID-19 has pushed companies over the technology tipping point—and transformed business forever.
- Bank of Albania. (2022). *Annual Report on Financial Stability and Payment Systems*. Tirana, Albania.
- European Central Bank (2021). *Payment Systems and Instruments*. ECB Publications.
- Kumar, V., & Petersen, A. (2020). Banking and Payment Systems in the Digital Era. *Journal of Financial Services Research*, 58(3), 357–375.
- SSRN – Study on the impact of COVID-19 on digital transactions and bank payment systems (global E-commerce context).
- MDPI – Scientific article on customer satisfaction in E-commerce during COVID-19 and business adaptation to new conditions.
- A2 News – Report on increased card and electronic payments during COVID-19 in Albania.

THE INVESTMENT CLIMATE AND ACCESS TO FINANCING FOR SMALL AND MEDIUM-SIZED ENTERPRISES IN BULGARIA

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Abstract

Small and medium-sized enterprises occupy a central place in the economic structure of the Republic of Bulgaria, forming the majority of economic entities, providing a significant share of employment, and contributing significantly to the creation of gross added value. In a dynamic economic environment marked by global crises, accelerated digitalization, and transition to a sustainable economy, the importance of a favourable investment climate and effective access to financing for SMEs is increasing. Investment is an important driver of economic growth. By increasing productivity, investment can generate sustainable jobs, increase incomes, and help people escape poverty. The main objective of the study is to analyse the investment climate in Bulgaria and its impact on access to finance for small and medium-sized enterprises, identifying the main challenges and opportunities for improvement.

Keywords: Investments, Investment Climate, SMEs, Financing, Sustainability, Digitalization, Development, Business

Introduction

The heterogeneous nature of small and medium-sized enterprises, manifested in the diversity of business models used, the size of the enterprises, the stage of their development, and the sector of economic activity, leads to the formation of differentiated needs. These needs are directly related to the opportunities for economic growth, strengthening competitive advantages, implementing digital technologies, and increasing the sustainability of SMEs. In the conditions of such heterogeneity, the effective satisfaction of the SMEs' specific needs is significantly determined by the characteristics of the environment in which they operate. The quality of the institutional framework, the stability of economic policy, and the availability of adequate financial mechanisms play a key role in enterprises' ability to realize their potential for growth and development. It is in this context that the analysis of the investment climate acquires particular significance. The investment climate is a set of economic, institutional, and legal factors that determine the incentives and constraints to investment activity. In this context, access to finance emerges as one of the main limiting factors for the growth and competitiveness of small and medium-sized enterprises, especially in economies with less developed capital markets, such as Bulgaria's. To achieve the main objective of the study, the following research tasks have been formulated:

- clarifying the theoretical aspects of the investment climate and SME financing;
- analysis of the institutional and macroeconomic environment in Bulgaria;
- survey among managers of small and medium-sized enterprises in Bulgaria.
- assessment of the main sources of financing for SMEs;
- formulating recommendations for improving financing conditions.

Methodology

The study employs a mixed methodological approach integrating theoretical review, macro-institutional analysis, and empirical investigation. Initially, a comprehensive literature review is conducted to conceptualize the investment climate and access to finance for SMEs, followed by an examination of Bulgaria's macroeconomic and institutional environment. The empirical component is based on primary quantitative data collected through an anonymous survey administered to 78 SME managers during the period 01 January 2026 – 05 February 2026, consisting of five multiple-choice questions addressing perceptions of the investment climate, financing sources, and barriers to financial access. The collected data are processed using descriptive analytical methods and interpreted in light of existing theoretical frameworks and empirical findings, enabling the formulation of evidence-based conclusions and policy recommendations aimed at improving SME financing conditions.

Theoretical framework and literature review

Essence and components of the investment climate

The dynamics of modern business development, related to the search for ways for future growth and innovation opportunities, improvement of the economic condition of enterprises and their competitiveness, determines the need for its digital transformation. (Filipova, Yaneva & Mierlus-Mazilu, 2023). In economic literature, the investment climate is defined as a set of factors that determine the conditions for investing and doing business in a given country. According to the World Bank approach, these factors include macroeconomic stability, quality of institutions, regulatory framework, protection of property rights, and efficiency of the judicial system. The investment climate directly influences the investment decisions of firms through its impact on expected returns and risk.

An unfavourable regulatory environment, high administrative burden, and institutional uncertainty increase transaction costs and limit access to financial resources. According to Hayes, an unfavourable investment climate is one of the many hindrances faced by underdeveloped nations. Regulatory reform is often a key component of removing the barriers to this investment. Several of non-profit organizations have been established for the purpose of improving the investment climate and spurring economic development in these countries. Also, some investors are willing to take this to him/her the high level of risk and volatility associated with investing in an unfavourable climate because of the potential that the high risk will be rewarded with high returns. (Hayes, 2022) One difficult aspect of understanding and judging the investment climate of a country or region is that governance is a broad concept that can be practiced effectively in different ways. There are also different kind of governance, from political governance (the type of political system, constitutional set-up, relations between state and society, economy governance (state) institutions that regulate the economy, competition, property and contract rights), and corporate governance (national and company law and practices that determine corporate conduct, shareholder rights, disclosure and transparency, accounting standards).

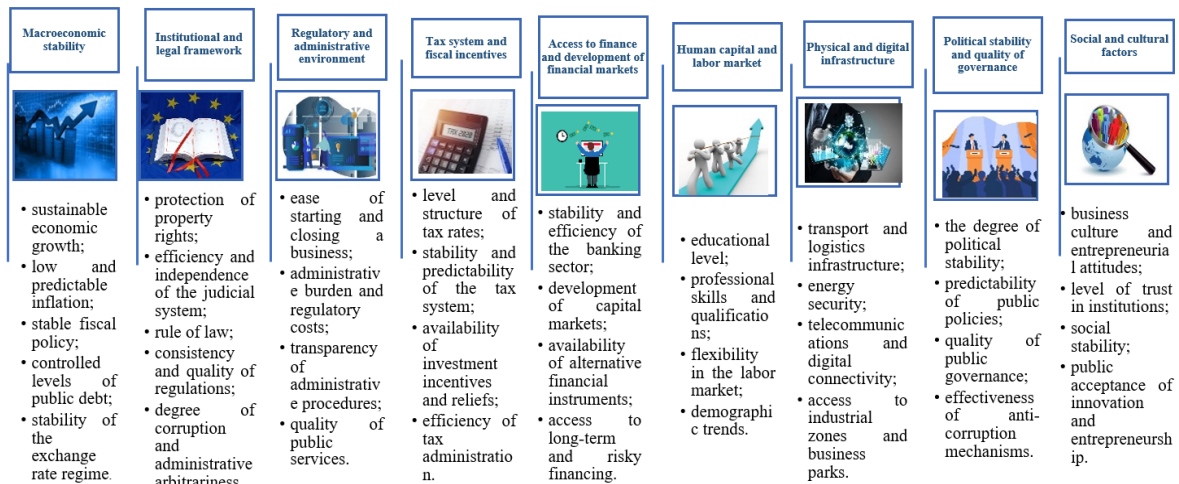
A favourable investment climate includes stable political and macroeconomic conditions, and protection of property rights. Improving the investment climate cannot in itself ensure an

increase in foreign investment. Practice in other countries shows that improving the investment climate is a necessary, but not a sufficient condition. The legal foundations of the activities of foreign investors and specific incentives for FDI (Foreign Direct Investment) aimed at increasing the investment attractiveness of the country must be created. (Angelov, et.all, 2003) In order for individuals, financial institutions, and public organizations to be motivated to invest in a given economic environment, they need to form reasonable and predictable expectations about the conditions that will allow for sustainable development and expansion of investment activity. In this sense, the investment climate should ensure stability, transparency, and predictability of economic and institutional processes. The lack of adequate public business infrastructure, including a stable and consistent regulatory framework, market-oriented legislation, effective and impartial application of legal norms, as well as transparent public procurement procedures, hinders the building of trust in the investment environment. Under such conditions, perceived risk and transaction costs increase, which limits private sector investment activity.

Trust in the state's ability to guarantee legal certainty and equality of economic entities is a key factor for the functioning of a market economy. In the absence of clearly defined and consistently applied "rules of the game", the interaction between the public and private sectors becomes difficult, and large-scale investment projects become difficult to implement. In this context, ensuring a level playing field for business and creating sustainable mechanisms for institutional dialogue between state authorities and business are essential prerequisites for improving the investment climate.

In this context of emphasizing the importance of the interdependence between the actions of government agencies and the business sector, we can examine the study by Tsenkov and Vladimirova, which examines the impact of the corruption environment in Bulgaria and the dynamics of foreign direct investment during the period 2000–2023. By contrasting the situation in Bulgaria with that of Denmark, the leading European country in anti-corruption efforts, the authors identify entirely different patterns of interaction between foreign direct investment (business), the corruption environment, and the effectiveness of anti-corruption measures (the state). Assuming the joint action of the factors “Control of Corruption” and “Effectiveness of Public Administration,” Tsenkov and Vladimirova hypothesize that both anti-corruption factors should exert a combined impact on the dynamics of outbound foreign direct investment, as they observe in the case of Denmark. However, with regard to Bulgaria, the influence comes solely from the factor “Efficiency of Public Administration,” which indicates that foreign investors appreciate the importance of the efficiency of government actions but, at the same time, do not believe that these would lead to an immediate improvement in the effectiveness and efficiency of actions related to “Control of Corruption,” as a comprehensive measure of the anti-corruption environment in a given country. (Tsenkov&Vladimirova, 2025) The investment climate is a complex system of interrelated economic, institutional, and social factors that shape the conditions for investment activity in a given country or region. The quality of these components determines the degree of attractiveness of the economic environment and directly influences the investment decisions of economic entities. The multidimensional nature of the investment climate can also be examined through integrated analytical frameworks such as PESTEL, which allow for a structured assessment of political, economic, social, technological, environmental, and legal factors influencing business environments (Karadzhov, 2025). According to Kirov, it also requires the ability to reflect on personal and social roles in planning and implementing ways to contribute to the community. (Kirov, 2024)

Figure 1. Components of the investment climate



Source: Own research

The figure shows that the investment climate of an enterprise is multi-component, and it is necessary for all factors to be in symbiosis to maintain high investment positions. First of all, there is macroeconomic stability, which is a fundamental component of the investment climate and includes sustainable economic growth, low and predictable inflation, stable fiscal policy, controlled levels of public debt, and stability of the exchange rate regime. These factors create a predictable environment that reduces investment risk and facilitates long-term planning. Second, the institutional and legal framework, as the institutional environment determines the “rules of the game” in the economy and includes protection of property rights, efficiency and independence of the judiciary, rule of law, consistency and quality of regulations, and the degree of corruption and administrative arbitrariness. A weak institutional framework increases uncertainty and transaction costs for investors. The third factor is the regulatory and administrative environment, as this component covers the ease of starting and closing a business, the administrative burden and regulatory costs, the transparency of administrative procedures, and the quality of public services. An effective regulatory environment supports entrepreneurial activity and competitiveness. Then, the tax system and fiscal incentives affect the return on investment through the level and structure of tax rates, stability and predictability of the tax system, availability of investment incentives and reliefs, and efficiency of the tax administration. Frequent changes in the tax framework create uncertainty and deter investment activity. In fifth place is access to finance and the development of financial markets. Financial infrastructure is a key element of the investment climate and includes stability and efficiency of the banking sector, development of capital markets, availability of alternative financial instruments, and access to long-term and risk financing. According to Kicheva and Kirov, in this context, the entrepreneur's honesty is established as an indispensable element of business relations, since even the slightest damage to his image can lead to serious financial losses, and often to bankruptcy. (Kicheva& Kirov, 2020). Limited access to finance is a significant barrier, especially for SMEs. Of course, human capital and the labor market are of utmost importance. The quality and availability of human capital have a direct impact on investment decisions, which include educational level, professional skills and qualifications, flexibility of the labor market, and demographic trends. The shortage of a qualified workforce can limit investment potential. Physical and digital infrastructure includes data on transport and logistics infrastructure, energy security, telecommunications, and digital connectivity and access to industrial zones and business parks. Insufficiently developed infrastructure increases business costs and reduces competitiveness. Filipova points out that an expression of the

competitiveness of the enterprise is its adaptability, expressing the adequacy of its responses to the impact of the environment and compliance with changes in environmental dynamics. (Filipova, 2004) In the penultimate position is political stability and quality of governance, influencing the investment climate through the degree of political stability, predictability of public policies, quality of public governance, and effectiveness of anti-corruption mechanisms. Frequent political changes and institutional instability increase investment risk. In the last position is the component "Social and cultural factors", which covers business culture and entrepreneurial attitudes, level of trust in institutions, social stability, and public acceptance of innovation and entrepreneurship. According to Kalaydzhieva, modern innovations are mostly related to digitalization and digital transformation of business models. New technologies and ideas can contribute to solving environmental challenges and facilitate sustainability (Kalaydzhieva, 2023). Emerging digital sectors, including virtual tourism and digital services, are increasingly contributing to economic development and investment diversification (Karadzhov&Kirilov, 2023). The investment climate should be viewed as a multi-component system in which the individual elements are interdependent. Improving one component without concomitant progress in the others has a limited effect on the overall investment attractiveness of the economy.

Theoretical aspects of access to finance for SMEs

Access to finance for SMEs is seen in theory as a problem mainly related to information asymmetry between lenders and borrowers. Small businesses often have limited credit histories and insufficient collateral, which leads to higher perceived risk on the part of financial institutions. Classical theories of credit constraints emphasize that in imperfect markets, banks prefer to restrict lending or increase collateral requirements rather than increase interest rates. This puts SMEs at a disadvantage compared to large enterprises.

In fact, information asymmetry is the central problem in SMEs. Banks and investors often do not have complete information about the real state of the company, while the owners own it. This is where the two main models are distinguished:

1) Adverse selection): Lenders have a hard time distinguishing between “good” and “bad” borrowers, which can lead to higher interest rates for everyone.

Adverse selection in finance is an economic concept describing a market situation in which, due to asymmetric information (one party knows more than the other), a financial instrument or contract attracts primarily "risky" customers or assets, leading to unfavorable outcomes for the lender or investor. (Hayes, 2025) In the context of finance, this means that people or firms that are at the highest risk of default are most likely to seek financing, while lenders cannot easily distinguish "sound" from "risky" projects. (Cecchetti&Schoenholtz, 2017)

When banks and borrowers come together, this determines the personal loans, mortgages or business loans, and adverse selection is deeply rooted in the discussions. (Marquez, 2002) For example, when a new customer approaches a bank looking for a personal loan, they will always know their spending, savings and potential income better than the bank would. This creates adverse selection as the customer possesses information about their life which is unknown to the bank, and they can take an economic advantage due to this information. (Dong &Guixia, 2011). Similarly, when a business requests a loan from a bank, this also creates adverse selection. The business possesses information about market trends, insider business knowledge, and other future happenings relevant this the business that a bank would not know when lending money to a company. A further case where adverse selection is relevant is when banks trade loans. This process creates adverse selection, as when a bank transfers a loan to a new bank, they are unaware of how risky the borrower is and the other associated risks that go along with banks' lending their money. (Chari, Shourideh, Zetlin-Jones, 2014) This counteracts the effects

of adverse selection, banks have moved towards building stronger relationships with their customers, to assist in further understanding some of the hidden information the consumers have when they are borrowing from banks. Furthermore, banks can adjust interest rates which helps alleviate some of the unknown risks involved. Banks have also implemented heavier screening him/her loan applicants so that they receive the full picture when they lend their money to these borrowers. They are investing a significant amount of resources to gather enough information him/her borrowers this help estimate the possibility of the loan being repaid by the borrower. Additionally, banks have implemented limits him/her lending for some borrowers which lowers the risk of customers defaulting him/her their loans. (Marquez, 2002) Banks have been trying to implement as many safeguards as possible him/her the borrowing process to limit the effects of adverse selection him/her their business.

2) Moral hazard Hazard): After receiving the funds, the entrepreneur may take riskier actions than initially announced. (CFI team, 2020)

Moral hazard is a term used to describe the existence of incentives for one or more actors in a situation or economic or financial system that induce them to make harmful or unsustainable decisions. Moral hazard typically arises when the decision-making process is distorted, most often as a result of government regulations or the way an organization is structured. In perhaps the most classic moral hazard scenario, one of the actors involved is not directly responsible for the outcomes of his or her decisions. Moral hazard can exist in all types of organizations, not just state or local government. However, it is more common in the latter, due to the lack of or less well-developed mechanisms for holding individuals accountable. Examples of moral hazard:

- The central bank monetizes government debt – it prints new money to buy newly issued government securities. In doing so, it introduces enormous moral hazard into the system, as politicians know that they can always get more money, regardless of the lack of fiscal and financial discipline in general. This leads to an unsustainable increase in public spending and the debt-to-GDP ratio. This phenomenon is observed in large parts of advanced economies today.

- However, the actions of central banks can also create moral hazard in the private sector. One such example is the United States, where stock market players, relying on cheap liquidity from the country's Federal Reserve, invest in all kinds of assets, regardless of their expected future profitability. It is precisely cheap financing that creates moral hazard in the system and becomes a prerequisite for the development of extremely unstable businesses – the so-called zombie companies. This is exactly what happened during the Dotcom bubble at the beginning of this century, when, in the words of Peter Thiel in “From Zero to One”, investors provided funds even in exchange for the presentation of a business plan.

Review of empirical research

Empirical research conducted within the European Union consistently confirms the existence of a strong relationship between the quality of the investment climate, the degree of development of financial markets, and access to finance for small and medium-sized enterprises. Countries characterized by a stable institutional environment, predictable economic policy, and an effective legal system create more favorable conditions for the diversification of financial sources, which facilitates investment activity and the growth of SMEs.

Several comparative analyses show that in economies with developed capital markets, SMEs have wider access not only to bank lending, but also to alternative forms of financing, such as venture and equity capital, business angels, and market-based instruments. This financial

diversification reduces the dependence of enterprises on the banking sector and contributes to higher sustainability of investment activity, especially in periods of economic instability.

In contrast, empirical evidence for Central and Eastern European countries suggests that bank financing remains the dominant source of external financing for SMEs. The limited development of capital markets, combined with institutional weaknesses and lower levels of trust among economic agents, hinders the diffusion of alternative financial instruments. As a result, SMEs in the region often face stricter lending conditions, including high collateral requirements and limited access to long-term financing.

Empirical research on Bulgaria confirms these trends, highlighting the strong dependence of SMEs on the banking sector and the significant role of public and European financial instruments as a compensatory mechanism. Despite the positive effect of guarantee schemes and support programs, a number of analyses indicate that complex administrative procedures and the limited financial culture of some entrepreneurs reduce the effectiveness of these instruments.

Some empirical studies also emphasize the importance of non-financial factors, such as the quality of corporate governance, the transparency of financial reporting, and the innovative capacity of enterprises, which influence the perceived risk and the conditions for financing. This confirms the need for an integrated approach to the analysis of access to finance for SMEs, which takes into account both macroeconomic and institutional conditions and the specific characteristics of the enterprises themselves.

In summary, the empirical literature clearly shows that improving the investment climate and developing financial markets are key prerequisites for expanding access to finance for SMEs. In the Bulgarian context, this suggests the need for consistent policies aimed at both institutional strengthening and stimulating alternative forms of financing and increasing the financial literacy of entrepreneurs.

The investment climate in Bulgaria

Macroeconomic and institutional environment

The Bulgarian economy is characterized by relative macroeconomic stability, supported by the currency board and conservative fiscal policy. However, structural problems such as low labour productivity, demographic decline, and regional imbalances negatively affect investment activity. From an institutional perspective, the business environment in Bulgaria is criticized for administrative burden, regulatory unpredictability, and the effectiveness of the judicial system. These factors increase uncertainty and hinder long-term investment planning. The investment climate in Bulgaria in 2025-2026[1] is characterized by moderate optimism, supported by stable economic growth and the expected accession to the eurozone. Key economic indicators and forecasts are:

- Economic growth: GDP growth forecasts for 2025 range between 2.2% and 3.7%. The main drivers are domestic consumption and EU-led investments.
- Business Climate: In January 2026, the overall business climate indicator reported a significant improvement of 4.0 points compared to December 2025, covering all major sectors - industry, construction, trade, and services.
- Foreign Direct Investment (FDI): Data for the beginning of 2025 show growth, with FDI reaching €1.117 billion for the period January - April (compared to €876 million for the same period in 2024). (OECD, 2025)

Benefits and incentives:

- Tax policy: The country maintains some of the lowest levels of corporate and income taxes in the EU.

- Eurozone and Schengen: Full Schengen accession and progress towards the eurozone (target 1 January 2026) are seen as key factors in reducing transaction costs and increasing trust.

- Sectoral potential: The most dynamically developing sectors remain the IT sector, tourism, and mechanical engineering. [2]

Critical challenges:

- Labor market: The acute shortage of skilled labor and rapidly rising wages remain a major obstacle to business expansion.

- Institutional environment: Investors continue to express concerns about the rule of law, frequent legislative changes, and administrative barriers to issuing permits.

- Fiscal stability: The budget deficit is expected to remain around 3% of GDP in 2025, requiring careful management of public spending. [2]

International business environment assessments

International investment climate and competitiveness indices place Bulgaria in a relatively unfavorable position compared to the European Union average. The main weaknesses are identified in the areas of the rule of law, the fight against corruption, and the quality of public services, which have a direct impact on access to finance for businesses.

Access to finance for SMEs in Bulgaria

Bank financing

The banking sector in Bulgaria is well capitalized and stable, but lending to SMEs remains relatively conservative. The main constraints stem from strict collateral requirements, short maturities, and limited willingness to finance innovative and start-up businesses. Despite the availability of liquidity, banks often prefer lower-risk borrowers, which limits SMEs' access to investment credit.

Alternative sources of financing

Alternative forms of financing, such as venture capital, business angels, and crowdfunding, are still underdeveloped, but interest in them is gradually growing in Bulgaria. The main reasons include limited market scale, insufficient financial culture, and lack of established investor networks. What is interesting about crowdfunding in Bulgaria is that it is experiencing a smooth but sustainable development, moving from mainly donation campaigns to more complex investment models (equity and lending). In 2024-2025, the market will become significantly more active with the emergence of licensed platforms and increased interest in investments in real estate and startups. The main data and trends in 2024-2025 are:

- In February 2025, the Bulgarian Stock Exchange (BSE) launched SpaceCrowd – a specialized platform for collective investment aimed at startups and small businesses, allowing for capital raising of up to EUR 5 million. (Sokolov, 2025)

- Companies are expected to seek funding between BGN 200,000 and BGN 2 million through the new platforms. (Golemanski, 2025)

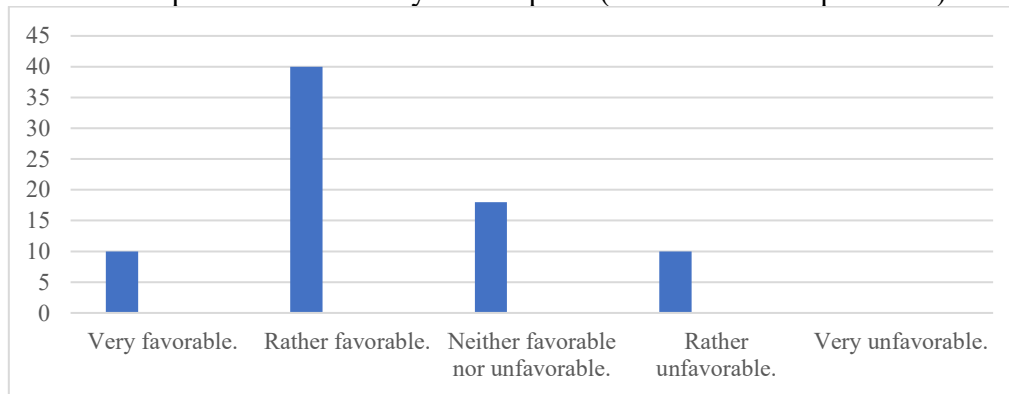
- Bulgarians show high interest in crowdfunding, ranking among the most active real estate investors in the region - for example, nearly 2,000 Bulgarians invest in the Reinvest24 platform, ranking the country in third place in terms of number of investors there.

- Although philanthropy is strong, the leading trend is equity-based and real estate investments. estate crowdfunding), as investors are looking for returns, not just support for causes. [3]

European and national programmes, including financial instruments, guarantee schemes, and grants, play a significant role in financing SMEs. However, complex procedures and administrative requirements often limit their effective uptake.

For the purposes of the study, an anonymous survey was conducted among managers of small and medium-sized enterprises to determine the investment climate and access to financing. The questionnaire contains 5 questions with several possible answers and is completely anonymous. The survey was distributed during the period from 01.01.2026 to 05.02.2026 and was completed by 78 respondents.

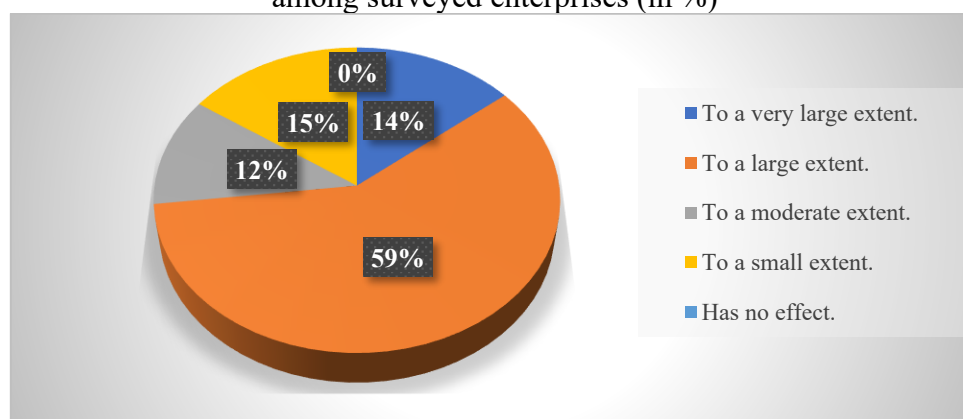
Chart 1. Assessment of the general investment climate in Bulgaria in relation to the development of the surveyed enterprise (in number of respondents)



Source: Own research

The results presented in Chart 1 reflect the subjective assessment of the respondents regarding the investment climate in Bulgaria and its importance for the development of their enterprises. There is a predominance of neutral and negative assessments, which suggests the presence of some uncertainty and scepticism regarding the business environment. This can be interpreted as an indicator of limited trust in the institutional and regulatory framework, as well as the presence of structural problems that hinder the investment activity of SMEs. The relatively lower share of positive assessments suggests that the favourable elements of the investment climate are not perceived as strong or sustainable enough to fully support the long-term development of enterprises. These results are consistent with the conclusions from the empirical literature on the countries of Central and Eastern Europe.

Chart 2. Degree of influence of the investment climate on access to external financing among surveyed enterprises (in %)

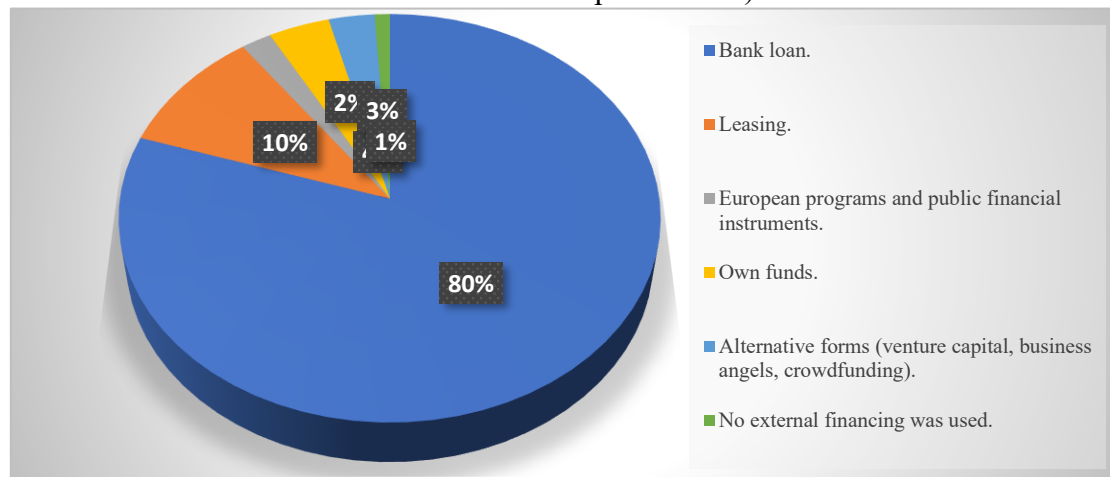


Source: Own research

Chart 2 clearly shows that the majority of respondents perceive the investment climate as a factor that significantly influences their access to external financing. This confirms the thesis that the conditions of the institutional and economic environment affect not only general

business activity but also specific opportunities for raising financial resources. The limited share of respondents who report little or no influence can be explained by specific characteristics of individual enterprises, such as better financial sustainability or use of own funds. However, the dominant perception of a strong relationship between the investment climate and financing emphasizes the systemic nature of the problem.

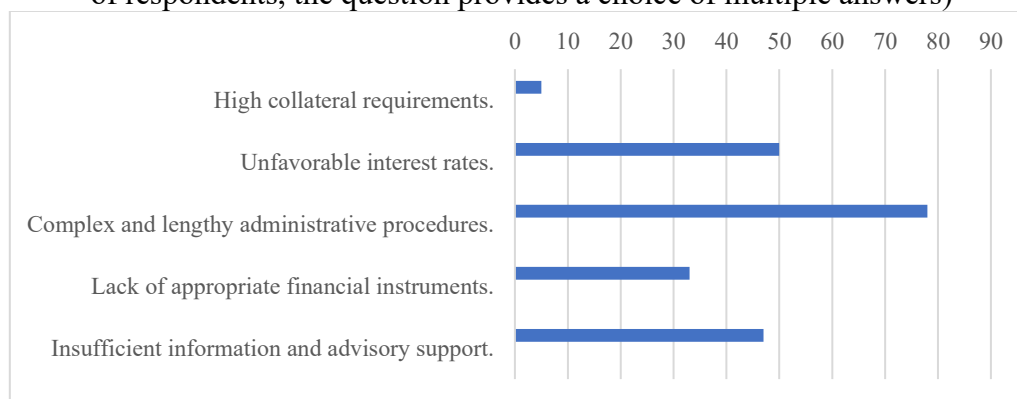
Chart 3. Sources of financing used among surveyed enterprises (in %, the question provides a choice of multiple answers)



Source: Own research

The results of chart 3 show a clear dominance (80%) of traditional sources of financing, such as bank lending and own funds. This confirms the high degree of dependence of SMEs on the banking sector and the limited diversification of financial sources. Alternative forms of financing, including venture capital, business angels, and crowdfunding, occupy a peripheral place in the structure of financial instruments used. This can be explained by the insufficient development of capital markets, as well as the limited awareness and experience of enterprises in using such mechanisms. The presence of European and public financial instruments partially compensates for these limitations, but fails to fully replace the lack of market-based alternatives.

Chart4. Intensity of obstacles to access to financing among surveyed enterprises (in number of respondents, the question provides a choice of multiple answers)



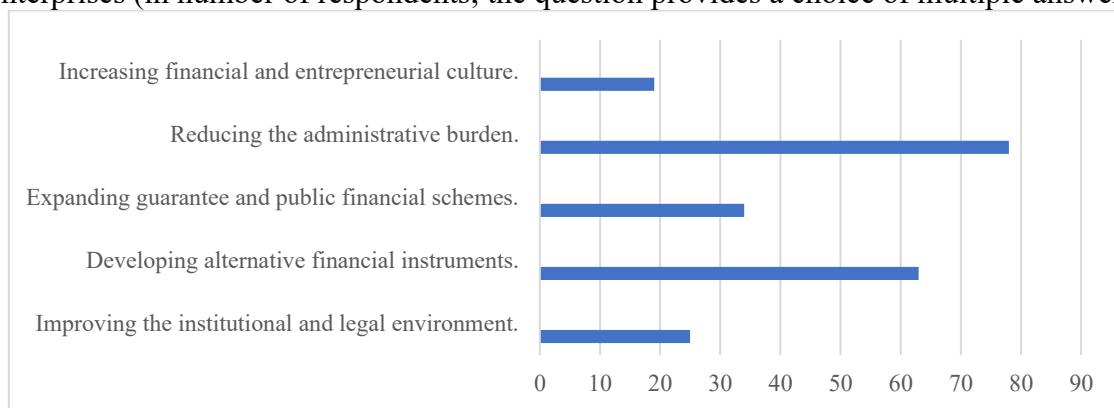
Source: Own research

Chart 4 reveals that the main obstacles to access to finance are related to both the requirements of financial institutions and the institutional environment. Among the most frequently cited

problems, high collateral requirements and complex administrative procedures stand out, which is consistent with the results of similar empirical studies. The presence of more than one significant factor shows that the constraints to finance are complex in nature and cannot be reduced to a single problem. This further confirms the need for an integrated approach in the formulation of policies to support SMEs. The obstacles can be graded as follows:

- 1) Complex and lengthy administrative procedures – 78 respondents (100%)
- 2) Unfavorable interest rates - 50 respondents (64%)
- 3) Insufficient information and advisory support - 47 respondents (60%)
- 4) Lack of appropriate financial instruments - 33 respondents (42%)
- 5) High collateral requirements - 5 respondents (6.4%)

Chart 5. Increment of measures that would contribute to improving access to financing for enterprises (in number of respondents; the question provides a choice of multiple answers)



Source: Own research

Chart 5 shows that respondents clearly identify improving the institutional environment, reducing the administrative burden, and expanding public and guarantee mechanisms as key measures to improve access to finance. This shows that enterprises perceive state policy and the quality of governance as decisive factors for their financial sustainability. The weaker, but still significant interest in measures related to increasing financial literacy suggests an awareness of the need for internal organizational development of SMEs, along with external institutional changes.

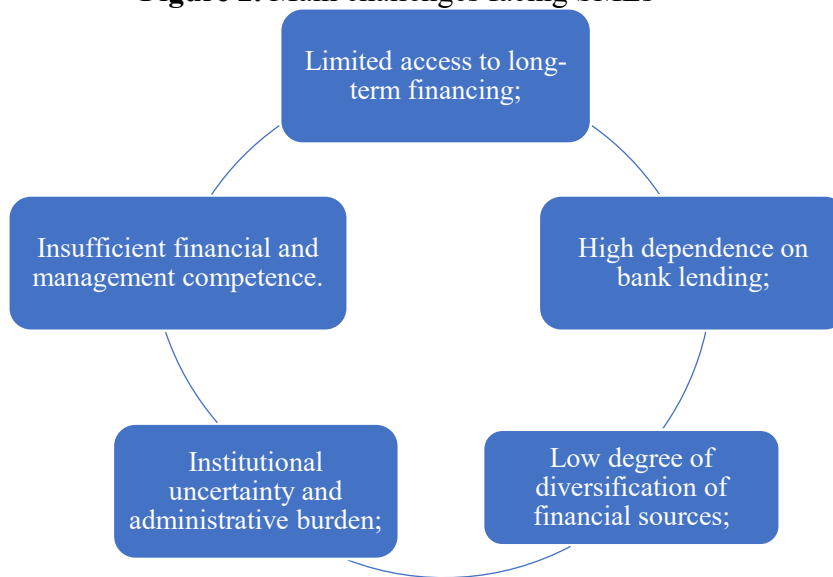
Based on the analysis performed, the following main conclusions can be formulated:

- The investment climate in Bulgaria is perceived by a significant part of SMEs as rather unfavorable or uncertain, which has a negative impact on investment activity.
- There is a clear correlation between the quality of the investment climate and access to external financing for enterprises.
- SME financing remains highly concentrated around the banking sector, with little development of alternative financial instruments.
- Barriers to access to finance are complex and include both financial and institutional factors.
- Improving the institutional framework, reducing the administrative burden and expanding public financial mechanisms are emerging as key areas for policy aimed at supporting SMEs.

Main challenges facing SMEs

Small and medium-sized enterprises in Bulgaria operate in an environment characterized by a number of structural and institutional constraints that hinder their sustainable development and increase their competitiveness. The analysis of the main challenges reveals the complex nature of the problems related to both the external economic environment and the internal characteristics of the enterprises themselves. Among the key challenges can be highlighted: (Figure 2)

Figure 2. Main challenges facing SMEs



Source: Own research

First, limited access to long-term financing is a significant obstacle to the investment activity of SMEs. Short loan maturities and the mismatch between the financing term and the investment horizon of enterprises limit the opportunities for the implementation of capital-intensive projects related to modernization, digitalization, and innovation. Second, high dependence on bank lending increases the vulnerability of SMEs to changes in the credit policy of financial institutions and the economic cycle. In the context of stricter regulatory requirements and increased risk-aversion on the part of banks, small enterprises often face limited access to external financial resources or unfavourable financing conditions. Third, the low degree of diversification of financial sources limits the opportunities of SMEs to adapt their financial strategy to their specific needs and stage of development. The weak development of capital markets and alternative financial instruments leads to underutilization of the potential of venture capital, equity financing, and other market-oriented mechanisms. Next, institutional uncertainty and significant administrative burdens increase transaction costs for SMEs and hinder long-term planning. Frequent regulatory changes, complex administrative procedures, and insufficient efficiency of public institutions create an uncertain business environment that negatively affects investment decisions. Finally, insufficient financial and managerial competence of some entrepreneurs and managers of SMEs constitutes an additional internal constraint. The lack of strategic financial planning, limited skills for evaluating investment projects and insufficient transparency of financial reporting reduce the trust of external investors and financial institutions. The challenges facing SMEs are interrelated and require an

integrated approach that combines improving the investment climate, developing the financial infrastructure, and increasing the management capacity of enterprises. Only through coordinated policies and targeted measures can sustainable conditions for long-term growth and competitiveness of SMEs be created.

Opportunities and good practices

Improving the investment climate and expanding access to finance for small and medium-sized enterprises requires the implementation of a comprehensive and coordinated approach that combines institutional reforms, development of financial infrastructure, and increasing administrative capacity. In this context, several key areas can be identified that are proving to be effective both in European practice and in the national context.

First, the development of guarantee and risk-sharing mechanisms is a proven means of facilitating access to finance for SMEs. The participation of the public sector in assuming part of the credit risk reduces the perceived uncertainty for financial institutions, which creates the conditions for more favourable credit conditions, longer financing terms, and the inclusion of enterprises with limited collateral. Such mechanisms contribute to the activation of investment activity without violating market principles.

Secondly, the promotion of alternative forms of financing is essential for the diversification of financial sources for SMEs. The development of venture and equity capital, business angel networks, and crowdfunding platforms creates financing opportunities for innovative and start-up companies that traditionally face difficulties in accessing bank loans. Support for these instruments should be accompanied by an adequate regulatory framework and incentives for private investors.

Next, the digitalization of administrative and financial services is emerging as a key factor in improving the investment environment. The introduction of electronic platforms for administrative services, applications for financing and management of financial instruments reduces the administrative burden, shortens processing times, and increases the transparency of procedures. Digitalization also contributes to more equal access of enterprises from different regions to financial resources.

Finally, adapting good European practices to the national context represents an important opportunity for accelerating the improvement of the investment climate. Successful models for supporting SMEs implemented in other Member States can also be effective in Bulgaria, provided that the specifics of the local economy, institutional environment and market scale are taken into account. A key element in this process is the systematic exchange of experience and the implementation of evidence-based policies.

Achieving sustainable improvements in the investment climate and access to finance for SMEs requires an integrated approach that combines financial, institutional and technological solutions. The implementation of good practices and targeted policies can create conditions for long-term growth, increased competitiveness, and sustainable development of small and medium-sized enterprises in Bulgaria.

Conclusion

This study was aimed at analyzing the investment climate in Bulgaria and its impact on access to finance for small and medium-sized enterprises, with the emphasis on identifying the key institutional, economic, and financial factors that shape the conditions for investment activity and sustainable development of SMEs. The theoretical and empirical analysis conducted allows for a reasonable conclusion that the investment climate represents a determining framework within which the financial decisions of enterprises are implemented, and its quality has a direct and indirect impact on the opportunities for access to external financial resources.

Theoretically, the study confirms the understanding of the investment climate as a multi-component system of interrelated factors - macroeconomic stability, institutional and legal framework, regulatory environment, development of financial markets, human capital, and infrastructure. The analysis shows that the lack of balance and coordination between these elements significantly reduces the effectiveness of policies undertaken to promote investment and limits the growth potential of SMEs, even in the presence of favourable macroeconomic indicators.

The empirical results of the survey conducted among managers of small and medium-sized enterprises confirm the theoretical assumptions and reveal the presence of clearly expressed skepticism regarding the investment climate in Bulgaria. The prevailing neutral and negative assessments indicate limited trust in the institutional and regulatory environment, which has an adverse effect on the investment intentions and financial behaviour of enterprises. In this context, access to finance emerges not only as a financial problem but as a systemic result of broader institutional and structural constraints.

The analysis of sources of financing shows a strong dependence of SMEs on bank lending and their own funds, with weak development and limited use of alternative financial instruments. This concentration increases the vulnerability of enterprises to bank credit policies and economic cycles and limits the possibilities for financing innovative, long-term, and riskier investment projects. Despite the growing role of public and European financial instruments, their effectiveness is often reduced by complex administrative procedures and insufficient awareness of businesses.

The results obtained clearly show that improving access to finance for SMEs cannot be achieved through isolated financial measures. An integrated approach is needed that combines institutional reforms, reducing the administrative burden, developing capital markets and alternative forms of financing, as well as increasing the financial and managerial competence of entrepreneurs. Only in the conditions of a stable, predictable and transparent investment climate can SMEs realize their potential as a driver of economic growth, employment, and innovation in Bulgaria. The main conclusions of the study are:

- The investment climate is a key determinant of access to finance for SMEs, with its quality directly influencing perceived risk, lending conditions, and the possibilities for using alternative financial instruments.
- The institutional and regulatory environment in Bulgaria remains among the main constraints to SME investment activity, despite the relative macroeconomic stability and favourable tax policy.
- There is a clear correlation between the perceived quality of the investment climate and access to external financing, confirmed by both the empirical literature and the results of the survey.
- Financing of small and medium-sized enterprises in Bulgaria is highly concentrated in the banking sector, with insufficient development and use of alternative forms of financing, which limits investment diversification and the sustainability of enterprises.
- Improving the conditions for financing SMEs requires complex and coordinated policies aimed at institutional strengthening, reducing administrative barriers, developing financial markets, and increasing the financial literacy of entrepreneurs

References

- Angelov, I., et all. (2003). Creating an appropriate economic environment. Available at:
<https://www.iki.bas.bg/english/CVita/angelov/prognosis2020/001Contents.htm#top/>
https://www.iki.bas.bg/english/CVita/angelov/prognosis2020/009Chapter07.htm#_ftnref1

- Cecchetti, G., S. & Schoenholtz, L., K. (2017). Adverse Selection: A Primer. Available at: <https://www.moneyandbanking.com/primers/2017/8/13/adverse-selection-a-primer>
- Chari, V., V., Shourideh, A., & Zetlin-Jones, A. (2014). Reputation and Persistence of Adverse Selection in Secondary Loan Markets. *American Economic Review*, 104 (12): 4027–4070. DOI:10.1257/aer.104.12.4027.
- CFI team. (2020). What is Moral Hazard?. Available at: <https://corporatefinanceinstitute.com/resources/economics/moral-hazard/>
- Dong, B. & Guixia, G. (2011). The relationship banking paradox: No pain no gain versus reason "to be. *Economic Modeling*, 28 (5): 2263. Doi:10.1016/j.econmod.2011.06.009.
- Definition of the word: (Moral risk). <https://credirect.bg/finansov-rechnik/moralen-risk>
- [2] Economic Forecast for Bulgaria 2025: Stability with Opportunities GTAI Report him/her the Country's Current Economic Outlook. <https://www.infobusiness.bcci.bg/tema3-25july.html>
- Filipova, M. (2004). Increase the competitiveness of the breweries companies. Publ. Korekt. Sofia. p. 85
- Filipova, M., Yaneva D. & Mierlus-Mazilu, I. (2023). Specifics of digital transformation in business. *Economics and management*, 20(2), 110-121 DOI: 10.37708/em.swu.v20i2.7
- [3] First crowdfunding project for real estate in Bulgaria, https://profit.bg/article/202401242_0293664033
- I Golemanski, V. (2025). Bulgarian Stock Exchange launches crowdfunding platform SpaceCrowd for startups. *Balkans Business Wire*. Available at: <https://balkanbusinesswire.com/stories/bulgarian-stock-exchange-launches-crowdfunding-platform-spacecrowd-for-startups/>
- Hayes, A. (2022). Investment Climate: What it is. How it Works. Investopedia, Available at: <https://www.investopedia.com/terms/i/investmentclimate.asp>
- Hayes, A. (2025). Adverse Selection Explained: Definition, Effects, and the Lemons Problem. Available at: <https://www.investopedia.com/terms/a/adverseselection.asp>
- Investment Climate Statements: Bulgaria (2025). Available at: <https://www.state.gov/reports/2025-investment-climate-statements/bulgaria>
- Kalaydzhieva, V. (2023). New Technologies as an Opportunity for Digital Transformation of Business. *International Scientific Conference INDUSTRY 4.0, Proceedings, Year VIII, Volume 2/19, ISSN (Print) - 2535-0153; ISSN (Online) - 2535-0161*.
- Karadzhev, V., & Patarchanova, E. (2025). How to create the best PESTEL analysis. *International Journal of Digital Research*, E-ISSN: 3033-179X, 1(3), 8–20. DOI: <https://doi.org/10.63711/ijdr.net20250301>
- Karadzhev, V., & Kirilov, S. (2023). Virtual horizon – Unveiling the ecological impact of virtual tourism. *Journal PirinskiKnizhovniListi, College of Tourism – Blagoevgrad*, ISSN: 1312-6911(Print), ISSN: 2815-4541 (Online), Vol. 14, Issue 14, pp. 38-49. DOI: <https://doi.org/10.5281/zenodo.1470819>
- Kirov, S. (2024). Social consciousness and social governance. *Journal ‘PirinskiKnizhovnilisti’*, ISSN: 1312-6911 (Print); 2815-4541 (Online), XV (XV), pp. 14-18, available at: <https://cotur.bg/wp-content/uploads/2024/09/%D0%9F%D0%B8%D1%80%D0%B8%D0%BD%D1%81%D0%BA%D0%B8-%D0%BA%D0%BD%D0%B8%D0%B6%D0%BE%D0%B2%D0%BD%D0%B8-%D0%BB%D0%B8%D1%81%D1%82%D0%B8-2024.pdf>
- Kicheva-Kirova, M. & Kirov, S. (2020). Ethics and modern entrepreneurship. *Entrepreneurship*, VIII (1), pp. 7-16, available at: https://ep.swu.bg/images/pdfarticles/2020/ETHICS_AND_MODERN_ENTREPRENEURSHIP.pdf
- Marquez, R. (2002). Competition, Adverse Selection, and Information Dispersion in the Banking Industry. *The Review of Financial Studies*, 15 (3): 901–926. DOI:10.1093/rfs/15.3.901. JSTOR 2696725.
- OECD. (2025). Forecasts 3% Economic Growth in Bulgaria in 2025 Followed by Moderate Slowdown Until 2027. Available at: <https://www.infobusiness.bcci.bg/oecd-forecasts-3-economic-growth-in-bulgaria-in-2025-followed-by-moderate-slowdown-until-2027.html>
- Sokolov, R. (2025). SpaceCrowd is the new crowdfunding platform of the Bulgarian Stock Exchange. *Forbes*. Available at: <https://forbesbulgaria.com/2025/02/07/spacecrowd-e-novata-kraudfanding-platforma-na-bfb/>
- Tsenkov, V., Vladimirova, G. (2025), Corruption as a Factor Affecting Foreign Direct Investment Outflows - the Case of Bulgaria and Denmark in the period 2000-2023, *Proceeding's book of the 12th international conference innovations and new visions: perspectives on business and law in the 21st century*", ISBN: 9789928810885, University of Elbasan, Albania.

ACCESS TO EDUCATION AND SOCIAL INTEGRATION FOR REFUGEES AND ASYLUM SEEKERS IN ALBANIA: INTERNATIONAL AND EU ACQUIS FRAMEWORK

PhD Candidate Elarta FETAHU

Abstract

This paper examines access to education and social integration for refugees and asylum seekers in Albania within the broader framework of international refugee law and the European Union (EU) acquis. Although Albania continues to function primarily as a transit country along the Western Balkans migration route, the presence of asylum seekers, refugees, and persons granted international or temporary protection highlights the need to strengthen national systems of protection, inclusion, and long-term integration. Education plays a central role in this process, serving not only as a fundamental human right but also as a key mechanism for promoting language acquisition, social participation, and social cohesion within host communities.

The study adopts a mixed-methods research design, combining 15 semi-structured interviews with institutional stakeholders involved in migration governance, education, and refugee protection with a survey conducted among asylum seekers and refugees residing in Albania. This approach enables the analysis of both institutional perspectives and the lived experiences of persons of concern. The findings indicate that Albania has made important progress in developing a legal and institutional framework aligned with international protection standards and the EU and broader reforms related to migration governance and EU accession. The legal framework formally guarantees beneficiaries of international protection the right to access education and other essential services on equal terms with Albanian nationals.

However, the study identifies a persistent gap between legal guarantees and practical implementation. Refugees and asylum seekers continue to encounter significant barriers when attempting to access education, including language difficulties, lack of documentation, non-recognition of educational qualifications obtained in their countries of origin, and unclear administrative procedures for school enrollment. These barriers are particularly evident in preschool and higher education access and limit broader opportunities for integration.

The findings further demonstrate that education is closely linked to social inclusion and social cohesion. While Albania generally provides a relatively welcoming environment for refugees and asylum seekers, the absence of systematic language programs, integration services, and institutional coordination undermines sustainable inclusion. Strengthening access to education, improving recognition of qualifications, and expanding integration policies are therefore essential for enhancing the protection environment and supporting Albania's alignment with European standards on asylum, fundamental rights, and social inclusion.

Keywords: Refugees, Asylum Seekers, Education, Social Integration, Social Cohesion, EU Acquis, International Protection, Albania, Western Balkans, Inclusion

Introduction

In recent years, Albania has continued to function primarily as a transit country for refugees, asylum seekers, and irregular migrants traveling along the Western Balkans route toward European Union (EU) countries. Although Albania is generally not considered a destination country, it remains part of an important migration corridor used by individuals fleeing armed conflict, persecution, and instability in their countries of origin. Migration flows have fluctuated over the past decade, with increases recorded during and after the 2015 migration crisis. However, most migrants entering Albania continue their journey toward EU member states rather than remaining in the country to complete the asylum process (INSTAT, 2025; UNHCR, 2024).

Recent data confirm that Albania continues to experience mixed migration movements while the number of formal asylum applications remains relatively limited. According to the Albanian Institute of Statistics, 104 asylum seekers were registered in Albania in 2024, compared with 261 in 2023 (INSTAT, 2025). The majority of asylum seekers originate from Afghanistan, Syria, and Pakistan, reflecting broader displacement trends associated with ongoing conflicts and humanitarian crises in these regions (INSTAT, 2025). At the same time, UNHCR monitoring reports indicate that 1,388 individuals were intercepted in Albania in 2024 as part of mixed migration movements, highlighting the country’s continued role as a transit point along the Western Balkans migration route (UNHCR, 2024).

In addition to asylum seekers, Albania hosts a small number of refugees and beneficiaries of international protection. Currently, around 128 persons in Albania have been granted refugee status or other forms of international or temporary protection, including subsidiary protection (Council of Europe, 2025). Although this number is relatively small compared to other European countries, the presence of refugees and persons in need of protection highlights the importance of ensuring access to rights and services that support long-term integration and social inclusion.

Under Albanian legislation, refugees and beneficiaries of international protection have the legal right to access a wide range of services, including education, health care, employment opportunities, housing, and social protection. In principle, children granted refugee status or other forms of protection have the right to enroll in public schools under the same conditions as Albanian nationals. Access to education is particularly important as it promotes language acquisition, social participation, and the development of skills necessary for long-term integration. Schools can play a key role in supporting refugee children’s social inclusion by facilitating interaction with local communities and fostering intercultural understanding. Education is therefore widely recognized as a key mechanism for strengthening social integration and social cohesion in host societies (UNHCR, 2024).

However, despite the existence of a relatively progressive legal framework, refugees and other persons of concern (PoC) in Albania often face practical barriers when accessing services, including education. Administrative procedures, lack of documentation, language barriers, and limited institutional coordination can hinder enrollment in schools and access to other essential services. In practice, the services available to refugees are often fragmented, limited in scope, and not always sustainable over time. Furthermore, the lack of clear mechanisms for civil registration and identification may create additional obstacles. Ensuring that beneficiaries of international protection receive official identification documents and are registered in the National Civil Status Registry would provide a critical foundation for guaranteeing their rights and facilitating access to services such as education, legal assistance, health care, psychological support, social protection, accommodation, and employment.

Promoting refugees’ access to education and social services is essential for strengthening social integration and social cohesion within host communities. Effective integration policies not only

support the well-being and self-reliance of refugees but also contribute to reducing social exclusion, marginalization, and potential tensions between refugees and host populations. By ensuring equal access to education and other public services, Albania can promote inclusive development and strengthen social cohesion while fulfilling its international commitments to protect refugees and persons in need of international protection.

Given the evolving migration dynamics in the Western Balkans region, strengthening integration mechanisms and ensuring sustainable service provision remain important priorities. Improving coordination among institutions, removing administrative barriers, and expanding access to education and social services can significantly enhance the protection environment for refugees in Albania. These measures would contribute not only to the effective implementation of the national asylum system but also to the development of a more inclusive and cohesive society.

Methodology

This study employs a mixed-methods research approach to examine the experiences of refugees and asylum seekers in Albania, with a particular focus on social inclusion and access to education. The use of both qualitative and quantitative methods allows the research to capture institutional perspectives on integration policies as well as the lived experiences of refugees and asylum seekers themselves. By combining these two sources of information, the study aims to provide a comprehensive understanding of the opportunities and barriers affecting the social inclusion of persons of concern (PoC) in Albania.

The research is conceptually grounded in the understanding of integration as a dynamic and multidimensional process, involving legal, economic, social, and cultural dimensions. Social inclusion is considered a key component of this process, referring to the ability of refugees and asylum seekers to participate fully in social, economic, and community life in the host society. In this context, access to education plays a crucial role, as it supports language acquisition, skill development, and interaction with local communities, all of which contribute to long-term integration and social cohesion.

The qualitative component of the study is based on 15 semi-structured interviews conducted with key stakeholders involved in migration governance, refugee protection, education, and social services in Albania. The interviews aimed to explore institutional perspectives on policies and practices related to refugee inclusion, with particular attention to barriers and opportunities in accessing education, social services, and integration programs. The semi-structured format allowed participants to elaborate on their experiences and provide detailed insights into the challenges faced by refugees and asylum seekers in accessing education and other essential services.

In addition to stakeholder interviews, the study includes a survey conducted with asylum seekers and refugees residing in Albania. The survey aimed to collect information on the experiences and perceptions of refugees regarding their access to education, participation in social life, and access to public services. The questionnaire included both closed-ended and multiple-choice questions and gathered data on respondents' socio-demographic characteristics, educational background, length of stay in Albania, and experiences in accessing educational opportunities such as school enrollment, language courses, and vocational training. The survey also explored respondents' perceptions of their inclusion within local communities and the main barriers they encounter when attempting to access education and other services. The qualitative data obtained from stakeholder interviews were analyzed using thematic analysis, which enabled the identification of key themes related to institutional capacity, policy implementation, and service provision for refugees and asylum seekers. Survey responses were analyzed using descriptive statistical methods to identify trends and patterns regarding access

to education and experiences of social inclusion among respondents. The integration of qualitative and quantitative findings provided a broader understanding of both structural and individual-level challenges affecting refugees' access to education and opportunities for social inclusion in Albania.

Ethical considerations were carefully taken into account throughout the research process. Participation in both the interviews and the survey was voluntary, and participants were informed about the purpose of the research. To ensure confidentiality and protect the identity of respondents, personal data were anonymized and used solely for research purposes. This approach was particularly important given the vulnerability of refugees and asylum seekers and the sensitive nature of issues related to integration and access to services. Overall, this methodology provides a robust framework for assessing the current situation of refugees and asylum seekers in Albania and identifying policy and practical measures that could strengthen their access to education and promote greater social inclusion.

Institutional and Legal Framework for the Protection, Integration, and Inclusion of Refugees in Albania

Albania has developed a progressively stronger legal and institutional framework for asylum and refugee protection, largely driven by its status as a candidate country for membership in the European Union (EU) and its commitments under international refugee law. The right to seek asylum in Albania has a constitutional foundation, and the country is a signatory to the 1951 Convention Relating to the Status of Refugees and its 1967 Protocol, which establishes the fundamental principle of non-refoulement, prohibiting the return of individuals to countries where they may face persecution or serious harm. In recent years, Albania has continued to align its legislation and policies with EU *acquis* and international protection standards.

The main legal instrument regulating asylum in Albania is the Law on Asylum No. 10/2021, which replaced the previous Law No. 121/2014 and brought Albania's legal framework closer to EU directives governing international protection. The law establishes the procedures and conditions for granting refugee status, subsidiary protection, and temporary protection, as well as provisions for the cessation, withdrawal, or revocation of protection. It also defines the rights and obligations of asylum seekers and beneficiaries of international protection, including access to education, health care, employment, social protection, and family reunification. The law incorporates elements from key EU asylum directives, including standards for the reception of applicants for international protection and procedures for determining eligibility for refugee or subsidiary protection status (European Commission, 2024; UNHCR, 2024).

Complementing the asylum legislation, the Law on Foreigners No. 108/2013, as amended in subsequent years, regulates the entry, stay, residence, employment, and departure of foreign nationals in the Republic of Albania. Amendments adopted in recent years have introduced updated provisions regarding residence permits, work permits, and visa procedures, reflecting Albania's efforts to harmonize migration management policies with EU standards. Together, these laws provide the core legal basis for the protection of refugees and asylum seekers and for the regulation of migration more broadly.

Despite the progress achieved in legislative alignment, implementation challenges remain. EU progress reports and UNHCR assessments have repeatedly noted that while the legal framework largely reflects international standards, practical barriers and gaps in secondary legislation and administrative procedures can limit the effective enjoyment of rights by refugees and asylum seekers. These challenges include delays in administrative procedures, insufficient coordination among institutions, and difficulties related to documentation and civil registration, which may hinder access to essential services such as education, employment, and social protection (European Commission, 2024; UNHCR, 2024).

The institutional framework responsible for migration management and refugee protection in Albania involves several central and local government institutions. The Ministry of Interior serves as the primary coordinating authority for migration and asylum policies. Through its specialized structures, including the Department of Border and Migration and the Department for Asylum and Citizenship, the Ministry oversees border management, asylum procedures, and the administration of reception facilities for asylum seekers. The Department for Asylum and Citizenship is responsible for processing asylum applications and issuing decisions on international protection in accordance with the Law on Asylum.

Other ministries also play important roles in supporting refugee integration. The Ministry of Health and Social Protection is responsible for policies related to health care, social services, and social assistance programs that may benefit refugees and asylum seekers. The Ministry of Finance and Economy oversees employment policies, labor market integration, and vocational training opportunities that are accessible to foreign nationals legally residing in Albania. The Ministry of Education and Sport is responsible for ensuring access to education for refugee and asylum-seeking children within the national education system, while the Ministry of Justice guarantees access to justice and free legal aid services for individuals in need of protection.

In addition to central government institutions, local self-government units (municipalities) play an increasingly important role in promoting the social inclusion and integration of refugees. Albania's ongoing decentralization reforms have expanded the responsibilities of municipalities in areas such as social services, housing, education, and employment support. As a result, local authorities are often at the forefront of delivering community-based services that facilitate the integration of refugees and asylum seekers into local communities.

At the strategic level, Albania has adopted several policy frameworks addressing migration management and refugee integration. The National Migration Strategy 2024–2030 and its accompanying action plan aim to strengthen migration governance, improve institutional coordination, and enhance the protection and integration of migrants and refugees. These policies are closely linked with Albania's commitments under the Global Compact on Refugees and the 2030 Agenda for Sustainable Development, as well as with the country's broader EU accession reforms under Chapter 24: Justice, Freedom and Security.

Overall, Albania has established a relatively comprehensive legal and institutional framework for the protection and integration of refugees and asylum seekers. However, further efforts are needed to strengthen implementation, improve inter-institutional coordination, and address administrative barriers that limit refugees' effective access to rights and services, including education and social inclusion opportunities.

Background on the EU Acquis and International Legal Standards on Access to Education and Social Cohesion

Access to education and social cohesion for refugees and asylum seekers in Albania should be understood within a broader framework of international refugee law, international human rights law, and the European Union acquis, especially because Albania, like other Western Balkans candidate and potential candidate countries, is expected to progressively align its legislation and institutions with EU standards as part of the accession process. In the EU enlargement framework, asylum and migration fall primarily under Chapter 24 (Justice, Freedom and Security), while anti-discrimination, inclusion, and fundamental rights are also linked to the broader fundamentals cluster of accession reforms. The European Commission notes that candidate countries are expected to approximate and implement the acquis step by step, including in the areas of asylum, migration, and fundamental rights, and Albania's 2024 enlargement report confirms that the country adopted a National Plan for European Integration 2024–2026 to advance this process.

At the international level, the core refugee instrument remains the 1951 Refugee Convention and its 1967 Protocol. Article 22 of the Convention requires states to accord refugees the same treatment as nationals with respect to elementary education, while also requiring treatment no less favourable than that accorded to other foreign nationals in relation to non-elementary education. More broadly, the Convention establishes that refugee protection is not limited to admission and non-refoulement, but also includes access to rights necessary for a dignified life in the host state, including education and public relief.

These refugee-specific protections are reinforced by general human rights treaties that apply to everyone, including asylum seekers and refugees. The International Covenant on Economic, Social and Cultural Rights recognizes the right of everyone to education and states that primary education shall be compulsory and free to all, secondary education shall be generally available and accessible, and higher education shall be equally accessible on the basis of capacity. Importantly, Article 13 also frames education as a means to promote the full development of the human personality and to strengthen understanding, tolerance, and friendship among groups, which directly connects education to broader goals of social cohesion. Similarly, the Convention on the Rights of the Child requires states to make primary education compulsory and free, and to make secondary and higher education progressively accessible on the basis of equal opportunity. In the European human rights system, Article 2 of Protocol No. 1 to the European Convention on Human Rights protects the right to education.

Within EU law, the most relevant primary-source norms are found in the Charter of Fundamental Rights of the European Union. Article 14 provides that everyone has the right to education and access to vocational and continuing training, including the possibility to receive free compulsory education. Article 21 prohibits discrimination on a wide range of grounds, which is especially important for refugees and asylum seekers who may otherwise face exclusion from schools, services, or community life. Together, these Charter guarantees frame education not only as an individual entitlement but also as a foundation for equal participation and inclusion.

At the level of the Common European Asylum System (CEAS), the EU *acquis* has long required member states to ensure reception conditions and procedural guarantees for applicants for international protection. This framework was further revised in 2024 through the adoption of the new EU Pact on Migration and Asylum, including Directive (EU) 2024/1346, which lays down standards for the reception of applicants for international protection. In parallel, the EU continues to treat integration as a policy priority. The Commission’s Action Plan on Integration and Inclusion 2021–2027 is guided by the principle of “inclusion for all” and identifies education, employment, health, and housing as key areas for successful participation in society. Although not part of the binding accession *acquis* in the same way as asylum directives, this policy framework is highly relevant for candidate countries because it shapes the standards and expectations around migrant inclusion and social cohesion across Europe.

For Western Balkans candidate and potential candidate countries, approximation to the EU *acquis* therefore involves more than formal asylum procedures. It increasingly requires the development of inclusive institutions, effective access to education, anti-discrimination safeguards, and integration measures that reduce exclusion and support coexistence between newcomers and host communities. In Albania’s case, this means that improving access to school enrolment, language support, recognition of prior learning, and civil registration is not only a matter of domestic policy, but also part of the country’s wider alignment with European legal and policy standards on asylum, inclusion, and fundamental rights. The EUAA–Albania Roadmap for 2024–2027 reflects this direction explicitly by aiming to strengthen Albania’s asylum and reception systems in line with the CEAS and EU standards.

Main findings

Access to education

The Constitution of the Republic of Albania stipulates who is eligible to gain access in education and the compulsory education (Article 57). In general terms, the Law on Asylum (Article 63/d) provides beneficiaries of international protection (those with refugee status and subsidiary protection) with the right to pre-university and higher education without restrictions. Meanwhile, minor applicants (Article 59 LoA) and persons enjoying temporary protection (Article 86/ç LoA) have the right to pre-university education with the same conditions on equal terms with Albanian nationals. Even family members of the refugee who have benefited from family reunion are eligible for education in public institutions (Article 74/a). Based on the data from the survey with the targeted strategy group, 25% of the persons surveyed state that they or members of the family are registered education programs, 16% in primary education, 3% in secondary education and another 3% in post-university. A considerable number of them (41%) outline a list of challenges that hamper their access to the education system, including: non-recognition of certificates and diplomas from the country of origin; language barriers; lack of time; inability to afford the fees; failed attempts; and unclear procedures. As a result, these challenges have left many of them unsatisfied with access to the education system (only 19% of those surveyed, claim to be satisfied with these services). Currently, there are 44 children and youth who are admitted in the country's education system.

In general, the educational level of refugees and asylum seekers varies due to a series of factors related primarily to integration in Albania and even their proficiency of the Albanian language. Lack of proficiency in Albanian often becomes an obstacle for not attending educational institutions. Persons with temporary protection have in average a high level of education, which is generally in par with the local population. These persons have integrated quickly into the education system, helped in part by the fact that they have good Albanian language skills and have been in Albania for a relatively long time.

Pre-university education

The right to access the pre-university system is regulated by Law. No. 69/2012 “On the pre-university education system in the Republic of Albania.” Families of asylum seekers or persons who have been granted protection in Albania have limited access to pre-school public education institutions. The admission into kindergarten of children of persons who have been granted protection in Albania is challenging given there are no concrete provisions or procedures on their admission and registration. The request to attend crèches is very high, but currently only x children have been registered in the preschool system. Evidently, there is a lack of cooperation and even resistance to admit and register refugee children in pre-kindergarten. This is an issue that needs to be addressed by public institutions, as it becomes an obstacle for the employment of children who are required to stay at home and take care of the children, in absence of this service by public institutions. RMSA assists in this regard continually and monitors the registration of children in kindergarten and crèches on a case by case basis.

Primary and Secondary Education

As mentioned above PoC have the right to education in Albania. To enable them to exercise their rights on education, in a legal and practical manner, it is necessary to consider the main procedural issues, which are: request for registration in the education system, evaluation of the level of competency prior to admission, the level of education in compulsory education and their proficiency in Albanian language. LoA (Article 59) anticipates that attendance by minor

applicants of pre-university education, shall begin within three months from the date of submission of the application for international protection.

For cases of minor asylum seekers who have been granted protection in Albania, there are no specific provision on various critical issues such as: evaluation of their level of competence or verification of their Albanian language proficiency used for their admission in school. Currently, there are no official practices, but ad hoc ones for the registration of children in public education institutions. The 9 year cycle of education is mandatory even for asylum seekers, however, when children need to register at school, they are required to submit a proof of their residence. Due to their high mobility, refugees and asylum seekers find it difficult to secure such a document. In current practices, it is underlined that often schools are hesitant to admit students who are children of refugees. This hesitation is often a result of the limited knowledge of the school staff or its administrators related to the target group.

RMSA mediates and facilitates in all cases to ensure registration and even provides assistance to cover expenses related to fees, textbooks, uniforms and other school materials. Cases are managed in a case-by-case basis, depending on the goodwill of school directors, given the lack of sub-legal acts on specific procedures needed by cases of asylum seekers or those who have been granted asylum.

Assessment of Knowledge Level before Admission

The evaluation to determine the grade of the student registered is conducted by the local education authority, which covers institutions in which refugees are registered. The Ministry of Education, Sports and Youth, determines the evaluation criteria through which children of refugees are assessed to determine their grade level. The value of the scholarship and the criteria for its determination are established through a ministerial order issued by the responsible ministry. The evaluation of the competences and conversion of grades obtained for children of asylum seekers is achieved through ad hoc commissions established by the Educational Directory at schools where students have been admitted.

Similarly to Albanian nationals, children who have been granted asylum must attend an in person meeting with authorities from the educational institution. This is a major obstacle for asylum seekers and refugees who do not have the necessary documents on their educational qualifications due to the circumstances in which they have left their country of origin. RMSA assist in this process by facilitating and continually monitoring their admission in schools.

Albanian Language Proficiency

Another issue related to the right to education is the right to learn Albanian, considering this is a fundamental component for benefiting from public education. Currently, children must prove proficiency in Albanian language at a level corresponding with natives, and not that of a foreign language, as is the case with foreign nationals who want to study in Albania. Even though the 1952 Convention on Refugees, Article 22, recommends that States must provide refugees a generic training more favourable compared to foreigners pertaining to primary education (Reception Directive (2013/33/EU, amended). Simplification of procedures to avoid the barriers related to provision of documents is necessary for registration at the school. It is also important to draft a sub-legal act to determine and clarify the obligations of School Directories on accepting and registering children of refugees in the areas where they reside.

Higher Education

The Law on Higher Education guarantees the right to study individuals who become eligible through special legislation. LoA (Article 63/d) provides that a person enjoying refugee status

and subsidiary protection status has the right to pre-university and higher education, on the same terms as Albanian nationals.

Guideline No. 32/2009 for the Procedure of Acceptance and Assessment of Students who have been granted asylum in the Republic of Albania provides that the procedures for approval and assessment of the level of competences are regulated by sub-legal acts and decisions. As per the legal framework, a series of issues that need to be addressed in due time are highlighted, including:

Directive No. 32/2009 for the acceptance and assessment procedure of students who have been granted asylum in the Republic of Albania, adopted in 2009 and based on laws related to primary and secondary education in 1995 and 2002, as well as the Law No. 9098 of 07/03/2002 “On the integration and family reunion of persons who have been granted asylum in the Republic of Albania.” These laws are repealed by the Law on Asylum and until now, no law or sub-legal act has been passed to replace them. The Law on Higher Education No. 80/2015 has no special provision on foreign nationals or those who have been granted asylum. In this regard, the documentation related to previous education constitute an obstacle for those refugees who are not in possession of the necessary documents due to their special circumstances they find themselves in, where they had to leave for fear of prosecution.

Another major issue relates to the unification of education systems and for the recognition of previous qualifications through aptitude tests. Although some asylum seekers may have good educational qualifications, insufficient documentation of their credentials excludes them from the right to higher education. This represents a great major legal obstacle as it makes it unfeasible to ask other refugees and other persons in protection to provide proof of formal qualifications to permit them to exercise their right to education.

In practices, there are no recorded cases of reimbursement for expenses related to higher education institution by relevant asylum authorities. RMSA has facilitated a private cooperation agreement for the reimbursement of salaries for some students attending universities. Case after case, fees have been reimbursed partially by universities and the rest by RMSA. As highlighted above, procedural gaps represent various obstacles for the admission of asylum-seeking children and those who have been granted asylum in public education institutions in Albania. This is due to the fact that not all are able to be issued identification documents and not many have a sufficient command of Albanian at a native level as their peers and would-be classmates. Lastly, Albania’s current legal framework does not provide for the necessary procedures required to facilitate the fulfilment of the right to lower education, in line with international standards. The recognition of their diplomas and qualifications is a determinant factor for their successful integration in Albania.

Social integration and social cohesion

Integration and the inclusion of PoC in the Albania culture is closely linked to the prevention of discrimination and reduction of barriers to access of rights and quality services. Persons enjoying refugee and subsidiary protection status shall be provided with the opportunities to learn the history, language and culture of the Republic of Albania.

Learning of the Albanian language and educational curricula in education

Acquisition of Albanian language is a precondition for the integration of PoC in the education system. The acquisition of the Albanian language is highly advisable not only because it helps them register with public education institutions, but also because it serves as a basis for further integration in Albania. Guaranteeing the right to education is an important element in the chain of integration, as it drastically improves their chances for integration with the country’s

economic, social and cultural life. In addition to language course, refugees should be provided with courses on integration and brochures with practical information on the host country, its institutions, and the services available to these groups. Law on asylum stipulates that educational programmes and free legal counselling are provided in cooperation with other private, public, domestic, or foreign entities and in compliance with the rights of applicants and refugees.

Currently, there are no Albanian language courses as a second language offered by state institutions in Albania, due to the lack of institutional structures. Furthermore, in current practices, state institutions have not offered any courses on integration. Although there are no provisions on Albanian language courses for asylum seekers, there are good existing practices on seasonal courses offered to special categories such as returned emigrants and children of foreign nationals residing in Albania. As the responsible institutions to assess the need for Albanian language courses, local educational institutions must also assess the need for language courses for the children of asylum seekers and persons granted protection.

The majority of the respondents (69%) state that they have attended courses for foreigners on social-cultural aspects (50% language courses, 9% driver license course). Around half of them report that they are happy with the level of access to these courses. Currently, the RMSA funds individual and group language courses in Albanian-Persian for refugees. Social and cultural activities organized by RMSA create opportunities for learning the host country's culture and traditions as well as those of their origin. Nonetheless, in practical terms, this is not a sustainable long-term solution as it is financially reliant on continued funding from UNHCR.

Social Cohesion

The promotion of tolerance and acceptance of PoC in society is fundamental to their inclusion, social cohesion and integration in local communities.

Law No. 10 221 of 4.2.2020 “On protection from discrimination” guarantees the right of each person for equality before law and equal protection, chances and opportunity to exercise their rights, to enjoy the rights, to engage in public life and to be provided with effective protection against discrimination and all forms that incite it. This law is applicable for all Albanian citizens as well as non-Albanians who live and reside in Albania.

Although the law does not exclude asylum seekers, and persons under international protection, these groups are not specifically mentioned in the law or any ensuing sub-legal acts as a vulnerable group to discrimination, with specific needs to be protected against inequality. There is a predominant positive perception among the public, police authorities and institutions towards refugees and asylum seekers in Albania. This tendency can in part be attributed to Albania's past history with the phenomenon considering it is a country with a large diaspora who immigrated after 1990. The fact Albania is still considered as a country of origin for asylum seekers, makes Albanians more understanding and empathic toward the circumstances faced by refugees and asylum seekers who are seeking to escape armed conflicts. In turn, the welcoming culture enhances the chances that these persons feel more accepted in Albania. Regardless of this, there have been sporadic instances of non-sociable behavioural conduct by asylum seekers in Babrru area. Media plays an important role in promoting negative stereotypical views on these groups. Nonetheless, those surveyed do not report any cases of discrimination, despite the fact that they do not rule out the possibility of having faced forms of covert discrimination. Data extracted from on the survey with PoC state that some (19%) of them have felt discriminated against due to their ethnicity, nationality and social status. Meanwhile, a smaller percentage of them are part of religious communities or other forms of

social enterprises in Albania, which highlights the need for more awareness and socio-cultural activities.

According to the interviews with the staff of RMSA, refugees and asylum seekers report that up to a certain level they feel accepted in Albania due to the emotional sensibility, empathy and the affinity that Albanians have in general toward these groups. This positive approach is also reflected in the statements provided by the interviews who agree with the statement that there exists a welcoming climate toward refugees and asylum seekers (56%); or that Albania makes me “feel at home” (72%). Asked about their future plans, the majority of those interviewed state that they wish to stay in Albania (75%), a limited number of them report to not have concrete plans (3%), while some others (3%) see their future in a different country. Cultural similarities are often used as an effective form for integration in society. Reportedly however, the media creates a negative image of these groups by focusing on their vulnerabilities and portraying them in a negative light. On the other hand, the awareness of the general public and public authorities related to the culture and traditions of these groups is relatively low.

Although the educational staff and local authorities maintain a generally positive approach in rapport to these groups, it is important to launch awareness campaigns related to important themes such as multiculturalism, hate speech, discrimination and other activities that promote mutual understanding and inter-cultural dialogue.

Conclusion

This study has examined the situation of refugees and asylum seekers in Albania through the lens of access to education, social inclusion, and social cohesion, situating these issues within Albania’s broader legal obligations and EU approximation process. Although Albania continues to be primarily a transit country along the Western Balkans route, the presence of asylum seekers, refugees, and persons granted international or temporary protection demonstrates that the country must also strengthen its capacity as a country of protection and inclusion. Even if the number of persons granted protection remains relatively small, their access to rights and services is a critical indicator of the effectiveness of the national asylum and integration system.

The findings of this study show that Albania has made important progress in developing a legal and institutional framework that is broadly aligned with international refugee law and the European Union acquis. The adoption of the Law on Asylum No. 10/2021 and the broader harmonization of migration legislation with EU standards have created a relatively solid legal basis for the protection of refugees and asylum seekers. In formal terms, beneficiaries of international protection are entitled to education, health care, employment, social protection, and other essential rights. This legal progress reflects Albania’s commitments under the 1951 Refugee Convention, international human rights instruments, and the EU accession process.

At the same time, the research demonstrates a clear gap between rights guaranteed in law and rights effectively enjoyed in practice. Access to education emerged as one of the most important but also one of the most problematic dimensions of integration. The survey and interview findings indicate that many refugees and asylum seekers continue to face significant barriers, including lack of documentation, non-recognition of prior qualifications, language difficulties, unclear admission procedures, and inconsistent practices across educational institutions. These barriers affect access to pre-university, higher, and in some cases preschool education, thereby limiting not only learning opportunities but also wider prospects for long-term integration.

The study also confirms that education is central to social inclusion and social cohesion. Access to school, language learning, and vocational or higher education is not only a legal entitlement,

but also a pathway to participation in community life, economic self-reliance, and interaction with host communities. In this sense, exclusion from education has consequences that go beyond the classroom: it reinforces dependency, marginalization, and the risk of social isolation. By contrast, inclusive access to education helps foster language acquisition, mutual understanding, and a stronger sense of belonging among refugees and asylum seekers.

A similarly mixed picture emerges in relation to social integration and social cohesion. On the one hand, the study suggests that Albania generally offers a relatively welcoming social environment, shaped in part by the country’s own migration history and a degree of public empathy toward displaced populations. Many respondents reported feeling accepted, and a significant share indicated their willingness to remain in Albania. On the other hand, experiences of discrimination, limited participation in community structures, insufficient awareness among public institutions, and the absence of sustainable integration services reveal that inclusion remains fragile. Positive attitudes alone are not enough; they must be supported by concrete policies, services, and institutional practices.

Overall, the study concludes that Albania stands at an important point in the development of its asylum and integration framework. The country has laid down many of the necessary legal foundations, but implementation remains uneven, especially in relation to access to education, documentation, civil registration, language support, and coordination among institutions. Strengthening these areas is essential not only for fulfilling legal obligations, but also for building a more inclusive and cohesive society. Greater investment in sub-legal acts, institutional coordination, local service delivery, language programs, recognition of qualifications, and anti-discrimination measures would significantly improve the protection environment for refugees and asylum seekers.

In conclusion, the successful inclusion of refugees and asylum seekers in Albania depends on moving beyond a narrow focus on transit and emergency response toward a more sustainable model of rights-based integration. Education should be placed at the center of this effort, alongside broader measures that promote participation, equality, and social cohesion. Such an approach would benefit not only refugees and asylum seekers themselves, but also Albanian institutions and communities, by strengthening social inclusion and advancing the country’s broader European integration agenda.

References

- Council of Europe. (2025). *GRETA evaluation report on the implementation of the Council of Europe Convention on Action against Trafficking in Human Beings by Albania*. <https://rm.coe.int/greta-evaluation-report-on-the-implementation-of-the-council-of-europe/1680b65f41>
- European Commission. (2020). *Action plan on integration and inclusion 2021–2027*. <https://home-affairs.ec.europa.eu>
- European Commission. (2024). *Albania 2024 report*. <https://neighbourhood-enlargement.ec.europa.eu>
- European Union. (2012). *Charter of Fundamental Rights of the European Union*. Official Journal of the European Union. <https://eur-lex.europa.eu>
- European Union. (2013). *Directive 2013/33/EU of the European Parliament and of the Council of 26 June 2013 laying down standards for the reception of applicants for international protection*. Official Journal of the European Union. <https://eur-lex.europa.eu>
- European Union. (2024). *Directive (EU) 2024/1346 of the European Parliament and of the Council laying down standards for the reception of applicants for international protection*. Official Journal of the European Union. <https://eur-lex.europa.eu>
- INSTAT. (2025). *Asylum seekers in Albania, 2024*. Institute of Statistics, Albania. <https://www.instat.gov.al>
- Republic of Albania. (2012). *Law No. 69/2012 on the pre-university education system in the Republic of Albania*.
- Republic of Albania. (2015). *Law No. 80/2015 on higher education and scientific research in higher education institutions in the Republic of Albania*.
- Republic of Albania. (2021). *Law No. 10/2021 on asylum in the Republic of Albania*.
- United Nations. (1951). *Convention relating to the status of refugees*. <https://www.unhcr.org>

United Nations. (1966). *International Covenant on Economic, Social and Cultural Rights*. <https://www.ohchr.org>
United Nations. (1967). *Protocol relating to the status of refugees*. <https://www.unhcr.org>
United Nations. (1989). *Convention on the Rights of the Child*. <https://www.ohchr.org>
UNHCR. (2024). *UNHCR Albania fact sheet*. <https://reliefweb.int>

INSIDE THE EXPERIENCE: AI, EMOTIONS, AND MEANING IN BUNKART VISITORS’ NARRATIVES

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Abstract

This study analyzes the experiences of visitors to the historical-cultural site BunkArt, expressed through their comments and reviews on the online platform TripAdvisor. Cultural-historical heritage plays an important role in shaping the tourist image of a country, thus influencing the tourist flows in it. In this perspective, knowing the perceptions of visitors regarding the experiences they have had during their visits to these cultural heritage sites is imperative to model a tourist offer in line with the expectations they have.

To perform this analysis, all the comments and ratings made online on the TripAdvisor platform during the years of operation of BunkArt were collected, and then were analyzed using the content analysis approach. During the study, the methods of thematic analysis, semantic clustering and sentiment analysis were combined, in order to identify the main themes encountered in these comments, as well as to build a typology of BunkArt visitors. Also, from the analysis carried out, interesting conclusions were drawn about the strengths of BunkArt as a historical site, as well as on the changes that can be made in order to increase the level of attraction for tourists interested in historical tourism. The study also proposes a conceptual model that combines historical content, the structure of the experience and the evaluation of visitors as shapers of visitor experiences, which in turn leads to identifying the typologies of site visitors.

Keywords: Cultural Heritage Experience, Content Analysis, Visitor Typology, Sentiment Analysis, Albania

1. Introduction

The rapid development of digital technologies has changed the way tourists search for information, appreciate destinations and share their travel experiences (Buhalis & Law, 2008). The ascent and proliferation of User-Generated Content (UGC) platforms have, in particular, opened up new opportunities for researchers and practitioners to develop a better understanding of visitor perceptions, attitudes and behaviors. The comments, reviews and ratings published on platforms such as TripAdvisor, Google Reviews or Booking.com are an important source of information as they reflect in an authentic and spontaneous manner the experience of tourists without the direct intervention of the researcher (Gretzel & Yoo, 2008; Xiang & Gretzel, 2010). Hence, UGC has become one of the most important data sources for contemporary research in tourism (Lu & Stepchenkova, 2015).

In the tourism sector, cultural and historic heritage attractions enjoy a particular status, since they contribute to the preservation of collective memory, the promotion of cultural identity and the strengthening of the competitiveness of tourist destinations. Cultural tourism is not only a visit to historical objects or monuments or sites, but a way of creating meaningful, emotional and memorable experiences for the tourists (Richards, 2018). In this sense, tourists are no longer seen as passive recipients of information, but rather as active participants in the interpretation and construction of the meaning of cultural heritage.

An especially interesting case for the study of the visitor experience is that of BunkArt, a museum in the Albanian capital, Tirana, located in a bunker built during the communist regime. Initially constructed as a defensive structure for the political elite of the regime of Enver Hoxha, the bunker has been transformed into a museum space that integrates elements of historical interpretation, art exhibitions and narrative storytelling. Therefore, BunkArt is a unique blend of cultural, heritage and dark tourism, allowing visitors to immerse themselves in an authentic historical setting and reflect on an important era of Albanian history. This duality makes BunkArt an ideal occasion to reflect on how visitors construct, interpret and assess their experience (Biran et al., 2011).

The study of visitor experience at cultural attractions has grown a lot in the last few years, but much of this work has been based on fairly limited analysis. Much of the research has focused mainly on identifying the topics discussed by visitors through thematic analysis or measuring the emotional tone through sentiment analysis (Kirilenko et al., 2018). At the same time, there has been less effort in analyzing the semantic structure of comments and in identifying different segments of visitors depending on how they describe their experience. This results in a lack of deep understanding of the multi-dimensionality of the tourist experience (i.e. not only what visitors talk about but also how they interpret and evaluate the experience).

Recent progress in the fields of Artificial Intelligence (AI), Natural Language Processing (NLP) and Machine Learning offers powerful tools to address this challenge. Topic modeling, semantic clustering and sentiment analysis are methods that allow to reveal hidden patterns in large text collections and to extract knowledge which is hard to detect by traditional methods (Blei, 2012; Liu, 2012). The combination of these approaches enables the tourist experience to be analyzed in a more comprehensive manner integrating cognitive, emotional and evaluative dimensions.

In this line, this study is focused on analyzing the visitor experience on BunkArt by a multidimensional approach based on reviews published on TripAdvisor platform. The content, structure and emotional appraisal of the visitors' narratives are examined through thematic analysis, semantic clustering and sentiment analysis respectively. The aim of this approach is to identify the main themes that characterize the visitor experience, to discover semantic patterns and different tourist segments, to analyze emotional perceptions and to build a conceptual model that explains the formation of the tourist experience in a cultural heritage attraction.

The main objectives of this study are: (1) identifying of the dominant themes from visitor comments; (2) uncover the semantic patterns and segmentation of visitors into different typologies; (3) sentiment analysis and emotional assessment of the experience; and (4) the proposition of a conceptual model associating thematic content, experience structure and emotional assessment to the formation of visitor typologies.

Thematic and sentiment analysis have been proved useful for the study of tourist experience in the existing literature (Ali et al., 2022). However, the combination of thematic and sentiment analyses with semantic clustering has not been much explored by researchers, which could help understand what tourists talk about, how they structure their experience, and how they emotionally evaluate it at the same time. This study attempts to bridge exactly this gap by suggesting a triangulation approach that combines thematic analysis, semantic analysis and sentiment analysis into one analytical framework.

This study makes two distinguishing contributions. Methodologically, it shows the potential of the combination of Artificial Intelligence and NLP techniques to analyze tourist experiences based on user-generated content. Theoretically, the study proposes a conceptual model, which integrates cultural heritage content, experience structure and emotional evaluation as key elements in shaping the visitor experience and their typologies. Furthermore, the results suggest

practical recommendations for managing cultural attractions, contributing to the design and management of the visitor experience.

2. Literature Review

2.1. Visitor Experience in Cultural Tourism

The concept of visitor experience has been central to contemporary tourism literature, particularly after the emphasis shifted from the tourism product to the tourism experience. Pine and Gilmore (1999) have argued that the modern economy is moving away from goods and services and towards meaningful and memorable experiences. In this context, the visitor experience is conceptualized as a multidimensional construct with cognitive, affective, and behavioral/operational components (Otto and Ritchie, 1996; Kim et al., 2012).

In the case of cultural tourism, the experience comprises not only obtaining information about an attraction but also includes personal interpretation of the story, interaction with the cultural environment and emotional reaction to the presented content (Poria et al., 2003). This makes the tourist experience an active, meaning-building process, as visitors interpret and re-interpret historical narratives in terms of their prior experience and knowledge.

2.2 Heritage Interpretation and Understanding

The theory of heritage interpretation is one of the most important theories for understanding the experience of cultural and historic heritage attractions. Tilden (1957) argues that the purpose of interpretation is not simply to transfer information but to build meaningful connections between the visitor and the source of the inheritance. In this perspective, interpretation is a process of turning historical facts into stories and experiences accessible to the public (Chronis, 2012).

More recent research has shown that the quality of interpretation has a direct impact on the level of emotional engagement, visitor satisfaction and long-term memory of the experience (Moscardo, 1996). A good interpretation at museums and historic sites helps visitors to understand the historic context and to connect emotionally with past events and characters.

2.3 Experience Economy and Experience Dimensions

Pine and Gilmore (1999) significantly contributed to the studies in tourism and attraction management with their Experience Economy theory. The authors argue that successful experiences are built on four main dimensions: education, entertainment, aesthetics and escapism.

In cultural heritage, the educational dimension is related to the acquisition of historical knowledge, and the emotional and aesthetic dimension is related to the way visitors experience and interpret the cultural environment (McIntosh & Prentice, 1999). Education and emotional engagement combined have been found to generate greater satisfaction and enhance the likelihood of visitors remembering the experience as memorable (Kim et al., 2012).

This is particularly true for BunkArt, where the confluence of history, authentic architecture and narrative elements generates a complex and immersive experience.

2.4. User-Generated Content as a Data Source in Tourism

This is particularly true for BunkArt, where the confluence of history, authentic architecture and narrative elements generates a complex and immersive experience. Comments and ratings published by tourists are regarded as a valuable source of information as they reflect real and unfiltered experience (Gretzel & Yoo, 2008).

UGC has several important advantages over traditional data collection methods, according to the literature (Marine-Roig & Anton Clavé, 2015). Firstly, it allows for the analysis of a large number of observations at relatively low cost. Secondly, it reduces the effect of the intervention

of the researcher and allows the detection of spontaneous reactions from the visitors. However, the use of UGC also has limitations such as self-selection bias, lack of demographic information, and cultural differences in opinion expression (Xiang & Gretzel, 2010). Despite these limitations, UGC has become one of the main data sources for the analysis of tourist experiences and consumer behavior in digital environments (Filieri et al., 2015).

2.5. Methods of Analysis for Visitor Experiences Study

The processing of large amount of textual data has fostered the use of Artificial Intelligence and Natural Language Processing techniques in tourism research. Thematic analysis has been widely used in topic modelling methods to extract the main subjects addressed in visitors' comments (Blei, 2012). Likewise, sentiment analysis allows measuring emotional valuations and detecting positive, neutral or negative attitudes towards different experience elements (Liu, 2012).

However, most of the existing studies only focus on thematic analysis or sentiment analysis, analyzing content and emotional assessment separately. The analysis of the semantic structure of narratives and the identification of typologies of visitors based on the way they describe their experience has received less attention. As a consequence, there is a lack of literature regarding the integration of thematic analysis, semantic clustering and sentiment analysis into a single analytical framework.

To address this gap, this study proposes a triangulation approach of thematic analysis, semantic analysis and sentiment analysis. This method allows to know not only what visitors are talking about, but also how they structure their experience and how they evaluate it emotionally, giving a more complete picture of the visitor experience in cultural heritage attractions.

3. Methodology

3.1. Data source

This paper is based on an analysis of visitor comments published on the TripAdvisor platform for BunkArt, one of the most visited attractions of cultural heritage in Albania. User-generated content (UGC) is a rich source of information for research of tourist experience because it reflects the spontaneous perceptions and evaluations of visitors (Gretzel & Yoo, 2008).

The dataset consists of 1,273 reviews from local and foreign visitors, which were online during January 2026. Comments and reviews and other online visitors' details of interest were collected utilising online evidence extraction tools (appify.com) through Python scripts. The comments were translated into English and merged into one database for a joint linguistic analysis. The unit of analysis was the individual visitor comment. Evidence database analysis was performed in the Python environment, using a notebook structure for executing data processing steps. The dataset was read and filtered using *pandas* and *openpyxl* was used as the *pandas* read driver for Excel file management. Then, the collected reviews and comments were all translated to the English language, using built-in translating functionalities of Microsoft Office 365. The basic text handling relied on the *nlTK* (Natural Language Toolkit) library, mainly used for removing common irrelevant words in the English language.

3.2. Data Preparation

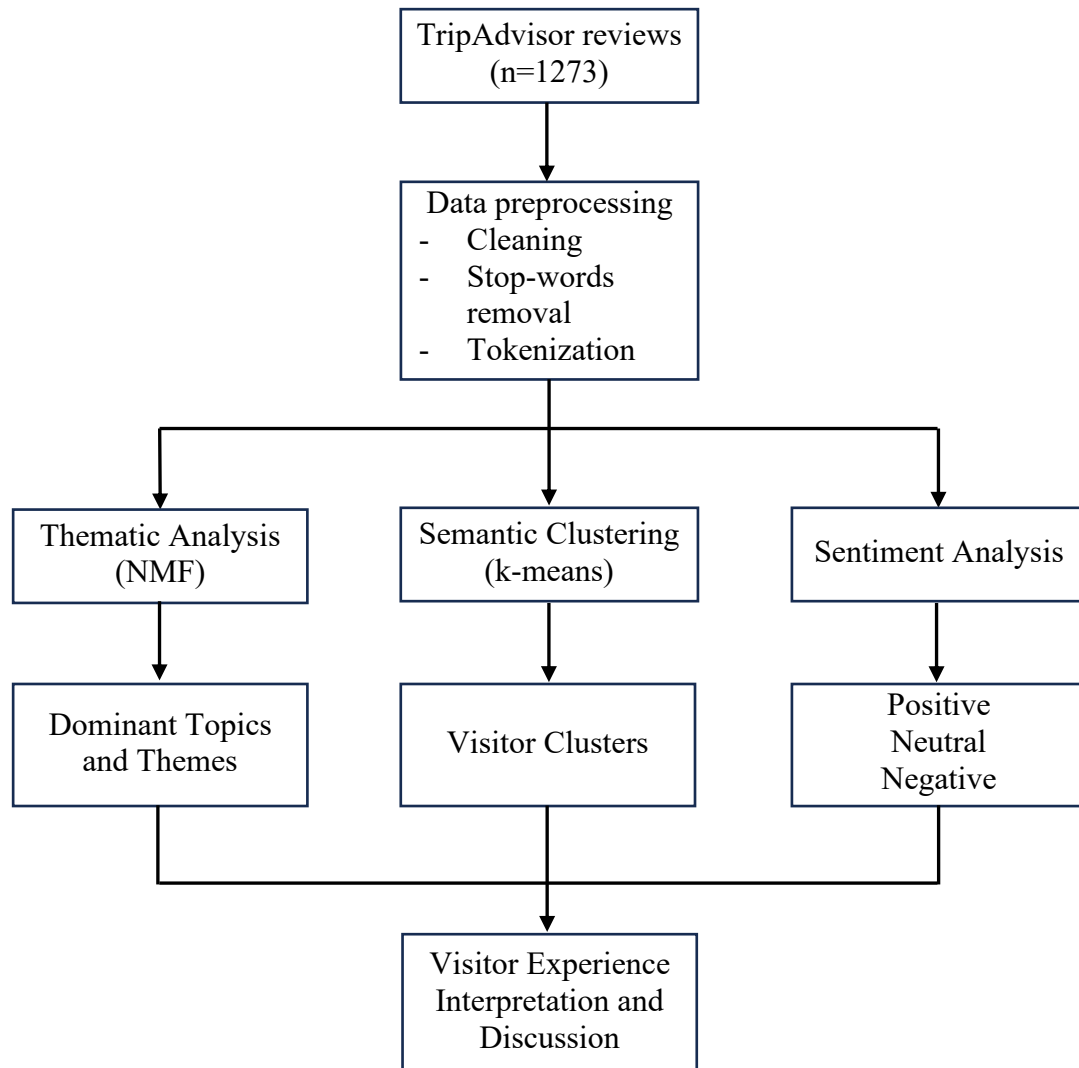
Prior to the application of analytical methods, the textual data underwent a preprocessing step to standardize and enhance the quality of the textual corpus. The process followed these steps:

- Conversion of text to lowercase;
- Elimination of punctuation marks, numbers and special characters;
- Stop words elimination;
- Words normalization through tokenization;

- Term-document matrix construction for further analysis.

The text was then transformed using the TF-IDF (Term Frequency–Inverse Document Frequency) method that finds more representative words in the dataset and reduces the effect of very common words (Manning et al., 2008).

Figure 1: Methodological framework of the study



3.3. Thematic Analysis

Non-negative Matrix Factorization (NMF) was employed to detect the main topics of comments and reviews, as it has proved to be one of the most recurrent techniques in automatic topic discovery in large textual collections (Blei, 2012).

NMF decomposes the TF-IDF matrix into two matrices that only contain positive values, so we can spot clusters of words that are used over and over again in the text (Lee & Seung, 1999). Each set of words is treated as a topic and each comment is represented as a distribution of weights on the identified topics (Braun & Clarke, 2006).

After results analysis and keywords interpretation, the topics were manually named to reflect their semantic content. The dominant theme of each comment was identified as representing the main aspect of the visitor's experience.

3.4 Clustering semantics

Semantic clustering analysis was used to identify similarities between comments and to find different patterns of visitor experience. To this end, the K-Means algorithm was used, which is one of the most used techniques for the clustering of text data (Jain, 2010; Pedregosa et al., 2011).

The analysis was performed on the comments' TF-IDF representation. The algorithm clustered comments into different groups based on their semantic similarity, minimizing the within-cluster variance and maximizing the between-cluster variance.

The clusters were interpreted by analyzing the most characteristic terms and the most representative comments of each group. The procedure enabled the identification of different segments of visitors based on the way they describe and experience visiting BunkArt.

3.5. Sentiment Analysis

The sentiments of comments were analyzed to identify the emotional tone of the comments (Hutto & Gilbert, 2014). This approach has been widely applied in tourism studies to determine emotional attitudes and reactions of tourists to tourism products and services (Liu, 2012).

Each comment was categorized into one of three main categories:

- Positive sentiment
- Neutral sentiment
- Negative sentiment

The results of the sentiment analysis were used to assess the overall opinion of visitors towards BunkArt and to identify aspects of the experience that produce either positive or negative feedback.

4. Data analysis and interpretation

4.1. Step 1: Thematic Analysis

The first step in the analytical process is the thematic analysis. This analysis is performed in order to identify the main themes characterising the visitor experience on BunkArt. In studies based on User Generated Content (UGC), thematic analysis is a popular method used to unveil major dimensions of visitor discourse and to identify aspects of the experience that are deemed most important (Blei, 2012).

Thematic analysis was performed using the Non-negative Matrix Factorization (NMF) technique which allows to identify latent themes in large amount of texts. NMF is particularly well-suited to analyze online comments, because the themes it produces are more interpretable than those from other topic modeling techniques (O'Callaghan et al., 2015).

With the data pre-processed and the TF-IDF matrix constructed, the algorithm revealed a set of dominant themes that describe the main ways visitors perceive and experience BunkArt. The topics were interpreted by identifying the most representative keywords for each topic and reviewing the comments with the highest thematic weight.

The results revealed that the visitor experience is structured around several key dimensions: history, education, emotions, authenticity of the environment, and practical aspects of the visit. Main themes and details about each theme are presented in Table 1:

Table 1. Main themes identified from the analysis of reviews and comments of BunkArt visitors

Theme	Representative key words	Theme description	Selected related comments
Communist era history and collective memory	communism, dictatorship, history, regime, Albania, political	Visitors focus on the history of the communist regime, the mechanisms of political control and their impact on Albanian society.	“A fascinating insight into Albania’s communist past and the realities of life under the regime.”
Educational experience and history learning	learn, information, educational, exhibition, understanding, knowledge	BunkArt is perceived as an educational tool that helps visitors understand the modern history of Albania.	“One of the best places to learn about Albania’s recent history.”
Atmosphere and authenticity	bunker, underground, authentic, structure, tunnels, rooms	The comments emphasize the authenticity of the bunkers and the immersive experience of exploring underground spaces.	“Walking through the bunker feels like stepping back into another era.”
Emotional experiences and psychological impact	emotional, moving, shocking, impressive, reflection, powerful	Visitors describe strong emotional reactions and reflections on the historical events presented.	“The experience was both moving and thought-provoking.”
Museum exhibitions and artistic interpretation	exhibition, museum, art, displays, photos, installations	Focus on the quality of the exhibitions, the historical documentation and the artistic elements of the museum.	“The exhibitions are well-curated and provide excellent context.”
Practical aspects of visit	guide, accessibility, entrance, tickets, signs, information	It includes comments on the organization of the visit, orientation, audio guides and ease of access.	“The museum is interesting, but better signage would improve the experience.”
Overall evaluations and recommendations	recommend, worth, visit, must-see, experience	Visitors give general ratings and recommendations to other tourists.	“A must-see attraction for anyone visiting Tirana.”

Source: Own research

4.1.1 General interpretation of thematic results

Overall, the thematic analysis shows that the visitor experience at BunkArt is based on three main dimensions:

1. *Cognitive dimension*, related to learning from history and interpretation of heritage;
2. *Emotional dimension*, related to psychological reactions and individual experiences;
3. *Operational dimension*, related to the organization and management of the visit.

The prevalence of historical and educational themes indicates that the BunkArt is predominantly seen as an attraction for historical learning and reflection. At the same time, the importance of emotional themes and authenticity indicates that visitors value the museum not only for the information it provides, but also for the way it creates an immersive and meaningful experience.

4.2. Step 2: Semantic Clustering (K-Means)

Once the main topics were identified through a thematic analysis, the second phase of the study was to analyze the semantic structure of the visitor comments. While thematic analysis tries to find out what visitors talk about, semantic clustering tries to understand how they describe and structure their experience. The two approaches are complementary: thematic analysis is concerned with the content of the discourse, while semantic clustering is concerned with the similarities and differences between visitor narratives (Aggarwal & Zhai, 2012).

Clustering process was performed employing K-Means algorithm, one of the most used methods in textual data analysis because of its efficiency and ability to identify homogeneous clusters within large textual corpuses (Jain, 2010). TF-IDF representation of comments was used for analysis. Each comment was treated as a multidimensional vector. The algorithm grouped the comments by minimizing the variance within clusters and maximizing the difference between clusters.

The analysis identified five main clusters representing different visitor profiles and different ways of engaging with BunkArt, which are summarized in Table 2:

Table 2. Semantic clusters identified from the analysis of reviews and comments of BunkArt visitors

Cluster	Representative key words	Main related theme	Cluster interpretation	Selected related comments
Cluster 1: History and knowledge seekers	history, communism, regime, Albania, learn, information, understanding	The history of communism and collective memory; Educational Experience and Historical Learning	Visitors who mainly focus on the educational aspect and historical interpretation of the museum. For them, BunkArt represents an opportunity to better understand the modern history of Albania.	“A fascinating place to understand Albania’s communist past and its impact on society.”
Cluster 2: Emotional and reflective visitors	emotional, moving, powerful, reflection, experience, thought-provoking	Emotional experiences and psychological impact	Visitors who react mainly on an emotional level to the stories and atmosphere of the museum. Comments are characterized by	“The experience was emotional, moving and left me thinking long after the visit.”

			personal reflections and strong feelings.	
Cluster 3: Authenticity and architecture enthusiasts	bunker, underground, authentic, tunnels, structure, architecture	Bunker atmosphere and authenticity	Visitors who pay particular attention to the physical structure of the bunkers and the authenticity of the historical environment.	“The bunker itself is an incredible attraction and worth visiting even without the exhibitions.”
Cluster 4: Visitors focused on museums and exhibitions	exhibition, museum, displays, photos, installations, artifacts	Museum exhibitions and artistic interpretation	Visitors who appreciate the quality of the exhibitions, the organization of the museum and the way historical information is presented.	“The exhibitions are well organized and provide excellent historical context.”
Cluster 5: Practical visitors and service evaluators	guide, accessibility, tickets, entrance, signs, service, information	Practical aspects of the visit	Visitors who focus on the organization of the experience, accessibility, audio guides and operational elements of the museum.	“The museum is impressive, although clearer signage would improve the visit.”

Source: Own research

4.2.1 The Relationship Between Thematic Analysis and Semantic Clustering

From a methodological point of view, thematic analysis and semantic clustering are not competing processes but complementary processes. Thematic analysis points out main dimensions of the content discussed by visitors. Semantic clustering points out clusters of comments with similar patterns of interpretation and description of the experience.

The results show that the themes of the thematic analysis are represented in the clusters in different forms. The theme of the history of communism is present both in “Seekers of history and knowledge” and “Emotional and reflective visitors”, but in each case it is interpreted differently. The first cluster is dominated by the cognitive-educational dimension and the second one by the emotional dimension.

This suggests that the same theme could lead to different experiences for different types of visitors. Thematic analysis, thus, answers the question of ‘what do visitors discuss?’, and semantic clustering helps to understand the question of ‘how do they experience and interpret this content?’

4.3. Step 3: Sentiment Analysis

The third stage of the study was focused on sentiment analysis after identifying the main themes and semantic groups of visitors, in order to assess visitors’ emotional attitudes and reactions to their BunkArt experience. Thematic analysis deals with the main issues raised by visitors and semantic clustering provides evidence of different ways of interpreting the experience, while sentiment analysis aims to identify if these experiences are perceived positively, neutrally or negatively.

Sentiment analysis is one of the most well-known techniques used in the field of tourism and UGC, as it allows a systematic measurement of consumers’ perceptions and emotions towards products, services and tourist destinations (Liu, 2012). This method is employed in cultural tourism studies to understand not just the level of visitor satisfaction, but also the factors that lead to the creation of positive or negative experiences (Kirilenko et al., 2018).

In this study, each comment was categorized into one of three main sentiment categories:

- Positive sentiment
- Neutral sentiment
- Negative sentiment

The results showed that the general perception of BunkArt is mostly positive, meaning that the museum is able to give meaningful and valuable experiences to most visitors. But the analysis by topics showed interesting differences in the way different dimensions of experience are assessed. The results of sentiment analysis are summarized in Table 3:

Table 3. Sentiment Analysis by topics identified in BunkArt visitors’ comments

Theme	Dominant sentiment	Main interpretation	Managerial implications
Communist era history and collective memory	Positive	Visitors appreciate the museum as an important source of information and reflection on the modern history of Albania. Historical content is perceived as authentic, informative, and meaningful.	Preserving and enriching the historical narrative should remain a strategic priority, as it represents the main source of perceived value.
Educational experience and history learning	Positive	Visitors appreciate the opportunity to learn about the communist period and the history of Albania through exhibitions and historical documentation.	Further development of educational programs and interpretive materials can further enhance the value of the experience.
Atmosphere and authenticity	Positive	The authentic structure of the bunkers creates a sense of immersion and makes the experience unique compared to traditional museums.	The physical authenticity of the complex must be preserved and interventions that may reduce the original character of the space must be avoided.
Emotional experiences and psychological impact	Positive / Neutral	Visitors report strong emotions such as reflection, shock, empathy, and respect. However, the nature of the historical theme also creates more complex reactions than just tourist delights.	A balance should be maintained between historical information and emotional involvement, avoiding emotional overload of visitors.
Museum exhibitions and artistic interpretation	Positive	Exhibitions and art installations are perceived as well-organized and contribute to the	Investments in interactive exhibitions and interpretive technologies

		understanding of the historical context.	can further enhance the visitor experience.
Practical aspects of visit	Neutral / Negative	Critical comments are mainly related to orientation within the complex, signage, audio guides and other operational elements.	Improving signage, visitor orientation, and support services can reduce the main sources of dissatisfaction.
Overall evaluations and recommendations	Positive	Most visitors consider BunkArt a valuable and recommendable attraction for tourists visiting Tirana.	The current standard of experience quality should be maintained and positive recommendations should be used as a marketing element.

Source: Own research

Sentiment analysis generally confirms that BunkArt is perceived as an attraction with high educational, historical and emotional value. The predominance of positive sentiment within historical, educational and authenticity themes suggests that the most powerful element of the experience is related to the museum’s capacity to foster meaning and reflection in visitors.

The results show that all future improvements should be aimed at the operational aspects of the visit, because this is the main source of neutral or negative assessments, from a practical point of view. This entails not only ensuring the quality of historical interpretation and the authenticity of experience, but also investing in visitor orientation, information communication and quality of support services.

In academic terms, the results indicate that sentiment is not evenly distributed across topics, but rather closely tied to the nature of the experience being discussed. History and education topics tend to have more positive reviews, while operational topics tend to have a more mixed distribution of sentiments. This suggests that the tourist experience is a multi-dimensional phenomenon, in which cognitive, emotional and practical aspects interact in shaping the perceptions of visitors.

5. Discussion and Implications

5.1 Discussion of the findings

The results of this research confirm that the visitor experience at BunkArt is a complex and multidimensional phenomenon, created by the interaction of historical, educational, emotional and operational elements. As in the literature on cultural tourism, the results show that visitors do not perceive the attraction as a simple museum or exhibition space, but as a space where learning, reflection and personal experience of history are interconnected (Richards, 2018).

The thematic analysis revealed that the history of communism, collective memory and educational dimension are at the core of the visitors’ experience. This means that BunkArt succeeds in fulfilling the role of interpreting heritage, translating historical information into an experience that is meaningful for the public (Biran et al., 2011). This finding provides support for the principles of Heritage Interpretation Theory, which states that the goal of interpretation is not just to communicate facts, but to forge intellectual and emotional connections between the visitor and the heritage being presented (Tilden, 1957).

Of particular interest was the finding that the experience was shaped by the authenticity of the physical environment. The bunker is for many visitors an integral part of the attraction and not

only an exhibition container. This means that perceived value is generated not just by historical content but by the chance to experience it in a real space. This finding is consistent with research that identifies authenticity as one of the most important factors in the creation of the cultural heritage experience (Richards, 2018; Waitt, 2000).

Semantic clustering results showed that visitors' interpretation of experience was not homogenous. They tackle the same subjects from different perspectives. Some are more interested in the educational and historical parts, others in the emotional impact and another group is more interested in the practical sides of the trip. This heterogeneity favours theoretical approaches that consider the tourist experience as a process of co-creation, in which the ultimate meaning is constructed through the interaction between the destination offer and the individual characteristics of the visitor (Prahalad & Ramaswamy, 2004).

The sentiment analysis added another layer of interpretation. The prevalence of positive sentiment for history, education and authenticity themes indicates that these are the main sources of visitor satisfaction. On the other hand, neutral and negative comments are mainly related to operational aspects such as orientation, signage, audio guides and ease of movement inside the complex. This result is especially important, as it shows that negative perceptions are not associated with the concept or content of the museum, but with manageable elements of the experience.

5.2 Managerial Implications

The findings of the study have several important implications for the management of BunkArt and cultural heritage attractions in general.

First, the results show that the main assets of the attraction are history and historical interpretation. Therefore, the management needs to continue investing in the development and enrichment of the interpretive content with new historical materials, personal testimonies, multimedia, and innovative ways of storytelling. The continuous improvement of content can keep visitors interested and raise the educational value of the museum.

Second, the importance of authenticity demonstrates the need to preserve the original characteristics of the bunker. Any future intervention in the infrastructure has to be carefully designed so as not to compromise perceptions of authenticity, one of the main competitive advantages of the attraction.

Third, the sentiment results clearly indicate that the operational aspects are the area with the most potential for improvement. In particular, better signage, improved orientation for visitors, better audio guides and the provision of information in more languages can directly contribute to higher visitor satisfaction.

Fourth, the identification of different visitor profiles implies that communication and interpretation strategies cannot be uniform. History-oriented visitors, those seeking emotional experiences and those focusing on authenticity can benefit from different forms of interpretation and communication. Suggesting a more segmented approach to managing the visitor experience.

The study shows that the success of BunkArt is not only due to the historical value of the object, but to the ability to turn this story into an educational, emotional and authentic experience. Maintaining this balance, along with the improvement of operational elements, is one of the challenges and, at the same time, one of the main opportunities for the future development of the attraction.

5.3 Limitations of the study

The study has some limitations that should be considered when interpreting the results, despite its contribution.

First, the analysis was restricted to reviews published on TripAdvisor. Therefore, the results represent the perceptions of visitors who chose to share their experience online and may not fully represent the entire BunkArt visitor population.

Second, the absence of demographic information prevents us from analysing possible differences according to the characteristics of visitors such as age, nationality, educational level or travel motivations.

Third, even if automatic analysis techniques offer great opportunities to deal with a large amount of data, the interpretation of topics and clusters has a subjective component that is related to the process of naming and interpreting the results.

5.4 Suggestions for Further Research

Future studies can extend this research in many directions. First, it would be useful to include data from other online platforms, such as Google Reviews, Facebook or Booking.com to get a broader insight of visitors' perceptions. Second, advanced statistical methods and explanatory models could be used in future research to examine the relationships between topics, visitor profiles and satisfaction levels. Third, a conceptual model of the visitor experience at cultural heritage attractions could be developed and empirically tested, exploring the link between authenticity, heritage interpretation, emotions and visitor satisfaction. Finally, the comparison of the results of BunkArt with those of other cultural heritage sites or dark tourism sites in the Balkans and elsewhere would contribute to identifying similarities and differences in the way visitors experienced and interpreted the historical spaces (Light, 2017).

In conclusion, the study demonstrates that BunkArt is a successful example of the transformation of historical heritage into a meaningful tourist experience, where history, authenticity and emotions interact to create value for visitors. At the same time, the results demonstrate the potential of Artificial Intelligence-based methods to contribute to the understanding and management of the visitor experience at cultural heritage attractions.

References

- Aggarwal, C. C., & Zhai, C. (2012). *Mining Text Data*. Springer.
- Ali, T., Omar, B., & Soulimane, K. (2022). Analyzing tourism reviews using an LDA topic-based sentiment analysis approach. *PLOS ONE*, 17(11), e0277886.
- Biran, A., Poria, Y., & Oren, G. (2011). Sought experiences at (dark) heritage sites. *Annals of Tourism Research*, 38(3), 820–841.
- Blei, D. M. (2012). Probabilistic topic models. *Communications of the ACM*, 55(4), 77–84.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of eTourism research. *Tourism Management*, 29(4), 609–623.
- Chronis, A. (2012). Between place and story: Gettysburg as tourism imaginary. *Annals of Tourism Research*, 39(4), 1797–1816.
- Filieri, R., Alguezaui, S., & McLeay, F. (2015). Why do travelers trust TripAdvisor? Antecedents of trust towards consumer-generated media and its influence on recommendation adoption and word of mouth. *Tourism Management*, 51, 174–185.
- Gretzel, U., & Yoo, K. H. (2008). Use and impact of online travel reviews. In *Information and Communication Technologies in Tourism* (pp. 35–46). Springer.
- Hutto, C. J., & Gilbert, E. (2014). VADER: A parsimonious rule-based model for sentiment analysis of social media text. *Proceedings of the International AAAI Conference on Web and Social Media*, 8(1), 216–225.
- Jain, A. K. (2010). Data clustering: 50 years beyond K-means. *Pattern Recognition Letters*, 31(8), 651–666.
- Kim, J. H., Ritchie, J. R. B., & McCormick, B. (2012). Development of a scale to measure memorable tourism experiences. *Journal of Travel Research*, 51(1), 12–25.
- Kirilenko, A. P., Stepchenkova, S. O., Kim, H., & Li, X. (2018). Automated sentiment analysis in tourism: Comparison of approaches. *Journal of Travel Research*, 57(8), 1012–1025.

- Lee, D. D., & Seung, H. S. (1999). Learning the parts of objects by non-negative matrix factorization. *Nature*, 401, 788–791.
- Light, D. (2017). Progress in dark tourism and thanatourism research: An uneasy relationship with heritage tourism. *Tourism Management*, 61, 275–301.
- Liu, B. (2012). *Sentiment Analysis and Opinion Mining*. Morgan & Claypool Publishers.
- Lu, W., & Stepchenkova, S. (2015). User-generated content as a research mode in tourism and hospitality applications: Topics, methods, and software. *Journal of Hospitality Marketing & Management*, 24(2), 119–154.
- Manning, C. D., Raghavan, P., & Schütze, H. (2008). *Introduction to Information Retrieval*. Cambridge University Press.
- Marine-Roig, E., & Anton Clavé, S. (2015). Tourism analytics with massive user-generated content: A case study of Barcelona. *Journal of Destination Marketing & Management*, 4(3), 162–172.
- McIntosh, A. J., & Prentice, R. C. (1999). Affirming authenticity: Consuming cultural heritage. *Annals of Tourism Research*, 26(3), 589–612.
- Moscardo, G. (1996). Mindful visitors: Heritage and tourism. *Annals of Tourism Research*, 23(2), 376–397.
- O’Callaghan, D., Greene, D., Conway, M., Carthy, J., & Cunningham, P. (2015). An analysis of the coherence of descriptors in topic modeling. *Expert Systems with Applications*, 42(13), 5645–5657.
- Otto, J. E., & Ritchie, J. R. B. (1996). The service experience in tourism. *Tourism Management*, 17(3), 165–174.
- Pedregosa, F., Varoquaux, G., Gramfort, A., Michel, V., Thirion, B., Grisel, O., Blondel, M., Prettenhofer, P., Weiss, R., Dubourg, V., VanderPlas, J., Passos, A., Cournapeau, D., Brucher, M., Perrot, M., & Duchesnay, É. (2011). Scikit-learn: Machine learning in Python. *Journal of Machine Learning Research*, 12, 2825–2830.
- Pine, B. J., & Gilmore, J. H. (1999). *The Experience Economy*. Harvard Business School Press.
- Poria, Y., Butler, R., & Airey, D. (2003). The core of heritage tourism. *Annals of Tourism Research*, 30(1), 238–254.
- Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, 18(3), 5–14.
- Richards, G. (2018). Cultural tourism: A review of recent research and trends. *Journal of Hospitality and Tourism Management*, 36, 12–21.
- Stone, P. R. (2006). A dark tourism spectrum: Towards a typology of death and macabre related tourist sites, attractions and exhibitions. *Tourism: An International Interdisciplinary Journal*, 54(2), 145–160.
- Tilden, F. (1957). *Interpreting Our Heritage*. University of North Carolina Press.
- Waitt, G. (2000). Consuming heritage: Perceived historical authenticity. *Annals of Tourism Research*, 27(4), 835–862.
- Xiang, Z., & Gretzel, U. (2010). Role of social media in online travel information search. *Tourism Management*, 31(2), 179–188.

FROM LEGAL APPROXIMATION TO SUBSTANTIVE CONVERGENCE: COMPETITION POLICY IN ALBANIA’S EUROPEAN INTEGRATION PROCESS

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ABSTRACT

*Competition policy constitutes one of the fundamental pillars of the functioning of the European Union’s internal market and plays a central role in shaping market governance and competitive dynamics. In the context of the European Union enlargement process, the approximation of national legislation with the *acquis communautaire* in the field of competition represents a key element for candidate countries seeking to consolidate market economy institutions and ensure the effective functioning of competition. For Albania, alignment with European competition rules is directly linked to the requirements of Chapter 8 – Competition Policy, which requires not only legislative approximation but also effective implementation through independent institutions and consolidated administrative capacities.*

This analysis focuses on the development of the legal and institutional framework of competition law in Albania in relation to the European Union model. Through an analytical and comparative approach between EU competition rules and Albanian legislation, the study assesses the degree of legal approximation in key areas such as anticompetitive agreements, abuse of dominant position, merger control and the regulation of state aid. Special attention is devoted to the institutional dimension of the enforcement of these rules, including the role of the Competition Authority and the challenges related to strengthening administrative and analytical capacities.

*In conclusion, it is observed that Albania has achieved a considerable level of legal harmonisation with the European *acquis* in the field of competition. However, the current stage of the integration process requires a stronger focus on institutional consolidation and the strengthening of enforcement mechanisms. The transition from formal approximation to substantive convergence with European Union standards remains essential for strengthening market governance, ensuring fair competition and advancing Albania’s path toward European Union membership.*

Keywords: Competition Policy; European Integration; Legal Approximation; Substantive Convergence; Albania.

I. INTRODUCTION

The Structural Dimension of Competition Law in the European Integration Process

European integration has historically been founded upon the objective of establishing an internal market based on free competition and on the elimination of barriers capable of distorting its functioning. Within this broader framework, competition law constitutes one of the fundamental pillars of the legal and economic architecture of the European Union and one of the key mechanisms for ensuring and preserving the functioning of the internal market. It is not limited to regulating relations between undertakings or to the formal prohibition of anti-competitive conduct, but serves as a structural guarantee for the functioning of an open economy in which equality of competitive conditions and the integrity of the European economic area are systematically protected. In this sense, competition policy does not merely operate as a legal instrument for controlling anti-competitive practices, but functions as a structural mechanism for safeguarding competitive market conditions, ensuring the effective functioning of the market and preserving the competitive dynamics that support economic development and market integration within the European area.⁹⁶

Through the prohibition of restrictive agreements, the control of abuse of dominant position, and the regulation of State aid, the European competition law framework seeks to prevent market distortion and fragmentation along national borders. In this respect, competition is not merely presented as an economic category, but as a fundamental principle of the European Union legal order, closely linked to the objective of achieving the internal market. The case-law of the Court of Justice has consistently emphasised that the preservation of effective competition constitutes a necessary condition for attaining the objectives of the Treaties and for ensuring the equal functioning of market mechanisms.⁹⁷

Unlike the American model, developed essentially through case-law on doctrines such as *rule of reason* and *per se illegality*, the European system is institutionalised at the level of Treaties and regulations, integrating competition law into the very normative structure of the Union and making it an organic component of the *acquis communautaire*.⁹⁸

In the context of enlargement, this field acquires particular importance, since Chapter 8 – Competition Policy – represents one of the most technical and sensitive chapters of accession negotiations. The European Union requires candidate countries not only to achieve formal approximation of legislation with Articles 101 and 102 of the Treaty on the Functioning of the European Union, but also to ensure their effective enforcement through independent authorities, consolidated administrative capacities and a functional judicial system. Legislative approximation, in this respect, constitutes only the initial phase of a deeper process of institutional and functional transformation.⁹⁹

For Albania, the reforms undertaken in the field of competition have produced a considerable degree of textual convergence with European standards, reflecting the structure and fundamental principles of the EU system. Nevertheless, assessing the country's actual positioning within the integration process cannot be confined to the existence of aligned provisions, but requires an analysis of the degree of their effective enforcement, institutional capacity for investigation and decision-making, as well as the level of internalisation of competition culture within economic practice. In this dimension, the distinction between formal

⁹⁶ R. Whish & D. Bailey, *Competition Law*, 11th ed., Oxford University Press, Oxford, 2024, pp. 3–8; see also Article 3(3) TEU

⁹⁷ Case C-309/99, *Wouters and Others v Algemene Raad van de Nederlandse Orde van Advocaten* [2002] ECR I-1577, para. 97; Case C-8/08, *T-Mobile Netherlands* [2009].

⁹⁸ Articles 101–102 TFEU; Council Regulation (EC) No 1/2003.

⁹⁹ European Commission, *Communication on EU Enlargement Policy*, COM(2020) 57 final; European Commission, *Albania 2023 Report*, SWD(2023) final.

harmonisation and substantial convergence emerges as the central element for measuring the institutional maturity of the Albanian legal order in relation to European Union requirements.¹⁰⁰ Within this context, the present study aims to analyse the development of the legal and institutional framework of competition law in Albania in relation to the European model, by assessing the degree of legislative approximation with the *acquis communautaire* and the challenges related to its effective enforcement. The principal contribution of this article lies in analysing the relationship between legislative approximation and substantive convergence with European Union standards, placing this process within the broader context of European integration and the functioning of a competitive market.

II. THE NORMATIVE FRAMEWORK OF COMPETITION LAW IN THE EUROPEAN UNION AS A REFERENCE MODEL

The normative framework of competition law in the European Union constitutes a consolidated and integrated system, built upon Treaty provisions and secondary legal instruments having direct effect within the legal order of the Member States. Its normative foundation lies in Articles 101 and 102 of the Treaty on the Functioning of the European Union, which constitute the core of the European antitrust regime.¹⁰¹

Article 101 TFEU prohibits agreements between undertakings, decisions by associations of undertakings and concerted practices which have as their object or effect the restriction, distortion or prevention of competition within the internal market.¹⁰² Article 102 TFEU, on the other hand, prohibits the abuse of a dominant position insofar as such abuse may affect trade between Member States.¹⁰³ Taken together, these provisions establish the foundations for preserving effective competition and protecting market structure.

Their enforcement is governed by Council Regulation (EC) No 1/2003, which institutionalised a decentralised model of application by conferring upon national competition authorities and courts the competence to apply Articles 101 and 102 TFEU directly.¹⁰⁴ In the field of concentrations, Council Regulation (EC) No 139/2004 establishes the “Significant Impediment to Effective Competition” (SIEC) test as the assessment standard¹⁰⁵, whereas the State aid regime, based on Articles 107-109 TFEU, seeks to prevent distortion of competition through selective State intervention.¹⁰⁶

This system operates through a decentralised model of institutional cooperation known as the European Competition Network (ECN), within which the European Commission and national authorities coordinate their activities.¹⁰⁷ The coherence of this mechanism is ensured not only through formal rules, but also through consolidated case-law which guides the interpretation and application of the fundamental provisions.

In the case-law of the Court of Justice of the European Union, it has been emphasised that the analysis of anti-competitive practices cannot rely solely on formal classification, but must assess their actual or potential impact on market structure. In *United Brands v Commission of the European Communities*, the Court established the criteria for identifying a dominant position by linking it to the ability to act independently of competitive pressure.¹⁰⁸ Subsequently, in *Intel v Commission*, the need for an in-depth economic analysis of the

¹⁰⁰ A. Gjeta, *EU Law, Enlargement Process and the Burden of Legal Harmonisation in Albania*, Elbasan, 2024, p. 44

¹⁰¹ Articles 101–102 TFEU.

¹⁰² Article 101(1) TFEU.

¹⁰³ Article 102 TFEU.

¹⁰⁴ Council Regulation (EC) No 1/2003.

¹⁰⁵ Council Regulation (EC) No 139/2004.

¹⁰⁶ Articles 107–109 TFEU.

¹⁰⁷ Notice on cooperation within the Network of Competition Authorities (2004/C 101/03).

¹⁰⁸ Case 27/76, *United Brands v Commission* [1978] ECR 207.

exclusionary effect of commercial practices was emphasised.¹⁰⁹ This shift towards an effects-based approach strengthens the functional character of the European model and renders competition assessment a combined legal and economic exercise.

In this sense, the European normative framework does not merely represent a prohibitive regime, but rather a reference model built upon institutional integration, economic analysis and the direct application of European Union law at the national level.

III. THE LEGAL FRAMEWORK OF COMPETITION IN ALBANIA

The legal framework of competition law in Albania has been developed within a normative structure aimed at approximation with the European model and with the requirements deriving from the *acquis communautaire*. Its fundamental basis consists of Law No. 9121, dated 28 July 2003, “On the Protection of Competition”, as amended, which contains provisions concerning prohibited agreements, abuse of dominant position and merger control, within a structure reflecting its alignment with Articles 101 and 102 of the Treaty on the Functioning of the European Union.¹¹⁰ This law forms the backbone of the Albanian competition system and gives domestic effect to the fundamental principles of the European antitrust regime.

At the same time, Law No. 9901, dated 14 April 2008, “On Entrepreneurs and Commercial Companies”, indirectly affects the functioning of competition through the regulation of forms of business organisation and market structures.¹¹¹ The normative dimension is further complemented by legislation on State aid, which seeks to align with Articles 107-109 TFEU, as well as by secondary acts adopted by the Competition Authority regulating investigative procedures, merger control and assessment methodologies.¹¹²

From a structural perspective, the Albanian system has been developed in analogy with the European model, reflecting the classical division between the prohibition of restrictive agreements, the prohibition of abuse of dominant position and the control of State intervention in the market. Nevertheless, a systematic analysis of practice demonstrates that textual convergence with the *acquis* is not always accompanied by a proportionate deepening of economic and functional analysis.

First, normative approximation appears predominantly formal, in the sense that legal provisions reproduce the structure and terminology of European Union law, while their interpretation and application do not always reflect the standards developed in the case-law of the Court of Justice.¹¹³

Second, the decision-making practice of the authority remains relatively limited in relation to market complexity, both in terms of the number of cases handled and the depth of the analysis undertaken. Third, economic analysis frequently relies upon formal legal reasoning and the identification of textual elements of infringement, without a full assessment of market structure, barriers to entry, actual competitive strength or dynamic effects on consumers.

From this perspective, the distinction between formal harmonisation and substantial convergence becomes evident: while the legal framework is, to a considerable extent, harmonised with the European model, the principal challenge lies in the internalisation of the European Union’s analytical methodology and in consolidating a decision-making culture grounded in in-depth legal and economic analysis.

¹⁰⁹ Case C-413/14 P, *Intel v Commission* [2017].

¹¹⁰ Law No. 9121, dated 28 July 2003, *On the Protection of Competition*, as amended; compare Articles 101–102 TFEU.

¹¹¹ Law No. 9901, dated 14 April 2008, *On Entrepreneurs and Commercial Companies*.

¹¹² *Secondary acts and guidelines of the Albanian Competition Authority on merger control and investigative procedures*.

¹¹³ Compare Case 27/76, *United Brands and Case C-413/14 P, Intel*.

IV. THE INSTITUTIONAL DIMENSION AND ENFORCEMENT CHALLENGES: THE ROLE OF THE COMPETITION AUTHORITY

The effectiveness of any competition law system is assessed not solely by the content of its normative provisions, but by institutional functioning and the actual capacity to enforce them. In Albania, the enforcement of competition law has been entrusted to the Competition Authority, an independent institution vested with investigative and decision-making powers in the field of anti-competitive practices, merger control and market monitoring.¹¹⁴

From a formal perspective, the Authority enjoys functional autonomy and broad investigative powers, including the right to conduct inspections, request information and impose administrative measures. Nevertheless, European Union standards require not merely the formal existence of such powers, but the guarantee of genuine independence, technical professionalism and the capacity to undertake complex economic analysis.¹¹⁵ In the case-law of the Court of Justice of the European Union, it has been emphasised that judicial review of decisions adopted by competition authorities must be effective and comprehensive, including verification of the accuracy of economic analysis.¹¹⁶ This standard represents an important benchmark for the institutional maturity of any national system.

In Albanian practice, although progress in establishing a clearer procedural framework is evident, several challenges persist. First, the number of complex cases handled remains relatively limited, which affects the consolidation of administrative case-law and the development of a consistent interpretative practice. Second, economic analysis in decision-making often does not reach the level of sophistication characterising the European effects-based approach, remaining primarily oriented towards the formal elements of infringement. Third, challenges also arise with regard to judicial review of the Authority's decision, where the interaction between legal and economic analysis requires further institutional specialisation.

A specific institutional dimension concerns State aid and coordination between the authorities responsible for its control. European standards require transparency, regular reporting and the avoidance of selective advantages capable of distorting competition.¹¹⁷ In this respect, institutional consolidation does not merely constitute a technical requirement of the negotiation process, but an essential element for guaranteeing equality of competitive conditions within the domestic market.

Against this background, the central challenge no longer lies in the existence of a harmonised legal framework, but in strengthening analytical capacities, reinforcing functional independence and developing a decision-making culture grounded in the standards established by European Union case-law. Only through such institutional consolidation can substantial convergence with the European model of competition genuinely be achieved.

V. CHAPTER 8 – COMPETITION POLICY IN THE SCREENING PROCESS AND ALBANIA'S POSITIONING

Competition policy, included within Chapter 8 of the accession negotiations, is traditionally regarded as one of the most technical and demanding chapters in the European Union enlargement process. This derives from the fact that this field is not confined to legislative harmonisation, but requires the effective functioning of institutions, consolidated administrative capacities and the uniform application of European Union law standards.

¹¹⁴ Law No. 9121/2003, chapter on organisation and competences of the Competition Authority.

¹¹⁵ European Commission, *Albania 2023 Report*, SWD(2023) final.

¹¹⁶ Case C-386/10 P, *Chalkor v Commission* [2011]; Case C-272/09 P, *KME Germany v Commission* [2011].

¹¹⁷ Articles 107–109 TFEU; Case C-280/00, *Altmark Trans* [2003].

The screening process for this chapter aims to verify not only the formal compatibility of national legislation with the *acquis*, but also institutional readiness to implement it effectively. In the progress reports of the European Commission, competition policy in Albania has been assessed as an area where a considerable level of legal preparedness exists, while further efforts remain necessary in order to strengthen practical enforcement and analytical capacities.¹¹⁸

More specifically, the State aid dimension constitutes one of the most sensitive aspects of the negotiation process. According to the standards established under Articles 107-109 of the Treaty on the Functioning of the European Union, any public intervention that selectively favours certain undertakings and distorts, or threatens to distort, competition is, in principle, incompatible with the internal market.¹¹⁹ The case-law of the Court of Justice of the European Union in *Altmark Trans* clarified the criteria under which public compensation for services of general economic interest does not constitute State aid.¹²⁰ These criteria — including the existence of a clearly defined public service obligation and the proportionality of compensation — now constitute an important benchmark for any national system seeking substantial convergence with the *acquis*.

For Albania, the challenge lies not only in the existence of a legal framework governing State aid control, but in ensuring transparency, comprehensive reporting and the avoidance of selective interventions capable of distorting market structure. This requires interinstitutional coordination, specialised technical capacities and an administrative culture oriented towards economic impact assessment.

More broadly, the screening process under Chapter 8 serves as a testing mechanism for distinguishing between formal harmonisation and substantial convergence. While Albanian legislation reflects, to a considerable extent, the structure of the European model, the final assessment of accession preparedness will depend on Albania's ability to demonstrate consistent enforcement, decision-making grounded in economic analysis and the effective functioning of supervisory mechanisms.

In this regard, competition policy evolves from a technical negotiating requirement into an indicator of institutional maturity and of the consolidation of the rule of law in the economic sphere. Real convergence with the European model is measured not solely by the text of legislation, but by the capacity to guarantee effective competition in practice, in accordance with the standards established in European Union case-law.

VI. PRACTICAL ENFORCEMENT CHALLENGES

Despite the considerable degree of normative harmonisation, the practical enforcement of competition law in Albania reveals a number of structural weaknesses that affect the achievement of substantial convergence with the European model. These weaknesses do not relate to the absence of legal provisions, but rather to the methodology of application and to the internalisation of the analytical standards developed in European Union case-law.

One of the most significant practical issues concerns the definition of the relevant market. In competition law, market definition constitutes the fundamental step of analysis, as it conditions the assessment of dominant position and of the impact of practices on effective competition. In European Union practice, the definition of the relevant market is based on sophisticated economic analysis, including the demand and supply substitutability test (SSNIP test).¹²¹ In certain cases addressed in Albanian practice, relevant market analysis remains focused on

¹¹⁸ *European Commission, Albania 2023 Report, Chapter 8.*

¹¹⁹ *Article 107(1) TFEU.*

¹²⁰ *Case C-280/00, Altmark Trans GmbH and Regierungspräsidium Magdeburg v Nahverkehrsgesellschaft Altmark GmbH [2003] ECR I-7747.*

¹²¹ *Commission Notice on the definition of relevant market for the purposes of Community competition law (97/C 372/03).*

formal sectoral descriptions, without a full assessment of actual competitive pressures, barriers to entry or demand elasticity. This limits the depth of assessment of dominant position and exclusionary effect.

Another important issue concerns the effectiveness and proportionality of administrative sanctions. In the European model, fines do not perform merely a punitive function, but also a preventive and disciplinary role within the market.¹²² The case-law of the Court of Justice of the European Union has emphasised that sanctions must be effective, proportionate and deterrent in order to ensure compliance with competition rules.¹²³ In the Albanian context, although the legal framework provides for significant fines, the question remains open as to whether their level and practical application genuinely achieve the intended deterrent effect, particularly in sectors characterised by high market concentration.

A notably sensitive dimension concerns public undertakings and indirect State intervention in the market. Even in the absence of formal State aid, structural advantages deriving from public ownership, State guarantees or preferential treatment may create a risk of distortion of competition. European case-law has emphasised that any selective economic advantage favouring an undertaking and affecting competition falls within the scope of State aid control. In this respect, transparency and monitoring of public undertakings constitute essential elements for preserving equality of competitive conditions.¹²⁴

Finally, a more structural issue concerns competition culture within the market. The effectiveness of competition law does not depend solely on intervention by the competent authority, but also on the perception of economic operators regarding its binding nature and practical relevance. In the absence of a consolidated compliance culture, competition rules risk being perceived as sporadic administrative intervention rather than as an integral component of market functioning. This requires not only stronger enforcement, but also awareness-raising, transparency and legal economic awareness among market participants.

Overall, practical enforcement challenges demonstrate that the principal difficulty of the Albanian system no longer lies in textual compliance with the European *acquis*, but in consolidating analytical methodology, strengthening the deterrent effect of sanctions and building a competition culture genuinely internalised by undertakings.

VII. FROM FORMAL APPROXIMATION TO SUBSTANTIAL CONVERGENCE: AN ANALYSIS OF THE INTEGRATION PROCESS IN THE FIELD OF COMPETITION

At the current stage of the European integration process, Albania is confronted with a transition from legislative approximation towards substantial convergence with European Union standards in the field of competition. Against this background, the adoption of legal provisions aligned with the *acquis communautaire* cannot in itself ensure effective convergence, as the principal challenge no longer concerns legislative approximation as such, but rather the effective implementation of those provisions in practice through functional institutions and consolidated administrative capacities.¹²⁵

The evolution of the Albanian competition system demonstrates that the normative framework has achieved a considerable degree of harmonisation with the European model, particularly with regard to anti-competitive agreements, abuse of dominant position, and merger control. However, real convergence with European Union standards requires further development of the institutional dimension and of decision-making practice, including a deeper use of economic analysis in the assessment of market practices.

¹²² *Guidelines on the method of setting fines imposed pursuant to Article 23(2)(a) of Regulation No 1/2003 (2006/C 210/02).*

¹²³ *Case C-386/10 P, Chalkor v Commission [2011].*

¹²⁴ *Article 107(1) TFEU; Case C-280/00, Altmark Trans [2003].*

¹²⁵ *R. Whish & D. Bailey, Competition Law, 11th ed., Oxford University Press, Oxford, 2024, pp. 17–25.*

Accordingly, the European integration process in the field of competition should not be understood merely as a technical process of transposing legal norms, but as a broader institutional transformation aimed at guaranteeing the effective functioning of the market and equality of competitive conditions among undertakings. In the literature on European integration, this process is often described through the concept of *Europeanisation of law*, which implies the continuous influence of European Union norms, practices and institutional standards on the transformation of national legal systems.¹²⁶ From this perspective, legislative approximation constitutes only one dimension of this process, whereas substantive convergence is achieved through institutional adaptation and the assimilation of the analytical methodology characterising the European competition system.

Another important dimension of this process concerns the consolidation of competition culture within the market. Beyond intervention by regulatory authorities, effective compliance with competition rules also requires awareness among market participants and the internalisation of competitive principles within business practices. In this sense, competition policy contributes not only to preventing market distortions but also to creating a stable and predictable economic environment.¹²⁷

Ultimately, it may be observed that the Albanian competition law system has attained a considerable degree of normative approximation with the European *acquis*. Nevertheless, the principal challenge remains the transition from formal harmonisation to substantial convergence, which requires strengthening institutional capacities, developing economic analysis in decision-making and consolidating effective enforcement mechanisms. Only through such institutional and functional transformation can Albania's sustainable integration into the European competition order be effectively secured.

VIII. CONCLUSIONS

Competition law constitutes one of the structural pillars of European integration, as it is essential to the functioning of the internal market and to ensuring equality of competitive conditions among undertakings. The European model, built upon Articles 101 and 102 of the Treaty on the Functioning of the European Union, as well as on the regulation of concentrations and State aid, is characterised by an integrated normative and institutional architecture, supported by effects-based economic analysis and by the consolidated case-law of the Court of Justice of the European Union.

In relation to this reference model, the Albanian competition law system has achieved a considerable degree of normative approximation. The structure of Law No. 9121, together with the corresponding legislation clearly reflects the principles and conceptual divisions of the European *acquis*. Likewise, the establishment and functioning of the Competition Authority as a specialised body represents an essential element of the institutional architecture.

Yet, analysis of the functional and practical dimension demonstrates that convergence with European Union standards remains in a process of consolidation. The principal challenge no longer resides in textual legislative harmonisation, but in the internalisation of economic analysis methodology, in deepening decision-making practice and in guaranteeing genuine institutional independence. Issues such as relevant market definition, the proportionality and deterrent effect of sanctions, effective State aid control and the treatment of public undertakings demonstrate that practical enforcement still requires further development.

¹²⁶ C. Radaelli, “The Europeanization of Public Policy”, in K. Featherstone & C. Radaelli (eds.), *The Politics of Europeanization*, Oxford University Press, Oxford, 2003, pp. 27–56; see also T. Börzel & T. Risse, “Europeanization: The Domestic Impact of EU Politics”, in the same volume.

¹²⁷ D. Geradin, A. Layne-Farrar & N. Petit, *EU Competition Law and Economics*, Oxford University Press, Oxford, 2012, p. 1–8.

Within this context, the screening process under Chapter 8 serves as an important verification mechanism for distinguishing between formal harmonisation and substantial convergence. Integration into the European competition system presupposes not only the adoption of legal norms, but also the assimilation of the functional logic underlying effects-based analysis of competition and market structure.

In conclusion, the Albanian competition system remains in a transitional phase towards institutional maturity. The normative framework has achieved a substantial degree of harmonisation, yet the consolidation of substantial convergence will depend on the further development of analytical capacities, the evolution of national case-law and the strengthening of competition culture within the market. Only through such functional transformation may integration into the European competition model be regarded as fully accomplished.

REFERENCES

- A. Gjeta, EU Law, Enlargement Process and the Burden of Legal Harmonisation in Albania, Elbasan, 2024
Article 3(3) TEU
Articles 101–102 TFEU.
Articles 101–102 TFEU;
Articles 107–109 TFEU.
- C. Radaelli, “The Europeanization of Public Policy”, in K. Featherstone & C. Radaelli (eds.), *The Politics of Europeanization*, Oxford University Press, Oxford, 2003, fq. 27–56;
Case 27/76, *United Brands v Commission* [1978] ECR 207.
Case C-280/00, *Altmark Trans GmbH and Regierungspräsidium Magdeburg v Nahverkehrsgesellschaft Altmark GmbH* [2003] ECR I-7747.
Case C-309/99, *Wouters and Others v Algemene Raad van de Nederlandse Orde van Advocaten* [2002] ECR I-1577, para. 97;
Case C-386/10 P, *Chalkor v Commission* [2011].
Case C-386/10 P, *Chalkor v Commission* [2011]; Case C-272/09 P, *KME Germany v Commission* [2011].
Case C-413/14 P, *Intel v Commission* [2017].
Case C-8/08, *T-Mobile Netherlands* [2009].
Commission Notice on the definition of relevant market for the purposes of Community competition law (97/C 372/03).
Case 27/76, *United Brands* and Case C-413/14 P, *Intel*.
Council Regulation (EC) No 1/2003.
Council Regulation (EC) No 139/2004.
European Commission, *Albania 2023 Report*, Chapter 8.
European Commission, *Albania 2023 Report*, SWD(2023) final.
European Commission, *Communication on EU Enlargement Policy*, COM(2020) 57 final; European Commission, *Albania 2023 Report*, SWD(2023) final.
Guidelines on the method of setting fines imposed pursuant to Article 23(2)(a) of Regulation No 1/2003 (2006/C 210/02).
Law No. 9121, dated 28 July 2003, *On the Protection of Competition*, as amended;
Law No. 9121/2003, chapter on organisation and competences of the Competition Authority.
Law No. 9901, dated 14 April 2008, *On Entrepreneurs and Commercial Companies*.
Notice on cooperation within the Network of Competition Authorities (2004/C 101/03).
R. Whish & D. Bailey, *Competition Law*, 11th ed., Oxford University Press, Oxford, 2024.
T. Börzel & T. Risse, “Europeanization: The Domestic Impact of EU Politics” in K. Featherstone & C. Radaelli (eds.), *The Politics of Europeanization*, Oxford University Press, Oxford, 2003.

BANKING WITHOUT BANKS: THE ILLUSION OF AUTONOMY AND THE NECESSITY OF AUTHENTIC DELEGATION IN THE DIGITAL ERA

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Abstract

This article examines digital transformation in the Albanian banking sector by focusing on the shift from branch-based service delivery to digital self-service. Using the lens of Authentic Delegation, it explores whether this transition represents a genuine transfer of authority to customers or, rather, a form of Ceremonial Delegation in which autonomy is formally assigned but insufficiently supported in practice. Methodologically, the study employs a quantitative survey design, while interpreting the findings through the ELQ-12 framework, repurposed as an analytical lens for customer-side delegation. Delegation quality is assessed through four dimensions; understanding, participation, trust in competence, and autonomy, while four analytical diagnostics (T1-T4) are employed to identify structural breaks in the delegation chain. The findings point to a notable contradiction: although customers report high levels of perceived system security, this confidence does not appear to translate into stronger performance outcomes. More importantly, the evidence suggests that banks have largely delegated operational autonomy in a formal sense, while falling short in fostering understanding and trust in competence. As a result, digital self-service may be seen less as an example of fully authentic delegation and more as a case of unsupported autonomy. This pattern raises questions about the assumption that technical security alone can drive meaningful user engagement. The study concludes that the success of digital self-service depends not simply on transferring control to customers, but on the extent to which that transfer is accompanied by adequate support, capability-building, and motivational reinforcement.

Keywords: Digital Transformation; Digital Self-Service; Authentic Delegation; Ceremonial Delegation; Customer Autonomy; Albanian Banking Sector.

Introduction

Digital transformation in banking is often described as a success story of greater efficiency, faster service, and more convenience for customers. However, the shift from branch-based banking to mobile and online self-service also moves part of the banking work from employees to customers. Tasks that were once explained, checked, or completed with the help of bank staff are now increasingly carried out by users themselves. In many cases, this happens through digital platforms that assume customers already have the knowledge, confidence, and ability to avoid or manage errors. This article examines that shift through the lens of authentic delegation. The main issue is not simply whether Albanian banks have become more digital, but whether the transfer of operational control to customers has also included the understanding, support, and confidence needed for customers to use these services effectively. In other words, the article asks whether customers are truly empowered or whether they are simply expected to handle banking tasks on their own with only limited guidance.

The Albanian context makes this question especially important. The Bank of Albania's National Retail Payments Strategy (Bank of Albania, 2018) presented the modernization of retail payments as part of building a safer, more efficient and more inclusive financial system. At the same time, it recognized ongoing challenges such as the strong use of cash and the need to increase account ownership and electronic payments. This policy direction has continued through wider efforts to modernize payment systems and strengthen financial education (Bank of Albania, 2025).

This article argues that digital self-service should not be seen only as a matter of technological adoption. It should also be understood as a process of delegation. When banks give customers autonomy without also providing enough explanation, support and trust-building, what looks like empowerment, may actually become ceremonial delegation. In such cases, customers are formally given control, but in practice they are not sufficiently prepared or supported to use it well.

The empirical part of the study is based on a survey of banking users and potential users in Albania. The results are interpreted through four dimensions of delegation: understanding, participation, trust in competence, and autonomy as well as four analytical diagnostics (T1-T4). In this way, the article evaluates whether digital banking in Albania reflects genuine customer empowerment or a weaker form of delegation in which responsibility is transferred more fully than capability.

Literature review and analytical framework

Digital transformation is not only about introducing new technologies. It also changes organizational processes, redistributes responsibilities, and reshapes how value is created (Vial, 2019). In banking, digital channels are often associated with faster service, lower transaction costs and greater accessibility. However, research shows that adoption depends on more than technological availability alone. Users' decisions to adopt or avoid digital banking are influenced by perceived usefulness, ease of use, trust, risk, compatibility and resistance to change (Shaikh & Karjaluoto, 2015; Laukkanen, 2016). For this reason, digital banking should be understood not simply as a technical innovation, but also as a transformation in the role expected from the customer.

This perspective is especially relevant in Albania. The modernization of retail payments has been framed by the Bank of Albania as part of a broader effort to build a safer, more efficient, and more inclusive financial system (Bank of Albania, 2018). This agenda has continued in recent years through wider reforms in payment infrastructure and financial inclusion (Bank of Albania, 2025). Yet the move toward digital banking in Albania, as in many transitional settings, must be understood in relation to persistent cash habits, uneven digital capabilities,

and differing levels of trust and readiness among users. The question, therefore, is not only whether digital channels exist, but whether customers are equipped to use them confidently and effectively.

To analyse this issue, the study draws on the empowering leadership tradition. Arnold, Arad, Rhoades, and Drasgow (2000) developed the Empowering Leadership Questionnaire (ELQ) to capture leader behaviors that enhance autonomy through informing, participation, competence support, and the granting of discretion. Although the ELQ was originally designed for organizational settings, its underlying logic is useful beyond the workplace. Ahearne, Mathieu, and Rapp (2005) show that empowering leadership behaviors can also shape customer satisfaction and performance through the service chain. This makes it plausible to extend the same analytical logic to customer-facing service environments.

Such an extension is particularly relevant in digital banking. As banking services move from the branch to mobile and online platforms, customers are expected to perform tasks that were previously explained, checked, or completed with staff support. In this sense, digitalization does not merely offer convenience; it also delegates operational responsibility. Customers are expected to manage transactions independently, interpret procedures, handle potential errors, and protect themselves against risks. This creates a structural situation that resembles delegated responsibility in organizational life. The key issue, therefore, is whether customers receive not only formal authority to act, but also the conditions needed to use that authority well.

On this basis, the article distinguishes between authentic delegation and ceremonial delegation. Authentic delegation exists when customers are not only allowed to act, but are also enabled to understand the service, participate meaningfully in its use environment, trust their own competence, and operate with supported autonomy. Ceremonial delegation, by contrast, occurs when the formal right to act is transferred, but the cognitive, relational, and practical supports required for effective action remain weak. In digital banking, ceremonial delegation may appear when applications are technically available and formally secure, yet remain difficult to navigate, weakly explained, poorly supported, or insufficiently integrated into everyday transaction routines.

The ELQ is therefore not used here as a psychometric scale administered directly to customers. Rather, it is repurposed as an analytical lens for examining whether the delegation chain in the bank-customer relationship is intact or broken. This is an interpretive theoretical move and its future validation through a dedicated customer-side instrument remains an important task for further research.

Based on this logic, the paper uses four delegation dimensions. Understanding refers to user knowledge and the perceived role of financial education. Participation refers to the breadth of actual digital uses and the extent to which the wider ecosystem supports continued digital engagement. Trust in competence refers not only to trust in the platform, but also to the user's confidence in their own ability to use it safely and effectively. Autonomy refers to actual control over transactions, the frequency of self-service use and the willingness to expand digital behaviour in the future. In this way, the framework moves beyond a narrow adoption perspective and examines whether digital banking in Albania reflects a genuine transfer of capability or only a formal transfer of responsibility.

Methodology

The empirical analysis is based on a self-administered online questionnaire in Albanian, collected during the first quarter of the current year. The final dataset includes 151 valid responses. The questionnaire contains 21 substantive questions covering demographic characteristics, access to banking services, service use, frequency of digital banking, trust, barriers, experienced problems, future expectations, knowledge, and training needs.

Methodologically, the study follows a quantitative survey design combined with an interpretive analytical reading of the results. However, it is not a fully mixed-methods study in the sense described by Creswell and Plano Clark (2017), because it does not include a separate qualitative dataset such as interviews, focus groups, or document analysis. The quantitative part presents the survey findings through descriptive statistics and an exploratory binary logistic model of intensive digital use, defined as weekly or daily use compared with less frequent use. The interpretive part then examines these findings through the delegation framework outlined earlier. In this approach, the ELQ-12 logic is not used as a customer psychometric scale, but as an organizing framework to assess whether the delegation chain remains intact or shows signs of breakdown.

The sample is informative, but it is not nationally representative. It is more heavily composed of urban respondents and individuals with higher levels of education. Therefore, the findings should be understood as analytical evidence of broader patterns rather than as population-level estimates for Albania. This limitation is important because a sample with greater digital exposure would normally be expected to demonstrate stronger digital autonomy. If signs of unsupported autonomy are still visible in such a sample, the problem may be even more significant among less advantaged groups.

Participation in the survey was voluntary and anonymous. The introductory page of the online questionnaire informed respondents about the purpose of the study, the academic use of the data, the absence of any commercial purpose, and their right to stop completing the questionnaire at any time. No personal identifiers, such as names, ID numbers, bank accounts, IBANs, or contact details, were collected and all responses were stored only in aggregate form. Because the study did not collect sensitive personal data and the questionnaire was fully anonymous, it falls within the category of low-risk social research. It was conducted in accordance with the research integrity standards of the Faculty of Business and Law, University of Elbasan.

Table 1. Sample profile

Dimension	Category	n	%
Age	Under 30	81	53.6
	30–39	29	19.2
	40–49	25	16.6
	50–59	10	6.6
	60+	5	3.3
Gender	Female	95	62.9
	Male	54	35.8
	Prefer not to answer	2	1.3
Residence	Urban	127	84.1
	Rural	24	15.9
Education	Postgraduate	68	45.0
	Higher education	52	34.4
	Secondary/professional/other	31	20.6
Employment	Employed	84	55.6

	Student	47	31.1
	Self-employed/business	13	8.6
	Other	7	4.6

Source: Authors

Table 1. indicates that the sample is predominantly younger, urban, and relatively well educated. This is important for interpretation, since the study captures not the most excluded groups, but users who would generally be expected to adapt more easily to digital banking.

Results and Discussion

Adoption patterns and intensity of use

Adoption is broad at the level of formal access. A very high share of respondents report having an active bank account (92.7%), and 79.5% state that their digital banking use increased after COVID-19. Future expectations are also favourable: 74.2% view the future of digital banking in Albania positively or very positively and 76.8% say they are willing to use more digital financial services in the future. However, intensive use is more restrained than these headline indicators suggest. Only 46.4% use digital banking weekly or daily, while 23.2% use it monthly and another 23.2% use it rarely. Digital activity is also concentrated in relatively standard functions. The most common uses are online purchases (74.2%), bill payments (51.7%), account/card monitoring (49.7%) and bank transfers (43.0%), whereas only 12.6% report using digital channels for tax payments. This indicates that self-service is real, but functionally narrow.

Table 2. Core indicators of digital banking access, use and confidence.

Indicator	Result	n	%
Active bank account	Yes	140	92.7
Digital use increased after COVID-19	Much/Somewhat	120	79.5
Use digital banking weekly or daily	Yes	70	46.4
Never use digital banking	Yes	11	7.3
Trust level in digital banking	High (4–5 on 5-point scale)	94	62.3
Encountered concrete problems	No	95	62.9
Future of digital banking in Albania	Positive/Very positive	112	74.2
Willing to use more digital services in future	Yes	116	76.8
Knowledge of digital financial services	Good/Very good	113	74.8
Financial education affects use	Yes	121	80.1
Interested in training/information	Yes	112	74.2

Source: Authors

Percentages are computed over all respondents; multi-category survey answers are grouped where noted.

A further nuance emerges from branch accessibility. Most respondents (76.2%) can reach the nearest branch in less than 30 minutes. Digital banking, therefore, does not appear to be used mainly because physical banking is absent. Rather, branch access and digital access coexist. This supports the idea that digitalization is not simply a geographic substitute for branches, but a reorganization of how banking work is performed.

Problems, barriers and desired improvements

The problem profile is not uniform. Although 62.9% of respondents stated that they had not experienced significant or blocking problems with digital banking, many still reported specific frictions when asked about issues encountered in practice. This difference is important: the first item captures the overall perceived seriousness of problems, while the second identifies concrete difficulties in everyday use. Taken together, the results suggest that most users do not view digital banking as seriously problematic, yet many still face recurring operational frictions. The most frequently reported issue is technical errors or service interruptions (35.8%), followed by concerns about personal data security (19.2%), limited functionalities (16.6%), perceived fraud risk (14.6%), difficulty of use (14.6%), and insufficient bank support (9.9%).

The barrier profile points to a combination of cultural, cognitive, and trust-related constraints. Preference for cash is the main barrier (27.8%), followed by lack of trust (19.2%), low perceived usefulness (15.9%), limited digital skills (12.6%), and high fees (11.3%). At the same time, respondents indicate that future digital banking use would be encouraged by stronger security guarantees (43.7%), more online services (42.4%), wider acceptance by businesses and public institutions (34.4%), simpler applications (33.8%), and better customer support (32.5%).

Table 3. Main barriers and enabling factors.

Theme	Item	n	%
Encountered problems	Technical errors/service interruptions	54	35.8
	Personal data security concerns	29	19.2
	Limited functionalities	25	16.6
	Fraud risk	22	14.6
	Difficulty of use	22	14.6
	Insufficient bank support	15	9.9
Barriers to more frequent use	Preference for cash	42	27.8
	Lack of trust	29	19.2
	Services not useful enough	24	15.9
	Limited digital skills	19	12.6
	High fees	17	11.3
Drivers of greater use	Stronger security guarantees	66	43.7
	More online services	64	42.4
	Wider acceptance by firms/public institutions	52	34.4

	Simpler, more intuitive apps	51	33.8
	Better customer support	49	32.5

Source: Authors

Multi-response percentages are based on total respondents, so totals exceed 100 per section. The coexistence of positive trust scores and strong demand for stronger security guarantees is particularly significant. It suggests that users consider the system safe enough to use, but not safe enough to increase their reliance on it. Security therefore appears to be a necessary condition, but not by itself a sufficient driver of active engagement.

Analytical diagnostics of the delegation chain (T1-T4)

To connect the survey evidence to the study's conceptual argument, the results were organized into four analytical tests. Each test examines whether a key link in the delegation chain appears to hold or to weaken.

Table 4. T1-T4 analytical diagnostics and interpretation

Test	Delegation dimension	Survey evidence	Interpretation
T1	Understanding	74.8% rate their knowledge as good/very good, but 74.2% still want more training and 80.1% say financial education affects use.	Knowledge is present but not fully secure; users still seek guidance. Autonomy is therefore not fully internalized.
T2	Participation	Use is concentrated in basic tasks, while 42.4% want more online services and 34.4% want wider institutional/business acceptance.	Users participate operationally, but the ecosystem is not yet broad enough to sustain deeper digital participation.
T3	Trust competence in	62.3% report high trust, yet 43.7% still want stronger security guarantees; lack of trust remains a barrier for 19.2%, and technical errors affect 35.8%.	System trust exists, but confidence is not robust enough to remove hesitation or perceived exposure.
T4	Autonomy	92.7% have an active account and 76.8% are willing to use more digital services, yet only 46.4% use digital banking weekly/daily.	Formal autonomy is high, but active self-service remains partial. Delegation is real in form, incomplete in depth.

Source: Authors

Taken together, the four diagnostics show a common pattern: customers are expected to act on their own, but the conditions for confident, informed, and wider self-service are only partly present. This is more consistent with ceremonial than authentic delegation.

Exploratory model: what predicts intensive digital use?

To go beyond description, the study uses an exploratory binary logistic model in which the dependent variable equals one for respondents who use digital banking weekly or daily. The model includes indicators of trust, knowledge, cash preference, lack of trust, and selected controls. The final controls are age group, education level and gender, in line with the digital banking adoption literature. Because the sample is relatively small ($N = 151$) and the number of intensive users is limited (70), the model is intentionally simple. Its results are therefore interpreted as exploratory patterns, not as stable effect sizes or causal estimates, but as a structured check of the survey narrative.

Table 5. Exploratory binary logistic model of weekly/daily digital use

Variable	Odds ratio	p-value	Interpretation
High trust (score 4–5)	1.31	0.502	Positive but statistically weak once knowledge and barriers are considered.
High knowledge (good/very good)	9.42	<0.001	Strongest positive predictor of intensive use.
Cash preference barrier	0.33	0.027	Substantially reduces the likelihood of weekly/daily use.
Lack-of-trust barrier	0.33	0.037	Significantly reduces intensive use.

Source: Authors

(The model is based on 151 respondents. It examines weekly or daily use of digital banking versus lower levels of use. The table reports odds ratios for the main predictors, while age, education, and gender are included in the model but omitted from the table for simplicity. The full results, including confidence intervals and model statistics, should be presented in the online appendix.)

The model sharpens the core argument of the paper. High trust points in the expected direction, but it is not enough on its own to explain intensive use. By contrast, high knowledge is strongly associated with weekly/daily use. This supports the abstract's claim that perceived safety alone does not generate stronger performance outcomes. Users do not become active merely because the system appears secure; they become active when security is combined with understanding, habit formation and practical usability.

Discussion: Banking without banks?

The findings suggest that digital banking in Albania has moved beyond symbolic modernization, but it has not yet reached full customer empowerment. Customers now have real operational autonomy: they can check balances, pay bills, make transfers and shop online without going to a bank branch. However, the survey shows that this autonomy is still limited by the continued need for explanation, reassurance, support and a more developed digital environment.

For this reason, the idea of “banking without banks” should be treated with caution. Even if the branch is no longer needed for the transaction itself, institutional support is still necessary. In some ways, it becomes even more important. When digital systems shift banking tasks to customers, they also shift responsibility for understanding the process, dealing with errors and protecting themselves. If banks do not support this shift with clear guidance, user-friendly design and responsive help, customers may become responsible without being truly empowered.

The clearest example of this, is what the study calls the paradox of passive safety. This means that users may see digital banking as safe enough for basic use but not safe enough to rely on more fully. In this situation, security, works as a basic requirement, not as a factor that encourages stronger engagement. It cannot replace other important supports such as understanding, participation and trust in one’s own ability. In the survey, many respondents report relatively high trust and do not express strong fear. At the same time, stronger security guarantees remain the most requested improvement, while intensive use is still below the majority level. This suggests that security provides reassurance in the background but does not by itself motivate users to depend more deeply on digital banking.

The role of knowledge is also important. The significant link between knowledge and intensive use, together with the very strong demand for more training, shows that digital banking

adoption is not only a technical issue but also a learning issue. Authentic delegation requires banks not only to provide access, but also to build customer competence.

Finally, the participation dimension shows that the issue goes beyond the banking app itself. Respondents ask for wider acceptance by businesses and public institutions, more online services, and simpler applications. This suggests that digital delegation can succeed only when the wider socio-technical environment also supports it. Customers cannot be fully autonomous in digital finance if many transactions still require offline steps, fragmented processes, or a return to cash.

From ceremonial delegation to authentic delegation: strategic pathways

Moving from ceremonial delegation to authentic delegation requires more than expanding digital access. It requires strategic changes that strengthen customer understanding, support, confidence, and the wider conditions of effective digital use.

First, banks should make digital self-service more human-centred. The findings show that formal autonomy alone is not enough when users still fear making mistakes, seek reassurance, and report practical frictions such as insufficient bank support (9.9%), difficulty of use (14.6%), and technical errors or service interruptions (35.8%). In delegation terms, this points to weak confidence in competence (T3) and weak supported autonomy (T4): the task is transferred to the customer, but the support needed for confident action is not fully transferred with it. A practical response would be to provide contextual help directly inside the banking app, such as real-time support, short explanations for sensitive transactions, and guidance when users hesitate or stop during a transaction. These measures would also respond to the demand for better customer support (32.5%) and simpler applications (33.8%), helping to reduce the gap between formal access and effective self-service.

Second, banks should treat customer education as part of the digital service itself, not as something separate. The exploratory logistic model shows that high knowledge is the strongest positive predictor of weekly or daily digital use (odds ratio = 9.42, $p < 0.001$). This is supported by the survey evidence: 80.1% of respondents believe that financial education affects their use of digital banking, and 74.2% are still interested in further training, even though 74.8% already rate their knowledge as good or very good. This reflects the T1 dimension, because autonomy becomes meaningful only when institutions transfer not just the task, but also the understanding needed to perform it with confidence. For this reason, banks should integrate micro-learning tools, short security tutorials and feature-specific onboarding into the digital journey itself, so that building user capability becomes part of the core service.

Third, authentic delegation requires a wider digital ecosystem beyond the banking app. Users already participate in digital banking, but within a limited range of activities: online purchases (74.2%), bill payments (51.7%), and account monitoring (49.7%) are common, while tax payments remain rare (12.6%). At the same time, cash preference remains the main barrier to more frequent use (27.8%) and respondents ask for more online services (42.4%) and wider acceptance by businesses and public institutions (34.4%). This reflects the T2 dimension: users do participate, but the surrounding system is not yet broad enough to support deeper digital engagement. Digital banking cannot become fully autonomous if users still must leave the digital environment to complete ordinary financial tasks. Banks, businesses, public institutions, and regulators should therefore work together to create interoperable payment systems, integrated bill and tax payment channels and wider digital acceptance, so that reliance on cash gradually declines.

Conclusions

This article examined whether the move toward digital self-service in Albanian banking reflects authentic delegation or only ceremonial delegation. The findings suggest a balanced conclusion. Banks have given customers formal autonomy: access is high, digital use is common and many users are open to greater future use. However, the wider delegation process is still incomplete because understanding, trust in one's own ability and support from the wider service environment have not been developed to the same degree.

The practical message is that banks need to move beyond simply offering digital channels and focus instead on the quality of delegation. This means including customer education in the service journey, making applications easier to use, improving contextual support, reducing technical problems and increasing the number of services that can be completed fully online. It also means working with businesses, public institutions and regulators so that digital banking becomes part of everyday transactions, rather than remaining limited to a small number of routine activities.

For policymakers, the findings highlight the continued importance of financial education and inclusive payment systems. For researchers, the study shows that digital banking should be understood not only through adoption models, but also through ideas of delegated responsibility and capability-building.

For practitioners, the main lesson is clear, customers do not become truly autonomous simply because a banking function is moved to a screen. They become autonomous when banks transfer not only the task but also the understanding and support needed to perform it with confidence.

Taken together, the three strategic pathways presented in section above, humanizing digital self-service, embedding customer education as part of the service and expanding the transaction ecosystem, lead to one main conclusion. The move from ceremonial to authentic delegation in digital banking cannot be achieved through technology alone. It requires a deliberate redesign of the customer relationship, in which access, understanding, and ecosystem support are developed with equal attention.

Limitations and Further Research

This study has six main limitations. First, the sample is not fully representative because it includes more urban and educated respondents. Second, the survey was done at one point in time, so it cannot show how changes happen over time. Third, the delegation dimensions were built from the survey questions, not from a fully tested scale. Fourth, because all answers came from the same questionnaire, there is a risk of bias in the responses. Fifth, the sample is relatively small for the logistic model, which may affect the strength of some results. Sixth, the study focuses only on Albania, so the findings cannot be applied to other countries without further research.

Future research could improve this by using a larger and more representative sample, adding interviews and developing a better tool to measure customer-side authentic delegation. It could also follow the same users over time, compare survey answers with real bank usage data and test the same model in similar countries.

References

- Ahearne, M., Mathieu, J., & Rapp, A. (2005). To empower or not to empower your sales force? An empirical examination of the influence of leadership empowerment behavior on customer satisfaction and performance. *Journal of Applied Psychology*, 90(5), 945-955.

- Arnold, J. A., Arad, S., Rhoades, J. A., & Drasgow, F. (2000). The empowering leadership questionnaire: The construction and validation of a new scale for measuring leader behaviors. *Journal of Organizational Behavior*, 21(3), 249-269.
- Bank of Albania. (2018). *Albania National Retail Payments Strategy 2018–2023*. Tirana: Bank of Albania.
- Bank of Albania. (2025). *Annual Report 2024*. Tirana: Bank of Albania.
- Pano, N., & Angjeli, G. (2023). Operation of Digital Banking Products in Albania. *Economic Alternatives*, issue 4, 867–878. <https://doi.org/10.37075/EA.2023.4.12>
- Bank of Albania. (2024). *Digital Transformation of the Albanian Banking System: The Results of the Albanian Banking Sector Digitalization Survey 2024*.
- Lleshaj, L., & Lika, B. (2024). Customer Perceptions of Awareness and Security of E-banking Usage. In *ERAZ Conference Proceedings* (pp. 417–425). <https://doi.org/10.31410/ERAZ.2024.417>
- Gjika, I., & Zefi, R. (2025). The Adoption and Challenges of E-Payments in Albania: Trends, Security Concerns, and Future Prospects.
- Vuković, M., Pivac, S., & Kundid, D. (2019). Technology Acceptance Model for the Internet Banking Acceptance in Split. *Business Systems Research Journal*, 10(2).
- Šabotić, Z., Vehapi, S., & Lekpek, A. (2023). Customers' Intention in Terms of Using Mobile Banking Services in Serbia. In *Digital Transformation of the Financial Industry*.
- Antonijević, M., Ivanović, Đ., & Simović, V. (2021). Adoption of Mobile Banking in the Republic of Serbia.
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). Thousand Oaks, CA: SAGE.
- Laukkanen, T. (2016). Consumer adoption versus rejection decisions in seemingly similar service innovations: The case of the Internet and mobile banking. *Journal of Business Research*, 69(7), 2432-2439.
- Shaikh, A. A., & Karjaluoto, H. (2015). Mobile banking adoption: A literature review. *Telematics and Informatics*, 32(1), 129-142.
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118-144.

THE USE OF ALTERNATIVE (DIGITAL) PAYMENT METHODS EFFECT ON MONEY DEMAND IN ALBANIA

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Abstract

This paper examines the impact of alternative payment methods on money demand in Albania over the period 2008–2024, addressing a gap in the empirical literature on the effects of alternative payment methods on the financial system. Although several studies have been conducted on consumer behaviour related to the adoption of alternative payment methods, such as debit and credit cards, in Albania, there are no studies that focus on their impact on money demand. The main objective is to analyse whether the use of digital payment instruments reduces money demand. The central research question investigates the effects of POS transactions, ATM usage, debit cards, credit cards, GDP, and interest rates on money demand in Albania. The study employs a log-linear econometric model using annual data from the Bank of Albania and the World Bank. This approach allows for the estimation of long-run relationships between money demand and payment system development while controlling for macroeconomic variables. The results show that POS transactions have a statistically significant negative effect on money demand, confirming their role as a cash substitute. In contrast, ATM usage has a significant positive effect, indicating that ATMs primarily facilitate cash withdrawals rather than reduce cash dependence. Debit cards have a weak positive effect, while credit cards are statistically insignificant.

Keywords: Money Demand, POS Transactions, ATM Transactions, Debit Cards, Log-linear Model.

1. Introduction

In economics, money demand refers to the financial assets that individuals wish to hold, that is, the amount of currency in circulation. Studies on the impact of money in the economy are grounded in monetary theories, and a significant part of this research analyzes money demand, identifying the factors that influence its fluctuations. Studies on money demand date back to the 19th century and have their roots in classical economic thought.

Among the traditional factors influencing money demand, this paper focuses on the impact of alternative and digital payment methods, specifically the shift from cash-based transactions to alternative instruments such as credit and debit cards, on the amount of money in circulation. Credit and debit cards serve as transaction instruments connected to POS terminals (points of

sale). Credit cards additionally function as borrowing instruments, whereas debit cards linked to ATMs (Automated Teller Machines) provide liquidity for cash withdrawals from checking accounts.

According to Voka and Ruxho (2022), the transition toward e-commerce, digital and instant payments, as well as other substitutes for cash, has accelerated markedly in recent years. The use of technology in delivering financial services has reshaped consumer behavior, increasing the demand for more tailored, efficient, and affordable services. At the same time, the financial system is evolving toward models that reduce reliance on cash, thereby fostering the widespread adoption of digital transactions (Voka & Ruxho, 2022).

As technology becomes increasingly important in society, banks in Albania are placing greater emphasis on promoting digital services as alternative channels for interacting with customers. The expansion of electronic banking accelerated further following the outbreak of the pandemic, supported by regulatory measures from the Bank of Albania, which, during the economic lockdown, eliminated fees for interbank online payments (Voka & Ruxho, 2022). Financial technology, which refers to financial innovation through technology that results in new business models, applications, processes or products related to financial markets and the provision of financial services, represents one of the most efficient ways to deliver financial services remotely (Balla, 2020). Despite the development of the banking sector in Albania during the recent transition period, a significant share of the population has been unable to access banking services for various reasons. One of the key challenges facing Albania's financial markets continues to be the level of financial literacy among consumers (Balla, 2020).

The paper is structured as follows: Section 2 provides a review of the literature, covering both theoretical and empirical studies. Section 3 describes the methodology employed. In this paper, the authors use a log-linear econometric model with data spanning 17 years in Albania. Section 4 provides the results and discussion, and Section 5 concludes with the main findings and recommendations.

2. Literature review

2.1 Theoretical literature

The following quantitative theories of money are the main contributors in addressing the research problem:

Fisher's transaction approach to money demand;

The Cambridge cash-balance theory;

Keynes's liquidity preference theory;

Friedman's modern quantity theory of money.

Fisher's theory and the Cambridge approach both belong to the classical perspective, according to which money demand is directly proportional to income (Persons, 1911). The difference between the two lies in the emphasis they place on the level and method of transaction execution in influencing money demand. According to Keynes's theory, in addition to income, the nominal interest rate plays a crucial role in determining money demand (Salko, Dhuci, & Baholli, 2013). In contrast, Friedman argues that the interest rate has a limited effect, and money demand depends on a broader set of variables (Mankiw, 2015).

In the literature review, the theory to be employed will be the classical variant of the quantity theory of money by the American economist Fisher, as it is the clearest and most suitable framework for developing the conceptual model and deducing the relationships among the variables. The classical theory of money explains movements in price levels as a result of the quantity of money in circulation (M), the velocity of money (V), and the volume of trade. This

theory is formalized through the equation of exchange, which represents the relationship between the money supply and the total value of transactions in the economy (Persons, 1911):

$$MV = \sum P_i Q_i$$

The inverse relationship between money supply (M) and the velocity of money (V) can be explained by assuming that the quantity of goods and services remains constant. An increase in V should lead to a decrease in M. Conversely, for a given total expenditure, a decrease in M results in an increase in V, as V is expressed as the ratio of the amount spent to the amount of money held (Salko, Dhuci, & Baholli, 2013).

The effects of payment methods on the money demand are analyzed indirectly. This occurs through the impact that the alternative instruments of payments have on the velocity of money. The tendency to make payments electronically increases velocity, as individuals do not need to hold large amounts of cash that would otherwise be required to settle all transactions in cash (Salko, Dhuci, & Baholli, 2013).

2.2 Empirical literature

Empirical studies from the late 20th century and onwards provide valuable insights for testing the relationships proposed by the quantity theory of money. One approach to examining the impact of credit card usage on money demand was conducted by Duca and Whitesell (1991), using a probit model, yielding results consistent with theory, but showing no significant effect in the short run. According to Yazgan and Yilmazkuday (2007), in an economy with a well-developed card payment system, the amount of money demanded is negatively affected by the use of credit cards, as individuals shift all types of their money demand onto credit cards. These different types of money demand are also referred to as liquidity motives (Keynes, 1936).

Furthermore, Yazgan and Yilmazkuday (2007), argue that the effect of debit cards is larger than that of credit cards. Through ATMs, the transaction costs of withdrawing cash with debit cards are lower than those incurred at a bank branch. An increase in the frequency of withdrawals leads to smaller amounts withdrawn per transaction. Using panel data from 13 countries, Amromin and Chakravorti (2007), find that debit cards reduce the demand for small-denomination coins and notes, but have no significant effect on large-denomination bills.

According to the results of an equation estimating the long-run relationship of money demand in Belgium in a log-linear form (Rinaldi, 2001), and a correlation analysis between the money stock and a measure of transaction intensity at POS terminals by Snellman, Vesala, and Humphrey (2000), using data from 10 European countries during 1987–1996, the effect of credit and debit cards is negative but very small and statistically insignificant. The number of ATMs and POS terminals also exhibits a negative impact on money demand, though the relationship is strong.

Canezas and Jara (2021), in their study, identify an intense substitution process between cash and electronic means of payment. The regression results, based on data from 54 economies, show that the increasing use of electronic means of payment reduces the demand for cash. They also state that a number of idiosyncratic and cultural factors explain the high degree of heterogeneity in cash demand across economies.

According to Mlambo and Msosa (2020), variables capturing financial technology are associated with a decline in money demand. In particular, both mobile subscriptions and ATMs exhibit a negative relationship with money demand.

3. Methodology

This study relies on secondary data obtained from the Bank of Albania and the World Bank. The Bank of Albania provided annual data for the period 2008–2024 on the number of debit cards, the number of credit cards, the value of transactions carried out through POS terminals, and the value of transactions conducted through ATMs (Bank of Albania, 2025). The World Bank provided annual data on GDP and the lending interest rate in Albania for the same period (World Bank, 2024).

Annual data covering 17 years, from 2008 to 2024, were used due to the availability of complete information for all variables across both sources. To address the research objectives, the authors formulated the following research question:

How does the use of alternative (digital) payment methods affect money demand in Albania?

Additionally, the paper considers the following sub-questions and hypothesis:

Does the use of POS transactions reduce money demand?

Does ATM usage reduce money demand?

Do debit and credit cards have different effects on M1?

Which channel has a stronger impact: ATMs or POS?

How do economic development (GDP) and the interest rate (R) influence money demand?

Based on the literature and objectives of this paper, the following hypotheses are proposed:

H0: The use of alternative payment instruments has no negative impact on money demand;

H1: The use of alternative payment instruments negatively affects money demand.

3.1 Data and Variables

To estimate money demand, the currency in circulation (M1) is used as a proxy, as it consists of highly liquid assets directly used in transactions and is therefore expected to be influenced by card-based payment methods. Monthly data of M1 were converted into annual figures by calculating arithmetic averages. The independent variables used in the model include (debit_t) number of debit cards; (credit_t) number of credit cards; (POS_t) value of transactions executed via POS terminals; (ATM_t) value of transactions executed via ATMs; (GDP_t) gross domestic product; (R_t) interest rate and (ε_t) error term.

The study employs the following log-linear econometric model:

$$\ln(M1_t) = \beta_0 + \beta_1 \ln(\text{debit}_t) + \beta_2 \ln(\text{credit}_t) + \beta_3 \ln(\text{POS}_t) + \beta_4 \ln(\text{ATM}_t) + \beta_5 \ln(\text{GDP}_t) + \beta_6 R_t + \epsilon_t$$

This model was chosen to analyze long-run determinants of money demand, incorporating card adoption (debit and credit cards), usage of electronic payment instruments (POS transactions), ATM usage, macroeconomic controls (GDP and interest rates). The model allows for the examination of how the development of the payment system affects cash substitution in the economy.

The logarithmic transformation was applied for several reasons. It eliminates unit-scale problems (e.g., ALL vs USD), ensuring comparability. Coefficients can be interpreted as elasticities, providing clear economic interpretation (e.g., a 1% increase in POS transactions indicates the expected percentage change in money demand). It stabilizes variance and reduces heteroskedasticity. It aligns with the majority of previous studies on money demand, which typically use a log-linear specification, such as in the studies of Yazgan and Yilmazkuday (2007), Rinaldi (2001) and others referred on this paper.

4. Results and Discussion

As shown in Table 1, the results of the regression indicate that only the use of POS transactions has a clear negative effect on money demand, while other variables have positive but statistically weaker or insignificant effects.

Table 1. GMM results.

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-7.812	15.76	-0.5	0.63	-42.92	27.3
lnDebit	0.701	0.369	1.9	0.09	-0.121	1.522
lnCredit	-0.009	0.195	-0.05	0.96	-0.442	0.425
lnPOS	-0.342	0.143	-2.39	0.04	-0.661	-0.02
lnATM	1.043	0.309	3.375	0.01	0.354	1.732
lnGDP	0.085	0.804	0.105	0.92	-1.706	1.875
Interest	0.012	0.035	0.36	0.73	-0.064	0.089

Source: Own calculations

The debit card coefficient is positive (0.701) and marginally significant ($p=0.09$), suggesting that an increase in the number of debit cards is associated with a slight increase in M1. The result does not align with the findings of the reviewed empirical literature, but it offers an interesting implication for Albania. This might reflect the Albanian context, where debit cards are mainly used for cash withdrawals through ATMs rather than electronic payments, thus facilitating rather than substituting cash usage.

The credit card coefficient is nearly zero (-0.009) and statistically insignificant ($p=0.96$), indicating that credit card ownership has no meaningful impact on money demand in Albania. As in the study by Yazgan and Yilmazkuday (2007), the effect of debit cards is larger than that of credit cards, although in this paper the effect of debit cards is positive. This is consistent with the limited adoption and usage of credit cards in the country (Balla, 2020).

The POS transactions coefficient is negative (-0.342) and statistically significant ($p=0.04$), demonstrating that increased electronic payments reduce money demand. This confirms that actual usage of cards in POS terminals, rather than mere ownership, plays a crucial role in substituting cash. The result is consistent with Rinaldi's (2001) findings, where the number of POS terminals exhibits a negative impact on money demand and the relationship is strong. However, this does not hold for ATM transactions, as the variable has a positive coefficient (1.043) and highly significant ($p=0.01$), indicating that cash withdrawals substantially increase money demand. This result reflects the dominant role of ATMs in facilitating cash usage, showing that the Albanian payment system exhibits a dual structure: digital payments reduce cash demand, while ATMs sustain it.

GDP has a very small and statistically insignificant positive effect (0.085, $p = 0.92$) on money demand, suggesting that macroeconomic development contributes little once payment system variables are considered. Similarly, the interest rate has a negligible impact (0.012, $p = 0.73$), indicating that traditional monetary policy variables have limited explanatory power in the presence of modern payment system usage.

For this purpose, a correlation analysis was conducted to examine the relationships between the variables. The correlations between variables are given in Table 2.

Table 2. Correlations Between Variables

	<i>lnM1</i>	<i>lnDebit</i>	<i>lnCredit</i>	<i>lnPOS</i>	<i>lnATM</i>	<i>lnGDP</i>	<i>Interest</i>
<i>lnM1</i>	1						
<i>lnDebit</i>	0.953523	1					
<i>lnCredit</i>	0.829204	0.932151	1				
<i>lnPOS</i>	0.947816	0.966768	0.84486	1			
<i>lnATM</i>	0.989579	0.954879	0.822076	0.973535	1		
<i>lnGDP</i>	0.973221	0.978113	0.875065	0.983381	0.984561	1	
<i>Interest</i>	-0.84157	-0.88772	-0.95851	-0.78617	-0.82097	-0.84385	1

Source: Own calculations

The correlation matrix indicates very high pairwise correlations among the independent variables, many of which exceed 0.9. This suggests the presence of multicollinearity, likely driven by common upward trends in the variables over time. However, this is expected given that these variables jointly describe the same underlying financial innovation process. As a result, the estimated coefficients should be interpreted with caution, as multicollinearity may reduce the statistical significance of some variables despite their theoretical relevance. Despite high correlation, the key payment system variables, namely POS and ATM transactions, remain statistically significant and provide robust results.

Based on the empirical results, the null hypothesis (H0) is rejected, while the alternative hypothesis (H1), which states that the use of alternative payment instruments negatively affects money demand, is supported.

5. Conclusions

This study examined the impact of alternative payment methods on money demand in Albania over the period 2008–2024, using a log-linear econometric framework. The analysis provides several generalisations regarding the relationship between financial technology and cash demand in a transitioning economy. A possible limitation of the analysis arises from the very high levels of correlation among the explanatory variables, which suggests the presence of multicollinearity; this may weaken the statistical reliability of individual coefficients and complicate the clear interpretation of their separate effects on money demand.

However, the empirical findings suggest that payment system variables are among the primary determinants of money demand in Albania. In particular, POS transactions have a statistically significant negative effect on money demand, confirming their role as a substitute for cash. Conversely, ATM usage exhibits a significant positive relationship with money demand, indicating that in the Albanian context, ATMs primarily facilitate cash withdrawals rather than reducing cash usage. These results confirm that the effect of financial innovation on money demand depends not only on access to digital instruments but also on their actual usage. The results also emphasize that actual usage of cards, rather than mere ownership, plays a crucial role in shaping money demand dynamics.

As highlighted by Cabezas and Jara (2021), in emerging economies electronic payment systems are still at an early stage of development, meaning that although cash usage may decline, a full transition to a cashless society is unlikely in the near future. Cultural and idiosyncratic factors continue to shape consumer preferences for cash, leading to heterogeneous outcomes across

countries (Cabezas & Jara, 2021). This is particularly relevant for Albania, where the coexistence of digital and cash-based behaviors reflects a transitional financial environment.

Finally, the findings are consistent with the recommendation of Mlambo and Msosa (2020), who emphasize that central banks should closely monitor and anticipate the effects of financial innovations on money demand. As financial systems evolve, monetary authorities need to reassess the stability of money demand and adjust policy instruments accordingly to ensure effective monetary control. The findings suggest that the Bank of Albania should continue to encourage the use of POS-based electronic payments while improving financial literacy and digital payment infrastructure in order to reduce dependence on cash.

References

- Aliha, P. M., Sarmidi, T., & Said, F. F. (2020). Investigating the impact of ATM and POS terminals on money demand in nine European countries in the context of a random effect model as the appropriate panel data model. *Regional Science Inquiry*, 12(1), 31–41.
- Amromin, G., & Chakravorti, S. (2007). *Debit card and cash usage: A cross-country analysis* (Working Paper No. 2007-04). Chicago, IL: Federal Reserve Bank of Chicago.
- Balla, R. (2020). Digitalization of financial services in Albania under restricted measures Covid-19. *European Journal of Marketing and Economics*, 3(2), 17–31.
- Bank of Albania. (2025). *Payment systems statistics*. Retrieved from https://www.bankofalbania.org/Payments/Payment_systems_statistics/
- Cabezas, L., & Jara, A. (2021). The demand for cash: Stylized facts and substitution by electronic means of payment. *CEPAL Review*, 135, 119–145.
- Carstens, A. (2019). *The future of money and payments* (SUERF Policy Note No. 66). Dublin, Ireland: SUERF.
- De Grauwe, P., Rinaldi, L., & Van Cayseele, P. (2006). *Issues of efficiency in the use of cash and cards*. Leuven, Belgium: University of Leuven.
- Duca, J. V., & Whitesell, W. C. (1991). *Credit cards and money demand: A cross-sectional study* (Working Paper No. 9112). Dallas, TX: Federal Reserve Bank of Dallas.
- Duka, G. (2024). Cash to contactless: History, advantages, and evolution of this payment mode in Albania. *Interdisciplinary Journal of Research and Development*, 11(3), 112–119.
- Fujiki, H. (2020). The use of noncash payment methods for regular payments and the household demand for cash: Evidence from Japan. *The Japanese Economic Review*, 71(4), 719–765.
- Keynes, J. M. (1936). *The general theory of employment, interest and money*. London, UK: Macmillan.
- Mankiw, N. G. (2015). *Makroekonomia*. Tiranë, Albania: Mediaprint.
- Mlambo, C., & Msosa, S. K. (2020). The effect of financial technology on money demand: Evidence from selected African states. *International Journal of Economics and Business Administration*, 8(1), 366–373.
- Persons, W. M. (1911). Review: Fisher’s “The purchasing power of money”. *Quarterly Journal of Economics*, 25(4), 818–829.
- Popovska-Kamnar, N. (2014). The use of electronic money and its impact on monetary policy. *Journal of Contemporary Economic and Business Issues*, 1(2), 79–92.
- Ribaj, V. C., & Ribaj, A. (2025). *The use of credit cards and consumer access models: The pattern of use in Albanian banks*. Retrieved from SSRN.
- Rinaldi, L. (2001). *Payment cards and money demand in Belgium*. Leuven, Belgium: Katholieke Universiteit Leuven.
- Salko, D., Dhuci, O., & Baholli, F. (2013). *Paraja dhe banka*. Tiranë, Albania: Neraida.
- Snellman, J., Vesala, J., & Humphrey, D. (2000). *Substitution of noncash payment instruments for cash in Europe* (Discussion Paper No. 1/2000). Helsinki, Finland: Bank of Finland.
- Teliti, E., & Mersini, R. (2012). Assessment of e-banking services and legal framework in Albania. *Mediterranean Journal of Social Sciences*, 3(7), 267–282.
- Voka, I., & Ruxho, F. (2022). Use of financial technology in Albania. *Economicus*, 21(1), 36–45.
- World Bank. (2024). *Data: Albania*. Retrieved from <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=AL>
- Yazgan, E. M., & Yilmazkuday, H. (2007). The effects of credit and debit cards on the currency demand. *Applied Economics*, 39(17), 2115–2123.

DIGITAL TRANSFORMATION AND FISCALIZATION: EVIDENCE FROM FINANCIAL REPORTING PRACTICES IN ALBANIA

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Abstract

This paper examines the impact of digital transformation and fiscalization specifically the implementation of mandatory e-invoicing on financial reporting quality in Albania. Drawing on secondary data from government agencies, international institutions such as the International Monetary Fund (IMF) and World Bank, and academic literature, the study employs a qualitative and analytical research approach, including comparative and trend analysis of pre- and post-fiscalization indicators. The paper addresses the persistent challenges of economic informality and tax evasion that have historically undermined the accuracy, reliability, and transparency of financial reporting in the Albanian business environment. Theoretical frameworks linking digitalization to improved internal controls, increased fiscal compliance, and enhanced reporting standards are explored and applied to the Albanian context. Findings suggest that fiscalization has contributed measurably to improvements in tax revenue collection, reported business transaction volumes, and formalization indicators, with positive implications for financial reporting quality. However, significant implementation challenges persist particularly for small and medium-sized enterprises (SMEs) and in regions with limited digital infrastructure. The paper concludes with policy recommendations for consolidating digital reform gains and directions for future empirical research.

Keywords: Digital Transformation, Fiscalization, E-invoicing, Financial Reporting Quality, Albania, Tax Compliance, Informality

CHAPTER I: INTRODUCTION

1.1 Global Context: Digital Transformation in Accounting

The past two decades have witnessed a profound transformation in accounting and financial reporting practices worldwide, driven primarily by rapid advances in digital technology. The adoption of Enterprise Resource Planning (ERP) systems, cloud-based accounting platforms, robotic process automation (RPA), and artificial intelligence (AI) tools has fundamentally

altered how financial data is captured, processed, verified, and reported. Globally, the shift toward digitalization in accounting is not merely a matter of operational efficiency; it represents a structural reconfiguration of how organizations manage financial information, ensure regulatory compliance, and communicate economic performance to stakeholders.

International organizations such as the International Federation of Accountants (IFAC), the Organisation for Economic Co-operation and Development (OECD), and the World Bank have consistently highlighted the critical role of digital transformation in strengthening fiscal systems, particularly in emerging and transition economies. The deployment of electronic invoicing (e-invoicing), digital audit trails, and real-time tax reporting systems has emerged as a cornerstone of public revenue modernization strategies across Europe, Latin America, and Southeast Asia.

1.2 Fiscalization and E-Invoicing in Albania

Albania, as a small open economy in the Western Balkans and an EU accession candidate, has undergone considerable reform in its fiscal and administrative systems over the past decade. A landmark step in this process was the implementation of the fiscalization system, initiated through Law No. 87/2019 "On Invoice and Turnover Monitoring System" and its associated regulations. The new fiscalization regime, which became progressively mandatory for businesses between 2021 and 2022, replaced the older fiscal cash register system with a comprehensive, real-time electronic invoicing infrastructure, managed and overseen by the Albanian Tax Administration (Administrata Tatimore e Shqiperise, ATS).

Under this framework, businesses are required to issue, transmit, and archive all invoices electronically through a centralized government platform, allowing tax authorities near-instantaneous visibility into commercial transactions. The system represents a fundamental shift from ex-post tax auditing to real-time fiscal monitoring a change with potentially far-reaching implications for financial reporting practices, taxpayer compliance behavior, and the overall quality of financial data in the Albanian economy.

1.3 Problem Statement: Pre-Digitalization Challenges

Prior to the introduction of the new fiscalization system, Albania faced well-documented structural challenges in its fiscal and financial reporting landscape. The informal economy has historically represented a substantial share of economic activity, with estimates from the World Bank and IMF suggesting that informality accounted for between 30 and 50 percent of GDP in various periods. High rates of tax evasion, cash-based transactions, and the widespread use of unregistered employment contributed to a tax compliance environment characterized by significant gaps between reported and actual economic activity.

These conditions directly undermined the quality of financial reporting at the firm level. When revenues and transactions go unrecorded or are deliberately misrepresented to minimize tax obligations, the resulting financial statements fail to meet fundamental standards of transparency, accuracy, and reliability. External stakeholders including investors, creditors, regulators, and auditors face elevated information asymmetry, making capital allocation decisions less efficient and governance mechanisms less effective.

1.4 Research Objective and Relevance

This paper aims to assess the impact of fiscalization and digital transformation on financial reporting quality in Albania, drawing on theoretical insights from the accounting and fiscal compliance literature and on secondary data from official and institutional sources. The analysis focuses on identifying whether and how the shift toward digital fiscalization has altered reporting practices, compliance behaviors, and governance outcomes in the Albanian business environment.

The research is particularly relevant in the context of Albania's aspirations toward EU membership, which impose increasing convergence requirements on accounting standards, fiscal transparency, and financial reporting quality. Moreover, the findings carry practical implications for policymakers, tax administrators, accounting professionals, and businesses navigating the evolving regulatory landscape. Understanding the relationship between digitalization and reporting quality is essential for designing effective reform strategies that can accelerate economic formalization and institutional development.

CHAPTER II: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Digital Transformation in Accounting: Concepts and Mechanisms

Digital transformation in accounting encompasses a broad range of technological innovations that fundamentally alter financial data management processes. Scholars have generally conceptualized digital transformation as the integration of digital technologies into all areas of business operations, resulting in fundamental changes to how organizations create and deliver value (Vial, 2019). In the accounting domain, this transformation manifests through several key mechanisms.

The adoption of ERP systems such as SAP, Oracle, or Microsoft Dynamics integrates previously siloed financial functions into a unified platform, enabling real-time data capture and processing, automated reconciliation, and standardized reporting outputs (Daoud and Triki, 2013). Research consistently shows that ERP implementation is associated with improved data quality, reduced processing errors, and stronger internal controls (Grabski et al., 2011). Beyond ERP systems, cloud-based accounting platforms have democratized access to sophisticated financial management tools, particularly for small and medium-sized enterprises, reducing barriers to formal and accurate bookkeeping.

More recently, the application of robotic process automation and AI-powered analytics to accounting tasks has begun to shift the role of accountants from transactional processors to analytical advisors, with automation handling routine data entry, invoice matching, and compliance reporting (Cooper et al., 2019). These developments collectively point toward a paradigm in which digital infrastructure functions as both an enabler and an enforcer of financial reporting quality.

2.2 Fiscalization and E-Invoicing Systems

2.2.1 Definition and Purpose

Fiscalization refers to the use of technical and administrative mechanisms to ensure that financial transactions are accurately registered, reported to tax authorities, and made resistant to post-hoc manipulation. Modern fiscalization systems centered on e-invoicing represent a digital evolution from the earlier fiscal cash register requirements that characterized tax compliance frameworks in many Central and Eastern European countries during the 1990s and 2000s.

E-invoicing systems require businesses to issue invoices in a standardized electronic format, transmitted in real time or near-real time to a centralized government repository. The core purposes of such systems are threefold: to create an auditable digital trail of commercial transactions, to reduce opportunities for underreporting of revenues and overstatement of deductible expenses, and to enable tax authorities to detect compliance anomalies more efficiently and at lower administrative cost (OECD, 2017).

2.2.2 International Experiences

The international experience with e-invoicing and fiscal digitalization provides a rich body of evidence. In Latin America, Brazil's Nota Fiscal Electronica system, introduced in 2005, and Chile's earlier electronic invoicing mandate have been extensively studied. Research on these cases demonstrates significant improvements in VAT compliance rates, increases in registered taxpayer populations, and measurable reductions in tax gaps following implementation (Pomeranz, 2015; Naritomi, 2019).

Within the European Union, the VAT Digital Reporting Requirements (VDRR) framework and the broader e-invoicing mandates that have been progressively introduced across member states reflect a strategic commitment to leveraging digitalization for fiscal integrity. Countries such as Italy, which introduced mandatory e-invoicing for all B2B transactions in 2019, have reported significant improvements in VAT collection efficiency. The European Commission's VAT in the Digital Age (ViDA) package, proposed in 2022, further signals the direction of travel: toward real-time, transaction-level reporting as the standard for fiscal compliance across the EU internal market.

The OECD's work on Tax Administration 3.0 outlines a vision in which digital integration between businesses' accounting systems and tax authority platforms enables seamless, near-automatic compliance, reducing compliance burdens while simultaneously improving data quality available to revenue authorities (OECD, 2020). This vision closely aligns with the trajectory of Albania's fiscalization reform.

2.3 Financial Reporting Quality: Characteristics and Determinants

The quality of financial reporting is a multi-dimensional construct that has been extensively theorized and operationalized in the accounting literature. Building on foundational frameworks such as the IASB's Conceptual Framework for Financial Reporting and the FASB's Statement of Financial Accounting Concepts, financial reporting quality is typically assessed along four primary dimensions:

- **Transparency:** The extent to which financial statements provide a clear, complete, and unobstructed view of an entity's financial position and performance, without obscuring material information through complex accounting structures or selective disclosure.
- **Reliability:** The degree to which reported financial information faithfully represents the underlying economic events and transactions, free from material error or bias. Reliability encompasses verifiability, neutrality, and representational faithfulness.
- **Timeliness:** The extent to which information is made available to users while it retains the capacity to influence decisions. In a digital reporting environment, timeliness is increasingly assessed at near-real-time intervals rather than on an annual or quarterly cycle.
- **Accuracy:** The precision with which financial data reflects actual economic transactions, encompassing both measurement accuracy (correct valuation) and classification accuracy (appropriate categorization of transactions within the financial reporting framework).

Research on the determinants of financial reporting quality has identified both institutional and firm-level factors. Dechow et al. (2010) provide a comprehensive review, highlighting the roles of accounting standards, auditing quality, corporate governance mechanisms, and regulatory enforcement in shaping reporting outcomes. Critically, the literature also points to the role of information technology as a structural determinant of reporting quality, with firms employing more sophisticated IT infrastructure consistently demonstrating higher quality financial outputs (Bhimani and Willcocks, 2014).

2.4 Theoretical Links: Digitalization, Control, and Reporting Quality

A coherent theoretical framework connecting digital transformation to improved financial reporting quality can be constructed from several complementary strands of research. Agency theory provides the foundational insight that information asymmetry between principals (shareholders, creditors, regulators) and agents (managers) creates incentives for opportunistic reporting behavior. Digital systems, by automating data capture and creating immutable audit trails, structurally reduce the discretionary space available to agents, thereby attenuating reporting manipulation (Jensen and Meckling, 1976).

Institutional theory adds a complementary lens: as digital reporting systems become institutionalized through regulatory mandates, organizations face increasing normative and coercive pressures to conform to standardized reporting practices (DiMaggio and Powell, 1983). Over time, these pressures can drive convergence toward higher reporting quality norms, particularly in environments where informal practices had previously been widespread. The compliance literature specifically addresses the relationship between tax reporting infrastructure and financial reporting quality. Kleven et al. (2011), in their study of third-party reporting and information trails, demonstrate that the existence of verifiable transaction records precisely the function served by fiscalization systems dramatically increases tax compliance rates and reduces the incidence of underreporting. Since tax compliance and financial reporting quality share a common empirical base the accurate recording of transactions improvements in one domain can be expected to positively correlate with improvements in the other.

2.5 Research Gap

Despite the growing body of evidence on the effects of fiscal digitalization in Latin American and EU contexts, the academic literature specifically addressing Albania remains limited. The few existing studies on Albanian tax reform tend to focus on policy design and administrative capacity rather than on the downstream effects of fiscal digitalization on financial reporting practices (Musabelliu, 2019; OECD/SIGMA, 2021). No systematic empirical study has yet examined whether and to what degree the 2021-2022 fiscalization reforms have altered financial reporting quality at the firm level in Albania. This paper seeks to partially address this gap through a theoretically grounded analysis of available secondary data and by establishing a conceptual framework for future primary research.

CHAPTER III: METHODOLOGY AND ANALYSIS

3.1 Research Approach

This study adopts a qualitative and analytical research approach, which is appropriate given the nature of the research questions and the currently available data. Rather than testing specific statistical hypotheses using primary survey or archival firm-level data, the study seeks to construct a coherent analytical narrative by synthesizing evidence from secondary sources within a theoretically informed framework. This approach is consistent with methodological traditions in institutional economics and policy analysis, where secondary data interpretation and comparative analysis are established tools for generating theoretically grounded insights (Yin, 2014).

3.2 Data Sources

The empirical foundation of the analysis rests on secondary data drawn from a range of official and institutional sources:

- Albanian Tax Administration (ATS): Annual reports, press releases, and statistical bulletins providing data on tax revenue collection, registered taxpayer counts, e-invoice volumes, and compliance indicators, covering the period 2018-2023.
- Albanian Ministry of Finance and Economy: Budget execution reports and fiscal performance data offering aggregate indicators of revenue formalization and tax compliance trends.
- International Monetary Fund (IMF): Article IV Consultation reports on Albania, which include assessments of fiscal policy, informality estimates, and tax administration reform evaluations.
- World Bank: Enterprise surveys, Doing Business indicators, and country economic reports providing firm-level and macroeconomic context for informality and financial reporting practices.
- OECD/SIGMA: Technical assessments of Albania's public administration reform, including evaluations of fiscal digitalization initiatives.
- Academic literature: Peer-reviewed studies on e-invoicing impacts, digital transformation in accounting, and financial reporting quality in transition economies, accessed through databases including JSTOR, EBSCOhost, and Google Scholar.

3.3 Method of Analysis

The primary analytical strategy is comparative analysis, examining changes in key fiscal and reporting quality indicators before and after the implementation of the fiscalization mandate (with 2020 serving as the approximate baseline year, prior to the 2021 rollout). Specifically, the analysis tracks:

- Tax revenue trends, particularly VAT collection efficiency and personal/corporate income tax compliance rates.
- Volumes of registered electronic transactions and invoices as a proxy for the formalization of economic activity.
- Informality indicators, including shadow economy estimates as a percentage of GDP.
- Changes in the registered taxpayer population and business registration rates.

This comparative analysis is supplemented by trend analysis examining the direction and magnitude of change in key indicators over multi-year periods and by interpretive analysis, in which observed data trends are explained and contextualized with reference to the theoretical framework established in Section 2. The latter approach is particularly important for connecting macro-level fiscal data to the micro-level concept of financial reporting quality, a linkage that cannot be established through quantitative data alone in the absence of firm-level reporting quality metrics.

3.4 Limitations

The study's findings must be interpreted in light of several important limitations. First, the absence of primary data such as survey responses from business owners, accountants, or auditors, or archival analysis of firm-level financial statements means that conclusions about financial reporting quality remain inferential rather than directly measured. The study demonstrates associations and offers theoretically grounded interpretations; it does not establish causal relationships.

Second, the availability of granular, disaggregated data for Albania is constrained. While macro-level fiscal statistics are available, firm-level data on reporting accuracy, audit outcomes, or financial statement restatement rates are not consistently published in forms that permit systematic analysis.

Third, external factors including macroeconomic fluctuations, the COVID-19 pandemic's effects on the Albanian economy during 2020-2021, and concurrent administrative reforms may have influenced the indicators examined. Isolating the specific effect of fiscalization from these confounding factors is methodologically challenging without more sophisticated econometric tools applied to primary data.

These limitations underscore the paper's positioning as a conceptual and exploratory contribution, intended to lay theoretical and empirical groundwork for more rigorous primary research.

CHAPTER IV: FINDINGS AND DISCUSSIONS

4.1 Evidence from Secondary Data

4.1.1 Tax Revenue Collection Trends

Available data from the Albanian Ministry of Finance and Economy and IMF assessment reports reveal a discernible upward trend in tax revenue collection coinciding with the progressive rollout of fiscalization. According to IMF Article IV Consultation documents, Albania's tax-to-GDP ratio demonstrated meaningful improvement between 2020 and 2023, rising from approximately 26.3 percent of GDP in 2020 to approximately 29.1 percent in 2022, a notable increase by regional standards and one that Albanian fiscal authorities have partially attributed to the new fiscalization framework.

VAT collection, which is most directly affected by invoice-based reporting requirements, showed particularly strong improvement. The Albanian tax administration reported that VAT revenues grew by approximately 18 percent in real terms between 2020 and 2022, outpacing overall nominal GDP growth and suggesting a structural improvement in compliance rather than merely a cyclical revenue increase. These trends are consistent with international evidence on e-invoicing impacts: studies from Italy and Brazil similarly documented significant VAT revenue improvements following e-invoicing mandates, attributable to the reduction in invoice fraud and underreporting.

4.1.2 Reported Business Transactions and E-Invoice Volumes

The Albanian Tax Administration has publicly reported substantial growth in the volume of electronic invoices generated through the new fiscalization platform since its launch. By the end of 2022, the ATS reported the processing of hundreds of millions of electronic invoices, representing a significant portion of the commercial transactions that had previously been conducted through less traceable means. The progressive expansion of mandatory fiscalization covering businesses in additional sectors and transaction types over time has contributed to a steady increase in the digital transaction register.

These volumetric indicators serve as a meaningful proxy for the formalization of economic activity. When previously off-books transactions are brought into the electronic invoicing system, they become visible to tax authorities and, by extension, must be reflected in the financial records of the businesses involved. The sheer scale of the documented increase in registered transactions suggests a material shift in reporting behavior, even if the precise impact on the quality of the resulting financial statements cannot be directly measured from aggregate data.

4.1.3 Informality Indicators

Estimates of Albania's shadow economy size, while inherently uncertain, suggest a gradual trend toward formalization. World Bank and IMF analyses indicate that the informal economy

as a share of GDP declined moderately over the 2018-2022 period, consistent with the trajectory of fiscal reform initiatives including fiscalization. The 2020 World Bank Enterprise Survey on Albania documented persistent but declining rates of informal competition among formally registered businesses, suggesting that fiscalization may be contributing to a more level playing field by reducing the competitive advantages previously enjoyed by informal operators. Growth in the registered taxpayer population provides additional corroborating evidence. The number of active VAT-registered entities in Albania increased meaningfully during the fiscalization implementation period, consistent with a reduction in incentives for tax non-registration as the e-invoicing system made the tracking of commercial transactions more systematic.

4.1.4 Summary Table of Key Indicators

Table 1: Selected Fiscal and Formalization Indicators, Albania, Pre- and Post-Fiscalization

Indicator	Pre-Fiscalization (~2019)	Post-Fiscalization (~2022)	Direction of Change
Tax-to-GDP Ratio	~26.3%	~29.1%	↑ Positive
VAT Revenue Growth (real)	Baseline	+18% approx.	↑ Positive
Informal Economy Share of GDP	~35-40%	~30-35% est.	↓ Decreasing
Registered VAT Entities	Baseline	Notable increase	↑ Positive
Electronic Invoice Volume	Negligible	Hundreds of millions	↑ Strongly Positive

Sources: IMF Article IV Consultation Reports (Albania); Albanian Ministry of Finance and Economy; World Bank Enterprise Surveys; Albanian Tax Administration Annual Reports. Note: Figures represent approximate values based on available secondary data; precise estimates may vary across sources.

4.2 Interpretation Through Theory: Linking Fiscal Data to Reporting Quality

4.2.1 Increased Transparency

The most direct theoretical connection between fiscalization data and financial reporting quality operates through the mechanism of transaction visibility. When businesses are required to issue and transmit electronic invoices in real time, every covered transaction is simultaneously recorded in both the firm's internal accounting system and the government's central repository. This dual-registration architecture dramatically reduces the scope for selective recording the practice of recording only a subset of actual transactions in formal books which has historically been a primary driver of poor reporting quality in high-informality environments.

From an agency theory perspective, the reduction in information asymmetry between firm management and external stakeholders (including tax authorities, auditors, and investors) represents a structural improvement in the conditions for high-quality financial reporting. When the cost of misreporting is elevated because digital audit trails make discrepancies between the government's transaction records and the firm's financial statements easier to detect the incentive structure shifts toward accurate and complete reporting.

4.2.2 Digital Traceability and Reduced Manipulation

A central feature of e-invoicing systems is the creation of immutable, time-stamped transaction records. Unlike paper-based invoicing, where documents could be altered, backdated, or

destroyed, electronic invoices transmitted to a government platform create a verifiable factual record that cannot be unilaterally modified after transmission. This characteristic of digital traceability directly addresses one of the most serious threats to financial reporting quality: deliberate manipulation of transaction records to understate revenues, overstate expenses, or otherwise misrepresent financial position.

In institutional theory terms, the e-invoicing mandate creates a new set of coercive isomorphic pressures: businesses must conform to standardized, digitally enforced reporting norms, or face both fiscal penalties and reputational consequences. Over time, as compliance becomes routinized and digital transaction recording becomes embedded in organizational processes, normative isomorphism may reinforce the initial coercive impetus with accurate digital recording becoming an internalized professional norm rather than merely an externally imposed compliance requirement.

4.2.3 Real-Time Reporting and Timeliness

The timeliness dimension of financial reporting quality is perhaps the most dramatically affected by fiscalization. Under traditional reporting regimes, the consolidation of transaction data into financial statements involved significant time lags, creating opportunities for both unintentional errors (arising from incomplete records at period end) and intentional manipulation (through period-end adjustments). Real-time electronic invoicing compresses these lags substantially: firms using integrated accounting software linked to the ATS platform can generate substantially complete and up-to-date financial data on a continuous basis.

This improvement in timeliness has downstream effects on the usefulness of financial reporting for decision-making. Creditors, investors, and managers who require timely financial information to make allocative decisions benefit from the availability of more current data. Tax authorities benefit from the ability to identify compliance anomalies on an ongoing basis rather than only during periodic audit cycles.

4.3 Challenges Identified

4.3.1 Implementation Costs and SME Burden

Despite the theoretical and empirical case for fiscalization's positive effects, the implementation process has not been without significant challenges. For small and medium-sized enterprises which constitute the overwhelming majority of the Albanian business population the transition to e-invoicing imposed considerable upfront and ongoing costs. These include the acquisition or upgrading of compatible hardware and software, employee training and process adaptation, and the management of technical integration with the ATS platform. IMF and World Bank assessments have noted that SMEs in Albania often lack the financial resources, technical expertise, and institutional support to manage compliance with complex digital regulatory requirements smoothly. In the transition period, some businesses reported difficulties in correctly configuring their invoicing software, managing connectivity issues, or understanding the technical requirements of the new system. These adaptation difficulties risk creating a compliance gap in which larger businesses better resourced to manage the transition achieve higher levels of reporting quality improvement, while smaller enterprises lag behind.

4.3.2 Technical Infrastructure Limitations

The effectiveness of a real-time e-invoicing system depends critically on the underlying digital infrastructure: reliable internet connectivity, adequate server capacity for the government platform, and the availability of affordable compatible software. Albania has made meaningful progress in digital infrastructure development in recent years; however, significant disparities persist between urban and rural areas. Businesses in remote regions may face connectivity

challenges that impede reliable e-invoice transmission, potentially resulting in processing delays, technical errors, or workarounds that compromise the integrity of the digital audit trail. The ATS platform itself experienced operational challenges during the initial rollout phases, including periods of high load and processing bottlenecks that created disruptions for compliant businesses. While these issues were largely addressed over time, they underscore the importance of investing in robust, scalable government digital infrastructure as a prerequisite for effective fiscal digitalization.

4.3.3 Adaptation Challenges and Behavioral Compliance

Beyond technical and financial challenges, the shift to fiscalization also requires a behavioral and cultural adaptation on the part of business owners, accountants, and employees. In environments where informal practices have been normalized over decades, the internalization of formal compliance behaviors is not achieved simply through regulatory mandate; it requires sustained engagement, education, and a credible demonstration that enforcement will be consistent and consequences meaningful.

Evidence from other fiscalization contexts suggests that the effectiveness of e-invoicing in reducing informality is contingent on taxpayers perceiving both the technical inevitability of detection and the practical certainty of consequences for non-compliance. Building this perception requires not only the technical system but also consistent audit and enforcement activity, transparent communication about compliance rates, and a gradual process of cultural normalization of formal business practices.

CHAPTER V: CONCLUSIONS AND RECCOMANDATIONS

5.1 Conclusions

This paper has examined the relationship between digital transformation, fiscalization, and financial reporting quality in Albania, drawing on secondary data analysis and a theoretically grounded interpretive framework. The analysis supports the following principal conclusions: First, the implementation of mandatory e-invoicing through Albania's new fiscalization system represents a structurally significant intervention in the information environment of financial reporting. By creating immutable, real-time digital records of commercial transactions and making them simultaneously accessible to businesses and tax authorities, the system directly addresses several of the root causes of poor reporting quality that have historically characterized the Albanian business environment, including transaction underreporting, selective bookkeeping, and the normalization of informal practices.

Second, available secondary data from fiscal and macroeconomic sources provides evidence consistent with the hypothesis that fiscalization has contributed to meaningful improvements in transparency, compliance, and economic formalization. The documented increases in tax revenue collection, e-invoice volumes, and the registered taxpayer population, combined with declining informality estimates, suggest that the system is functioning as intended at the macro level.

Third, the theoretical frameworks of agency theory, institutional theory, and fiscal compliance research collectively provide a coherent explanation for why digital fiscalization should be expected to improve financial reporting quality, through mechanisms including information asymmetry reduction, coercive and normative isomorphism, and the structural elimination of opportunities for transaction manipulation.

Fourth, and importantly, the realization of these potential benefits is conditional on effective implementation. Persistent challenges related to SME adaptation, digital infrastructure quality, and behavioral compliance suggest that the transition to a high-quality digital reporting environment remains a work in progress. Full effectiveness requires continued investment in

infrastructure, sustained enforcement commitment, and proactive support for businesses with limited adaptive capacity.

5.2 Policy Recommendations

Based on the analysis presented, the following recommendations are offered for policymakers, tax administrators, and business support institutions:

- **Improve digital infrastructure:** The government should prioritize investment in reliable, high-speed internet connectivity in underserved rural and peri-urban areas, and in the scalability and resilience of the ATS e-invoicing platform. Technical reliability is a precondition for the behavioral compliance changes that fiscalization aims to achieve.
- **Provide continuous training and support:** Accounting professionals, business owners, and tax authority staff require ongoing training on both the technical requirements of e-invoicing systems and on the broader principles of financial reporting quality. Structured training programs, developed in collaboration with professional accounting bodies and business associations, should be embedded as a permanent feature of the compliance support landscape.
- **Support SMEs financially and technically:** Dedicated support mechanisms including subsidized software provision, tax credits for fiscalization compliance costs, and accessible helpdesk services should be targeted at small and micro-enterprises, which face the highest relative burden of adaptation to digital compliance requirements.
- **Enhance monitoring and enforcement:** The value of the e-invoicing system as a tool for improving reporting quality depends critically on consistent and credible enforcement. The tax administration should invest in analytical capacity to use the wealth of transaction data generated by the fiscalization system for risk-based compliance monitoring, audit targeting, and the identification of systematic reporting anomalies.
- **Deepen integration with financial reporting standards:** Policymakers should explore mechanisms to align fiscalization requirements more closely with International Financial Reporting Standards (IFRS) and the Albanian national accounting standards framework, ensuring that the data flows generated by e-invoicing can be more directly leveraged to improve the quality of statutory financial statements.
- **Foster a culture of compliance:** Beyond regulatory enforcement, sustainable improvements in reporting quality require cultural change. Public communication campaigns, transparency reporting on aggregate compliance outcomes, and recognition of compliant businesses can contribute to the normalization of formal reporting practices over time.

5.3 Directions for Future Research

The present study's limitations point clearly toward the most valuable directions for future research. Primary empirical studies using survey methodologies, interviews with accountants and business owners, or archival analysis of firm-level financial statements would enable direct measurement of changes in financial reporting quality at the firm level. Specifically, studies examining whether fiscalization has reduced earnings management, improved audit outcomes, or altered the information content of reported financial figures would significantly advance understanding of the reform's downstream effects.

Firm-level panel data analysis, comparing reporting quality metrics across firms with different sizes, sectors, and technology adoption profiles, would allow identification of heterogeneous treatment effects revealing which types of businesses benefit most from digitalization and which face the most significant implementation barriers. International comparative analysis,

positioning Albania within the broader landscape of Western Balkan and EU accession country experiences with fiscal digitalization, would contribute to both the academic literature and to regional policy dialogue.

Finally, longitudinal research tracking the trajectory of fiscalization's effects over five to ten years would capture dynamic processes of institutional adaptation, compliance normalization, and reporting quality improvement that cannot be observed in the short run. As Albania's digitalization reform matures, the accumulation of richer and more granular data will create expanding opportunities for rigorous empirical investigation.

References

- Bhimani, A., & Willcocks, L. (2014). Digitisation, 'Big Data' and the transformation of accounting information. *Accounting and Business Research*, 44(4), 469–490.
- Cooper, L. A., Holderness, D. K., Sorensen, T. L., & Wood, D. A. (2019). Robotic process automation in public accounting. *Accounting Horizons*, 33(4), 15–35.
- Daoud, H., & Triki, M. (2013). Accounting information systems in an ERP environment and Tunisian firm performance. *International Journal of Digital Accounting Research*, 13, 1–35.
- Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50(2–3), 344–401.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160.
- Grabski, S. V., Leech, S. A., & Schmidt, P. J. (2011). A review of ERP research: A future agenda for accounting information systems. *Journal of Information Systems*, 25(1), 37–78.
- International Monetary Fund (IMF). (2021, 2022, 2023). Albania: Article IV Consultation Staff Reports. Washington, D.C.: IMF.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
- Kleven, H. J., Knudsen, M. B., Kreiner, C. T., Pedersen, S., & Saez, E. (2011). Unwilling or unable to cheat? Evidence from a tax audit experiment in Denmark. *Econometrica*, 79(3), 651–692.
- Musabelliu, B. (2019). Tax administration reform in Albania: Progress and challenges. *Albanian Journal of Economics and Business*, 5(1), 14–28.
- Naritomi, J. (2019). Consumers as tax auditors. *American Economic Review*, 109(9), 3031–3072.
- OECD. (2017). Technologies for better tax administration: A practical guide for revenue bodies. Paris: OECD Publishing.
- OECD. (2020). Tax administration 3.0: The digital transformation of tax administration. Paris: OECD Publishing.
- OECD/SIGMA. (2021). Albania public administration monitoring report. Paris: OECD/SIGMA.
- Pomeranz, D. (2015). No taxation without information: Deterrence and self-enforcement in the value added tax. *American Economic Review*, 105(8), 2539–2569.
- Republic of Albania. (2019). Law No. 87/2019 on Invoice and Turnover Monitoring System. Official Gazette of the Republic of Albania.
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144.
- World Bank. (2020). Albania enterprise survey. Washington, D.C.: World Bank Group.
- World Bank. (2022). Albania economic update: Strengthening fiscal resilience. Washington, D.C.: World Bank.
- Yin, R. K. (2014). Case study research: Design and methods (5th ed.). Thousand Oaks, CA: SAGE Publications.

CRYPTOCURRENCIES AND THEIR ACCOUNTING TREATMENT: CHALLENGES AND PERSPECTIVES

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Abstract

Over the past decade, digital currencies have moved from the margins of financial experimentation into the mainstream of global commerce and investment. Yet the professional accounting community has struggled to keep pace with this shift, partly because no dedicated reporting standard exists for such instruments, and partly because their economic characteristics resist easy categorisation within frameworks designed long before blockchain technology was conceived. Drawing on a qualitative and comparative analysis of existing pronouncements, professional guidance, and scholarly debate, this study probes the central question of how entities should account for holdings of digital currencies, and whether the solutions currently in use are genuinely fit for purpose. The paper finds that treating digital currencies as indefinite-lived intangible assets the most common approach under international standards produces a reporting outcome that is systematically biased toward understatement and is blind to upward value movements unless the optional revaluation approach is elected. This asymmetry, together with diverging practices across firms and borders, erodes the comparability that financial statements are meant to deliver. The paper closes by making a case for a purpose-built standard, tighter disclosure expectations, and a renewed push for cross-border regulatory alignment.

Keywords: Cryptocurrencies, Accounting Treatment, IFRS, Intangible Assets, Financial Reporting, IAS 38, Digital Assets, Fair Value Measurement

CHAPTER I: INTRODUCTION

1.1 Background and Context

When a pseudonymous developer published the Bitcoin white paper in late 2008, few observers anticipated that the concept of a peer-to-peer electronic payment system would eventually reshape conversations at central banks, audit committees, and accounting standard-setting bodies worldwide. Within fifteen years, the digital currency ecosystem had expanded to encompass thousands of distinct tokens, diverse consensus mechanisms, and a market capitalisation that, at various peaks, exceeded two trillion US dollars. Ethereum introduced programmable smart contracts; stablecoins attempted to anchor value to fiat currencies; decentralised finance protocols replicated lending, borrowing, and trading without traditional intermediaries. The common thread running through all of these developments is the challenge they pose to existing conceptual and regulatory frameworks.

What makes digital currencies particularly problematic from an accounting perspective is not their novelty per se, but the combination of characteristics they embody simultaneously: they are traded around the clock on liquid, global markets, yet they carry no contractual entitlement

to future cash flows; their prices can double or halve within weeks, yet they are neither consumed nor amortised like conventional assets; they exist only as entries on distributed ledgers, yet their economic substance is undeniable. No single existing asset category was designed with this profile in mind, and the profession's attempts to fit digital currencies into pre-existing boxes have generated more heat than light.

Corporate adoption has added urgency to the debate. Several high-profile technology and finance companies have allocated portions of their treasury reserves to Bitcoin, treating it as a hedge against monetary inflation. Payment processors have begun settling transactions in digital currencies. Central banks in multiple jurisdictions are developing their own digital tokens. In each of these contexts, the question of how to recognise, measure, and disclose digital currency positions is far from academic it has direct consequences for reported earnings, balance sheet leverage, and the information available to shareholders.

1.2 The Problem This Paper Addresses

The accounting profession currently lacks a coherent, globally agreed response to the challenge of digital currencies. Where explicit guidance is absent, preparers must exercise significant judgement, and different entities exercising that judgement in good faith arrive at materially different conclusions. One company may carry its digital currency holdings at historical cost, never marking them up even as prices soar; another may revalue them periodically through other comprehensive income; a third, if its core business involves trading such assets, may recognise all price movements through profit or loss. These divergent outcomes are not the result of different underlying economic positions they reflect the absence of standardised rules.

The resulting patchwork creates genuine problems for users of financial statements. Investors trying to assess and compare entities with similar digital currency exposures find themselves confronted with incomparable numbers. Auditors face novel verification challenges for which established procedures provide incomplete guidance. Regulators grapple with the question of whether current disclosures give a sufficiently clear picture of the risks embedded in digital currency positions. These are not peripheral concerns: as digital currencies become a more significant component of corporate balance sheets and payment infrastructure, the quality of their accounting treatment becomes correspondingly more important.

1.3 Aims and Research Questions

The central purpose of this paper is to examine how digital currencies are currently treated in financial statements, to identify the most significant shortcomings of existing approaches, and to set out the directions in which the accounting profession should move. Three questions give structure to the inquiry:

- In what ways do the defining attributes of digital currencies sit uneasily with the categories established by existing international accounting standards?
- Which specific features of the prevailing intangible asset model produce reporting outcomes that may mislead rather than inform?
- What reforms to standards, to professional guidance, or to disclosure requirements would most effectively close the gap between accounting outputs and economic reality?

By addressing these questions, the paper aims to contribute to the growing body of scholarly and professional work pushing for a dedicated, fit-for-purpose accounting standard for digital assets.

1.4 Why This Topic Matters

The stakes involved in getting digital currency accounting right extend well beyond technical compliance. For preparers, unclear standards translate into costly and time-consuming

professional judgement processes that may still not withstand regulatory or audit scrutiny. For investors, inconsistent treatment undermines the comparability that makes financial statements useful as inputs to valuation and capital allocation decisions. For auditors, the absence of clear measurement and disclosure benchmarks creates heightened engagement risk. For standard-setters and regulators, prolonged inaction risks embedding inconsistent practices so deeply that harmonisation becomes progressively more difficult. The collective interest in resolving this ambiguity is therefore substantial, and the present moment before digital currencies become even more pervasive is an opportune one for decisive action.

CHAPTER II: THEORETICAL FRAMEWORK AND PRIOR LITERATURE

2.1 Defining the Asset: What Digital Currencies Actually Are

Any serious attempt to determine the appropriate accounting treatment for digital currencies must begin with a clear-eyed examination of what they are and what they are not. At the most basic level, a digital currency is a unit of account maintained on a cryptographically secured distributed ledger. There is no issuer in the traditional sense, no central authority capable of redeeming the token for a fixed value, and no underlying pool of assets backing its worth. Value emerges instead from the collective judgement of market participants about the token's utility, scarcity, and future demand.

This architecture has several accounting-relevant consequences. First, digital currencies are not liabilities of any counterparty, which means they cannot be financial assets in the conventional sense of that term. Second, their value is determined entirely by supply and demand dynamics on open markets, which means it can shift dramatically over short intervals. Third, they exist only in digital form, which means they have no physical substance. Fourth, the rights associated with holding a digital currency are defined by software protocols rather than contracts or legislation, which creates uncertainty about their legal characterisation across jurisdictions. The combination of these features explains why existing accounting categories developed with physical goods, financial claims, and legal rights in mind sit so awkwardly around digital currencies.

Within the broader digital asset universe, meaningful distinctions exist. Payment tokens, whose primary purpose is to facilitate value transfer, have the closest resemblance to currency. Utility tokens grant holders access to specific platforms or services and behave more like prepayments. Security tokens represent fractional ownership of underlying assets and share characteristics with equity instruments. These distinctions matter for accounting because they suggest that a single treatment may not be appropriate for all digital assets, and that classification should be sensitive to the function and legal structure of each token.

2.2 The Classification Puzzle Under International Standards

The challenge of classifying digital currencies within the existing hierarchy of international accounting standards has attracted substantial scholarly attention. The four candidate categories most commonly discussed in the literature are: monetary assets equivalent to cash; financial instruments; inventories; and intangible assets. Each has advocates, and each has significant weaknesses.

The case for treating digital currencies as monetary assets rests on their use as a medium of exchange and unit of account. However, the standards governing cash and cash equivalents require that such assets be either currency held or demand deposits, and that they be convertible to a known cash amount with negligible risk of value change. Digital currencies satisfy neither criterion reliably. Their acceptance as payment is not universal, and their exchange rates against fiat currencies exhibit volatility that is categorically different from the minor fluctuations

associated with foreign currency deposits. Academic commentary has consistently rejected the monetary asset classification on these grounds (Procházka, 2018; Tan and Low, 2019).

Financial instrument status would offer attractive measurement options, since instruments held at fair value through the income statement would capture both gains and losses in reported earnings. However, a financial instrument is defined by reference to a contractual relationship: the holder must have a contractual right to receive cash or another financial asset. Because digital currencies arise from software protocols rather than contracts, they fall outside this definition. Attempts to argue otherwise have not gained traction with standard-setters or the majority of commentators.

Inventory treatment is available where an entity's primary activity involves buying and selling digital currencies as part of its normal business operations, in the same way that commodity dealers trade physical goods. For brokers and exchanges, this analogy holds reasonably well, and the commodity broker-dealer measurement exception allows such entities to carry their holdings at current market value with movements reflected in operating performance. However, extending inventory accounting to entities that hold digital currencies as long-term strategic or treasury assets distorts the picture by implying an intent to sell in the near term that may not exist.

This leaves intangible asset status as the dominant classification by default. Digital currencies are identifiable, separable assets with no physical form, and they do not meet the definitions of other categories. The intangible asset standard permits two measurement models: one that locks in the acquisition cost and only moves downward (through impairment), and one that permits upward as well as downward revaluations where an active market can be identified. The revaluation route provides more timely information but introduces volatility into equity through the revaluation reserve, and critically gains accumulated in that reserve are not subsequently transferred to profit or loss when the asset is sold, which limits their usefulness to income-focused analysts (IFRIC, 2019; EY, 2021).

2.3 The Regulatory Landscape: Standards, Interpretations, and Divergence

The most authoritative international guidance on digital currency accounting was issued in mid-2019, when the interpretations body of the international standard-setter concluded that holdings not forming part of a trading inventory should be treated as intangible assets. This determination was significant in confirming the dominant practice, but it also acknowledged limitations: the standard being applied was not designed for this purpose, and a more tailored solution might eventually be necessary. No comprehensive project has since been added to the active agenda of the international standard-setter, despite continued advocacy from preparers and professional bodies.

The divergence between international and US domestic standards became more pronounced in late 2023, when the US standard-setter finalised guidance requiring entities to measure qualifying digital asset holdings at current market value, with all movements both upward and downward flowing through the income statement. This represents a philosophically distinct approach: rather than applying a historical cost model with asymmetric impairment, it embraces the continuous repricing of liquid markets as the most relevant input for financial reporting. The practical effect is that US preparers and their international counterparts may now report the same economic position in ways that produce strikingly different income statements and balance sheets.

At the national level, regulatory responses have been fragmented. Some jurisdictions have adopted guidance broadly consistent with the international intangible asset approach; others have applied local GAAP analogies that differ in material ways; still others have issued no

specific guidance at all, leaving preparers entirely to their own devices. This fragmentation is particularly pronounced in economies where cryptocurrency adoption has grown rapidly but professional accounting infrastructure lags behind.

2.4 The Measurement Dilemma

Even once a classification is settled, measurement presents its own layer of complexity. Digital currencies with active secondary markets can, in principle, be valued with considerable precision at any moment the trading infrastructure that surrounds them generates continuous price data across multiple platforms. In this respect, their fair value is more directly observable than that of most unlisted equities or privately held real estate. The complication arises not from a lack of market data but from the nature of that data: prices differ across exchanges, intra-day swings can be extreme, and the markets themselves are susceptible to manipulation and liquidity crises that can cause short-term dislocations unrelated to fundamental value.

When the cost model is applied, the measurement issue manifests differently. An entity that acquired Bitcoin at a price significantly below its current trading level carries an asset whose reported value bears little relation to what it could recover in a sale. This conservatism may be familiar from other areas of accounting, but its magnitude in the context of digital currencies where appreciation can be several hundred percent over a holding period is unusual. Critics of the cost model argue that it fails the relevance criterion: information that diverges so dramatically from economic reality cannot plausibly assist investors in making well-informed decisions.

Impairment testing under the cost model introduces further complications. Because the triggering condition is a decline in value below carrying amount, entities must monitor prices continuously to identify potential impairment triggers. Once an impairment loss is recognised, it cannot be reversed even if prices subsequently recover a feature of the intangible asset standard that produces an asymmetric income statement trajectory for entities caught in volatile market cycles. Scholars examining the income statement effects of these rules have noted that entities holding digital currencies through a full market cycle may record large losses in downturns that are never offset by corresponding gains in recoveries, resulting in cumulative reported losses that do not reflect the net economic outcome of the holding (Cheung et al., 2020; Griffin and Shulman, 2020).

2.5 What Prior Research Has Established

Scholarly investigation of digital currency accounting has expanded considerably since the first Bitcoin transactions attracted academic notice around a decade ago. Early contributions focused on classification questions and the adequacy of existing frameworks; more recent work has moved toward empirical examination of what entities actually do in practice and what consequences flow from different choices.

Survey and archival research examining the financial statements of publicly listed companies with material digital currency holdings has revealed a landscape of considerable inconsistency. Even among entities operating in the same industry and jurisdiction, the choice of measurement model, the level of granularity in disclosures, and the extent to which digital currency positions are explicitly discussed in management commentary vary substantially. This variety is not attributable to genuine differences in the economic nature of the holdings: it reflects the latitude that stems from applying general-purpose standards to circumstances their drafters did not foresee (KPMG, 2021; Deloitte, 2022).

Research focusing on audit implications has drawn attention to the novel challenges that digital currency verification poses for assurance practitioners. Standard confirmation and physical

inspection procedures are not directly applicable. New tools including blockchain analytics platforms and custodian attestation services have emerged to fill the gap, but their use is not yet standardised, and questions about their reliability in adversarial contexts remain. The audit risk literature on digital currencies has also highlighted the elevated fraud potential associated with assets that can be transferred instantly and irreversibly to addresses outside the auditor's reach (Griffin and Shulman, 2020).

Studies with a comparative or international focus have documented the extent to which accounting outcomes for identical digital currency positions can differ depending on where an entity is headquartered and which standard-setting jurisdiction it reports under. This finding has regulatory implications: if equivalent economic exposures produce different reported numbers, the aggregated financial data used by regulators to monitor systemic risk may be unreliable. The point is especially salient in the context of stablecoins and digital currency derivatives, where the economic substance of positions may be more complex than a simple directional holding (PwC, 2022).

2.6 Where the Literature Points: Gaps and Unanswered Questions

Despite this growing body of work, several important dimensions of the problem remain underexplored. The practical implications of accounting ambiguity for entities in emerging and developing economies where digital currency adoption is often driven by specific local factors such as currency instability or limited banking access have received comparatively little attention. The literature on disclosure quality has documented deficiencies but has not yet established a clear empirical link between better disclosure and improved investor decision-making in the digital currency context. And the question of how a bespoke digital currency standard should be designed what measurement model it should adopt, how it should handle the heterogeneity of the digital asset universe, and how it should interact with existing standards for related instruments remains largely in the realm of normative advocacy rather than settled analysis. This paper seeks to contribute to that conversation.

CHAPTER III: METHODOLOGY AND ANALYSIS

3.1 Nature of the Inquiry

This study is positioned within the interpretivist tradition of accounting research. Rather than collecting new observational data through surveys, experiments, or archival retrieval, it works from existing documentary sources standards, interpretations, regulatory pronouncements, professional guidance, and peer-reviewed scholarship to construct an analytically grounded account of the problem and a normatively argued set of recommendations. This approach is well suited to research questions that are fundamentally concerned with the interpretation and critique of regulatory frameworks, rather than with the statistical testing of hypotheses about market behaviour.

The choice of a qualitative, document-based methodology reflects a considered judgement about the nature of the questions being asked. Whether a given accounting treatment faithfully represents the economics of a digital currency position, or whether the disclosure requirements attached to it give investors the information they need, are questions that call for careful conceptual reasoning rather than quantitative measurement. At the same time, the study draws on empirical findings from prior research where these illuminate the practical consequences of theoretical choices.

3.2 Sources Consulted

The documentary foundation of the study consists of four main categories of material. The first comprises the primary texts of international accounting standards, including those governing intangible assets, inventories, financial instruments, cash flows, and fair value measurement. Where interpretive guidance has been issued by the relevant interpretations body, this is treated as authoritative and analysed in detail. Equivalent guidance issued by the US standard-setter is also examined, particularly where it differs from the international approach.

The second category consists of reports, discussion papers, and staff analyses issued by standard-setting and regulatory bodies, including the international standard-setter's own project summaries, the Organisation for Economic Co-operation and Development's work on digital economy reporting, and central bank publications addressing the financial stability implications of digital currencies.

The third category is peer-reviewed academic literature retrieved from databases covering the major accounting and finance journals. Inclusion decisions were guided by relevance to the core questions of classification, measurement, and disclosure for digital currencies, with a preference for empirically grounded studies and conceptually rigorous theoretical contributions.

The fourth category consists of technical publications from major professional services firms, whose practical guidance documents and client-facing alerts provide insight into how the profession is interpreting ambiguous standards in real engagements. These sources are used primarily to triangulate findings from the standards and academic literature, rather than as primary authorities.

3.3 Analytical Approach

The analysis proceeds through two complementary modes. The first is a comparative evaluation of the different accounting treatments applicable to digital currencies, assessed against the qualitative characteristics that the international standard-setter has identified as defining useful financial information: relevance, faithful representation, comparability, verifiability, timeliness, and understandability. Each treatment is examined for the extent to which it produces information that meets these criteria, with particular attention to cases where different treatments, applied to the same economic position, yield materially different outcomes.

The second mode is a critical evaluation of the institutional and procedural factors that have contributed to the current state of ambiguity, including the gap between the pace of innovation in digital asset markets and the pace of standard-setting activity, the tensions between national and international regulatory priorities, and the commercial interests that may influence how preparers exercise judgement in the absence of explicit guidance. This critical perspective is informed by institutional and political economy approaches to accounting standard-setting, which emphasise that standards are not purely technical artefacts but are shaped by the interests and power of the actors involved in their creation.

3.4 Acknowledged Constraints

Several constraints on the study's scope and conclusions should be noted. The absence of primary data means that the findings cannot be generalised to the accounting practices of any specific population of entities; they represent conclusions about what the evidence suggests is likely or typical, rather than statistical descriptions of observed behaviour. The regulatory environment for digital currencies is changing rapidly, and some of the specific provisions

discussed in the paper may be overtaken by new guidance before or shortly after publication. The analysis focuses primarily on the framework established by international standards; a full comparative treatment of major GAAP systems around the world would require a study of considerably greater scope. Finally, the normative recommendations offered in the conclusions reflect the analytical judgements of the authors; they are intended to contribute to ongoing debate rather than to pre-empt it.

RESULTS AND DISCUSSION

4.1 What Entities Actually Do: The Landscape of Current Practice

A consistent picture emerges from the available evidence: the majority of entities holding digital currencies for investment or treasury purposes apply the intangible asset standard using the cost model. This means the asset is carried at the price paid to acquire it, adjusted downward if the market value falls below that level, but never adjusted upward to reflect appreciation. The practical implication is that a company that purchased Bitcoin at a relatively low price and holds it through a period of substantial appreciation will present a balance sheet figure that dramatically understates the economic value of its position.

A smaller subset of entities applies the revaluation model available under the same standard, which permits but does not require periodic upward adjustments to carrying value where an active market can be identified. Active markets for major digital currencies clearly exist: they operate continuously, involve substantial trading volumes, and generate transparent, publicly accessible price data. However, the revaluation model's interaction with the equity reserve mechanism limits its income statement usefulness. Gains recognised through revaluation flow into a separate component of equity rather than through reported profit, and they remain there even when the asset is eventually sold a feature that makes the income statement a poor guide to the true economic return generated by a digital currency holding over its life.

Entities whose primary activity involves buying and selling digital currencies exchanges, brokers, and certain fund managers typically adopt a different approach that allows current market value to flow through operating profit. This produces a more faithful and timely picture of performance for such entities, but it is conditional on the entity's business model meeting the criteria for this exception, and it cannot simply be borrowed by holding entities who prefer its income recognition outcomes.

The heterogeneity of practice is compounded by geographic variation. Entities in jurisdictions where national standard-setters have issued supplementary guidance may apply slightly different interpretations of the core international standard. Those in markets with no local guidance face a wider range of choices, resulting in even greater dispersion of outcomes. The aggregate effect is a financial reporting landscape in which similar economic positions are presented in ways that cannot be compared across entities without detailed knowledge of each entity's accounting policy choices.

4.2 The Core Challenges: A Structured Analysis

The challenges associated with digital currency accounting can be organised around four dimensions, each of which represents a distinct failure mode of the current framework.

The absence of a dedicated standard is the foundational problem from which most other difficulties flow. When a new type of asset emerges that does not fit neatly into any existing category, applying the closest available standard by analogy is a reasonable short-term response, but it becomes increasingly unsatisfactory as holdings grow in size and prevalence.

The analogical reasoning required deciding which characteristics of digital currencies resemble intangible assets most closely, which aspects of the intangible asset standard can be applied without modification, and where bespoke judgements are required consumes professional resources and generates outcomes whose variability undermines the credibility of the resulting financial statements.

Measurement under conditions of extreme volatility presents a second set of challenges that existing standards handle poorly. The cost model freezes value at acquisition, which becomes progressively less informative as prices diverge from cost. The revaluation model introduces periodic updates but creates complex interactions with the impairment rules and the equity reserve mechanism. Neither model was designed to handle assets that may trade at prices several times their acquisition cost within a single reporting period, or that may lose and subsequently recover large fractions of their value within the span of a standard annual reporting cycle. The mismatch between the static measurement intervals contemplated by the intangible asset standard and the continuous repricing of active digital currency markets is a structural limitation that no amount of careful application can fully overcome.

Inconsistency across entities and jurisdictions constitutes the third major challenge. Comparability the ability of users to identify and understand similarities and differences between reporting entities is a cornerstone of useful financial information. When entities with identical digital currency positions carry them at materially different values, report different income patterns, and disclose different amounts of information about risks and sensitivities, comparability is lost. This is not a minor or theoretical concern: investors and analysts who rely on financial statements to make cross-entity comparisons are confronted with incomparable data, forcing them to make their own adjustments before meaningful analysis is possible. The cognitive burden and estimation error this imposes are real costs of the current accounting ambiguity.

Disclosure deficiencies complete the picture. Even where the measurement outcome under a given model is reasonable, the quality of accompanying disclosures often falls short of what users need to assess the nature and magnitude of digital currency risks. Information routinely missing from financial statements includes: the specific tokens held and their individual characteristics; the exchanges or platforms on which they are valued; the custody and security arrangements protecting against loss or theft; the entity's sensitivity to price movements of different magnitudes; and the regulatory environment to which the holdings are subject in relevant jurisdictions. The existing intangible asset standard was not designed to elicit such disclosures, and few entities volunteer them in the absence of explicit requirements.

4.3 Consequences for the Users of Financial Statements

The inadequacies catalogued above have concrete consequences for different groups of stakeholders who depend on financial statements for information and assurance.

Investors and portfolio analysts face a two-part problem. First, the understatement of digital currency values under the cost model means that balance sheet analysis including leverage ratios, book value calculations, and net asset assessments may be materially misleading for entities with significant digital currency holdings. Second, the absence of standardised disclosures makes it difficult to assess the risk profile of such holdings or to compare that profile across entities. An investor trying to evaluate two companies with apparently similar business models but very different digital currency accounting policies may be comparing fundamentally incomparable numbers without realising it.

The challenges facing auditors are distinct but equally significant. Verifying the existence of digital assets requires engagement with blockchain verification techniques that go beyond the

standard toolkit for auditing physical or financial assets. Assessing the appropriateness of the accounting model selected and evaluating whether the criteria for the revaluation model or the commodity exception are genuinely met requires specialised knowledge that is unevenly distributed across the profession. Evaluating the completeness of digital currency holdings, particularly where assets are held across multiple wallets, custodians, or platforms, requires an understanding of wallet management practices and key management that many audit teams have had to develop from scratch. The profession has responded with new guidance and tools, but the pace of innovation in digital asset markets continues to outrun the development of standardised audit methodologies.

For those responsible for setting and enforcing reporting standards, the current situation represents an ongoing erosion of the consistency and comparability objectives that international standards were designed to achieve. The longer the gap between the economic significance of digital currencies and the quality of their accounting treatment persists, the more deeply inconsistent practices become embedded in organisational systems and professional norms. Standard-setters that have prioritised other projects over digital asset accounting are finding the opportunity cost of that decision increasingly difficult to justify as digital currencies move further into the mainstream of corporate finance.

4.4 Measuring Current Practice Against Foundational Accounting Principles

When current digital currency accounting practices are evaluated against the foundational principles that inform international standards, the results are instructive. The twin objectives of relevance and faithful representation the two most fundamental qualities of useful financial information are both systematically compromised by the cost model applied in the most common treatment. Relevance requires that information be capable of influencing the decisions of users; carrying amounts that diverge dramatically from market values do not plausibly meet this criterion for entities with material digital currency positions. Faithful representation requires that numbers in financial statements reflect the substance of the underlying economic reality; an impairment-only model that ignores upward value movements cannot be said to do this.

Comparability, as noted above, is severely impaired by the multiplicity of permissible treatments and the wide discretion afforded to preparers in applying them. Verifiability the quality that ensures independent observers would reach the same measurement conclusion is potentially achievable for digital currencies given the transparency of blockchain data, but only if entities use consistent and well-documented valuation methodologies, which current disclosure requirements do not compel them to do. Timeliness is an area where digital currencies might in principle excel, given the continuous availability of market price data, but this advantage is squandered when entities apply static cost models that are updated only at impairment triggers. Understandability requires both clear presentation and sufficient disclosure; as documented above, the latter is frequently deficient.

The deeper theoretical issue is that the intangible asset category was designed for assets whose value is derived from future economic benefits expected to flow from their use in operations patents that protect competitive advantages, customer relationships that generate recurring revenue, goodwill that reflects the premium paid for a business. Digital currencies do not generate value through use in this sense; they generate value through market appreciation and, in some use cases, through their function as a medium of exchange. Treating them as if they were software licences or broadcasting rights, subject to the same cost-and-impairment discipline, applies a conceptual framework that does not match the asset's economic logic. This mismatch is the root cause of most of the reporting problems documented in this paper.

CONCLUSIONS AND RECCOMANDATIONS

5.1 What the Analysis Establishes

The examination carried out in this paper leads to several conclusions that together paint a picture of an accounting framework struggling and largely failing to keep pace with the asset class it is being asked to address.

The dominant approach of treating digital currency holdings as indefinite-lived intangible assets under the cost model produces systematically biased reporting outcomes. It recognises losses but not gains; it produces carrying amounts that diverge dramatically from economic values in sustained bull markets; and it generates income statement patterns that do not faithfully reflect the returns generated by holding digital currencies across market cycles. These are not mere technical imperfections they have the potential to mislead investors and impair the quality of capital allocation decisions in a market segment that is growing rapidly in economic importance.

The heterogeneity of practice that flows from the absence of dedicated guidance further undermines the comparability objectives that international standards are designed to serve. Two entities with identical digital currency positions, reporting under the same international framework, may present those positions in ways so different as to be effectively incomparable. This outcome is directly contrary to the purpose of financial reporting standardisation.

The divergence between international and US domestic standards accelerated by the US decision to mandate fair value measurement for qualifying digital assets creates an additional layer of international incomparability and raises the possibility of regulatory arbitrage. Entities subject to both frameworks face the prospect of preparing reconciling disclosures for what is, economically, the same position.

The disclosure environment surrounding digital currency holdings is inadequate. Users of financial statements do not receive the information they need to assess the nature, scale, and risk profile of entities' digital currency exposures. This deficiency is structural it reflects the limitations of standards not designed for this asset class rather than incidental, and it will not be resolved without deliberate regulatory action.

5.2 What Should Be Done

The recommendations that flow from this analysis are directed at different actors in the regulatory and professional ecosystem.

The most consequential step that the international standard-setting body could take would be to place a digital assets project at the top of its active agenda, with the goal of producing a bespoke standard within a defined timeframe. Such a standard should adopt a presumption in favour of fair value measurement for digital assets traded on liquid markets, with movements flowing through reported profit rather than through a separate equity reserve. This would align international standards with the approach already adopted domestically in the United States and would produce reporting outcomes that more faithfully reflect the economics of digital currency holdings. The standard should also provide clear criteria for distinguishing business models that warrant inventory-style treatment from those where a holding model is more appropriate, and it should mandate detailed disclosures covering the types of assets held, the valuation methodologies applied, custody arrangements, and key risk sensitivities.

Preparers and their accounting policy-makers should, in the interim, resist the temptation to apply the cost model by default simply because it is familiar. Where an active market for the digital currency held can be demonstrated and for major tokens this criterion is plainly satisfied the revaluation model provides a more relevant and faithfully representative carrying amount.

Entities should also go beyond the minimum disclosure requirements of existing standards, providing users with the contextual information they need to understand the nature and risk implications of digital currency positions. Voluntary adoption of enhanced disclosure frameworks several of which have been proposed by professional bodies and industry groups would demonstrate a commitment to transparency that serves both users and, ultimately, the long-term reputation of the reporting entity.

Audit firms and professional standard-setters for assurance should prioritise the development and dissemination of standardised methodologies for verifying digital asset holdings, assessing the appropriateness of accounting model choices, and evaluating the adequacy of fair value determinations. Continuing professional education on digital currency accounting should be treated as a priority rather than a specialist elective, given how rapidly these assets are entering mainstream corporate balance sheets.

Regulatory bodies at both national and international levels should accelerate the work of establishing clear legal and regulatory classifications for different types of digital assets. The uncertainty that surrounds the legal characterisation of digital currencies in many jurisdictions directly impedes the development of clear accounting standards, since standard-setters are reluctant to adopt measurement approaches that may conflict with subsequently enacted legal frameworks. Reducing this regulatory uncertainty would create the conditions necessary for a more stable and consistent accounting treatment to emerge.

5.3 Avenues for Future Research

Several lines of inquiry would usefully extend and deepen the analysis presented in this paper. Empirical research examining the relationship between different accounting treatments and the quality of investor decision-making would help to ground normative recommendations in evidence about actual consequences. Longitudinal studies tracking changes in corporate digital currency disclosures over time would illuminate whether voluntary improvements are occurring at a pace sufficient to reduce information asymmetry, or whether regulatory intervention is necessary. Research focusing on the specific challenges faced by entities in emerging and developing economies where digital currency use is often driven by distinct local factors and professional accounting infrastructure may be less developed would address a gap in the current literature. Finally, as the FASB's fair value approach accumulates a track record, comparative analysis of reporting quality under fair value and cost-based approaches would provide valuable evidence for the international debate about which model best serves the needs of financial statement users.

References

- Cheung, A., Roca, E., & Su, J. J. (2020). Cryptocurrency market structure and the implications of extreme price volatility. *Applied Economics Letters*, 22(5), 378–383.
- Deloitte. (2022). Digital assets and the accounting challenge: A comparative review of IFRS and US GAAP treatment. Deloitte Touche Tohmatsu Limited.
- Ernst & Young. (2021). Reporting frameworks and digital assets: Applying IFRS to holders of crypto-assets. EY Global Limited.
- Financial Accounting Standards Board. (2023). ASU 2023-08: Accounting for and disclosure of crypto assets. FASB.
- Griffin, J. M., & Shulman, A. (2020). Assurance in the age of blockchain: Novel risks and emerging audit methodologies. *Journal of Accounting and Public Policy*, 39(4), 106779.
- International Accounting Standards Board. (2023). Work plan update: Digital assets and related financial instruments. IFRS Foundation.
- IFRS Interpretations Committee. (2019). Agenda decision Holdings of cryptocurrencies. IFRS Foundation.

- KPMG International. (2021). Crypto assets in corporate balance sheets: A framework for accounting and disclosure. KPMG.
- Laux, C., & Leuz, C. (2009). Fair value in crisis: Reassessing the debate about market-based measurement. *Accounting, Organizations and Society*, 34(6–7), 826–834.
- Organisation for Economic Co-operation and Development. (2020). Tax treatment of virtual currencies: Emerging issues and policy approaches. OECD Publishing.
- Procházka, D. (2018). Mapping the classification of digital currencies to IFRS categories: A critical assessment. *International Journal of Digital Accounting Research*, 18, 161–188.
- PricewaterhouseCoopers. (2022). Accounting for crypto and digital assets under IFRS: Updated technical guidance. PwC International.
- Tan, B. S., & Low, K. Y. (2019). Accounting for Bitcoin: What does economic substance tell us? *Australian Accounting Review*, 29(2), 220–229.
- Whitmore, A., & Leidner, D. E. (2019). Digital currencies in accounting education: Conceptual gaps and pedagogical responses. *Journal of Accounting Education*, 48, 28–38.

INTEGRATING SENSORY BRANDING AND MARKETING 3.0: EXPLORING THEIR JOINT INFLUENCE ON CUSTOMER LOYALTY THROUGH A CONCEPTUAL FRAMEWORK

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Abstract

Marketing 3.0 has shifted customer-brand relationships toward shared values, societal impact, and holistic experiences. Sensory marketing, unlike traditional methods, engages the senses to shape brand perception. Together, Marketing 3.0 and sensory branding create multi-sensory experiences that evoke emotions and lasting memories. However, research on how multisensory brand environments affect these experiences and customer loyalty remains limited. Most studies examine sensory branding and Marketing 3.0 separately, leaving their combined effects on engagement, loyalty, and brand equity underexplored. Addressing these gaps will improve understanding and inform more effective marketing strategies, especially in developing markets. This study presents a conceptual framework to examine these relationships and calls for further research in diverse cultural and social contexts, as recommended by Zha et al. (2024).

Keywords: Marketing, Management, Consumer Psychology Research, Corporate Branding

INTRODUCTION

The Marketing 3.0 era, often called the “values-driven” era, has brought more focus to customer-brand relationships, highlighting values, social impact, and complete brand experiences (Gómez-Suárez et al., 2017). Many researchers and professionals recognize that customers' sensory reactions shape how they buy and behave (Zha et al., 2024; Chen et al., 2021). Sensory marketing, which began as a way to study how feelings affect buying, now looks at how sensory cues influence brand experiences and customer actions (Rathee, Singh, & Rajain, 2024; Krishna, 2010). Unlike traditional marketing, sensory marketing uses the senses to connect with customers (Rathee, Singh, & Rajain, 2024).

Drawing on insights from neuroscience, psychology, and consumer behavior, sensory branding examines how sensory indicators shape perception and decision-making (Rathee, Singh, & Rajain, 2024). Antunes & Veríssimo (2024) state that positive customer reactions to multisensory stimuli accelerate decision-making and enhance the overall customer experience. Moreover, the existing literature in management, marketing, and psychology, is beginning to highlight the concept of “sensory brand experience” (SBE), which refers to the multisensory and comprehensive experiences that customers have with a brand, influencing directly and indirectly brand loyalty (Gao & Shen, 2024), and having a vital role in corporate visual identity and image (Zha et al., 2024).

Sensory engagement is essential in shaping customer perceptions and experiences during the buying process. Both Marketing 3.0 and sensory branding aim to create multisensory experiences that foster positive emotions and lasting memories. By leveraging sight, smell, sound, taste, and touch, brands can build strong emotional connections with customers. Sensory impressions have become vital for brand differentiation (Elder & Krishna, 2022; Zha et al., 2024), prompting many companies to adopt multisensory marketing (Chen et al., 2021). Integrating Marketing 3.0 with sensory branding effectively enhances customer loyalty by promoting emotional engagement, brand distinctiveness, and improved customer experiences.

Although some research has explored the link between sensory indicators and SBE, studies on the impact of multisensory brand environments remain limited (Zha et al., 2024; et al., 2022; Roggeveen et al., 2020). There is also a gap in understanding how multisensory marketing influences different aspects of consumer loyalty. Further research is needed to examine brand experience and its effects on key customer-brand relationship variables (Gao & Shen, 2024; Khan & Fatma, 2017; Zha et al., 2022). The literature does not sufficiently address how sensory branding and Marketing 3.0 work together to influence engagement, loyalty, and brand equity, as most studies consider them separately. (Zaman et al., 2024, pp. 90-113) Additionally, the interplay of specific sensory indicators is underexplored. Since these variables are context-dependent, more research should investigate how ethnic factors affect the effectiveness of sensory branding.

Filling these research gaps will help us better understand sensory branding and Marketing 3.0 in developing countries and lead to stronger marketing strategies. This study also answers Zha et al. (2024), who highlight the need for more research in different cultural, geographic, and social settings to make findings more widely useful.

LITERATURE REVIEW

Sensory Branding vs. Sensory Marketing

Sensory branding and sensory marketing are related yet distinct concepts in modern marketing. Sensory branding uses the senses to strengthen brand perception, recognition, and loyalty. Recent studies on the five main senses (Simha, 2020; Khandelwal et al., 2020) demonstrate how sensory experiences influence customer decisions. While sensory branding builds brand identity through sensory cues, sensory marketing uses these cues to shape customer experiences, influence purchasing, and foster emotional connections (Kulkarni & Kolli, 2023). Sensory marketing surpasses traditional marketing by requiring tailored strategies and in-depth market understanding (Pollák et al., 2021). Most research focuses on how exteroceptive senses: taste, touch, sound, smell, and sight—influence emotions, thoughts, and purchasing decisions (Antunes & Veríssimo, 2024). Recent studies also consider the visceral, vestibular, internal-state, and proprioceptive senses (Antunes & Veríssimo, 2024). Marketers increasingly recognize the importance of understanding how these senses interact to create value.

Sensory Brand Experience (SBE)

Sensory Brand Experience (SBE) examines how individuals perceive and respond to brand-related cues, shaping attitudes and behaviors. It encompasses not only sensory inputs but also the integration of external cues with personal thoughts and feelings (Roggeveen et al., 2020). Brakus et al. (2009) defined SBE across four dimensions: intellectual, emotional, sensory, and behavioral (Antunes & Veríssimo, 2024; Brakus et al., 2009). These cues relate to brand identity, environment, communication, and packaging (Antunes & Veríssimo, 2024). Consequently, brand experiences significantly influence customer satisfaction and loyalty (Antunes & Veríssimo, 2024; Brakus et al., 2009).

Another prominent definition of the SBE is proposed by Zha D. et al. (2021), to describe it as *"the internal processing of brand data from a brand setting through a harmonization of exteroceptive and interoceptive processes, culminating in brand sensations, brand affects, and subjective feeling states."* This definition demonstrates the dynamic interconnections between external sensory stimuli (exteroceptive processes) and internal interpretations influenced through individual experiences and preferences (interoceptive processes). As mentioned earlier, SBE encompasses the multisensory perceptions and affective reactions that arise from brand interactions. Sensory indicators include:

- **Visual:** Colors, shapes, logos, packaging design
- **Auditory:** Music, jingles, soundscapes
- **Olfactory:** Scents, aromas
- **Tactile:** Textures, materials, product interaction
- **Gustatory:** Taste, flavors

These cues can significantly shape brand perception, influencing consumer attitudes, purchase decisions, and loyalty. Research shows that sensory cues directly enhance SBE, resulting in improved customer experiences, stronger brand outcomes, and increased loyalty (Zha D. et al., 2021; Biswas et al., 2021; Roggeveen et al., 2020). However, the impact of multisensory brand environments on SBE remains underexplored (Zha et al., 2024; et al., 2022; Roggeveen et al., 2020).

Marketing 3.0

Marketing 3.0, which enhances customer–brand relationships (Gómez-Suárez et al., 2017), aligns closely with sensory branding. Integrating sensory cues with Marketing 3.0 enables brands to build deeper connections, strengthen positioning, and foster long-term loyalty (Khandelwal et al., 2020). Research on sensory marketing is expanding, especially regarding SBE and customer satisfaction (Antunes & Veríssimo, 2024). Gao & Shen (2024) found that sensory brand experiences influence brand loyalty both directly and indirectly, with gender and emotions also playing a role. Krupka (2023) noted that consistent sensory engagement is more effective than short-term intensity.

The synergy between sensory branding and Marketing 3.0 and their collective impact on customer-brand relationships

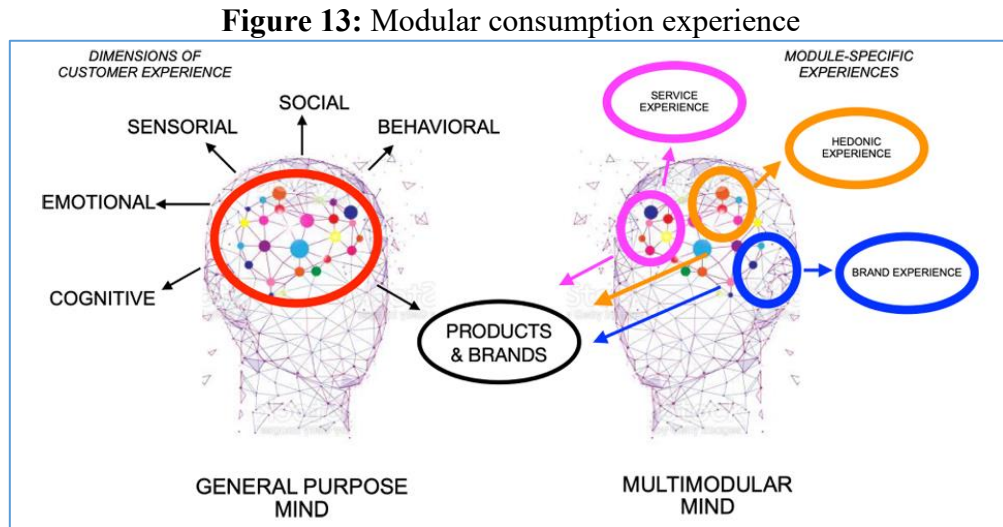
Sensory experiences are key drivers of customer experience. Marketing 3.0 recognizes consumers as complex individuals with diverse needs, beyond rational decision-making (Simha, 2020; Krishna et al., 2017). This perspective aligns with sensory branding, which leverages multisensory experiences to create positive emotions and lasting memories.

Sensory marketing centers sensory cues in its strategy, demonstrating that customers' multisensory experiences are shaped by their perceptions and interactions with brands. Engaging the senses helps brands differentiate themselves and build loyalty (Zha et al., 2024; Elder & Krishna, 2022). Neuroscience research indicates that sensory cues can trigger subconscious responses that influence future decisions and purchasing behavior (Krishna et al., 2017).

Current research does not fully address how sensory branding and Marketing 3.0 jointly enhance customer engagement, loyalty, and brand value, as most studies examine these areas separately. There is also limited focus on the interaction of specific sensory cues, though understanding these dynamics could improve sensory branding strategies.

Customer experience

Customer experience (CE) is now widely recognized as an all-encompassing framework for explaining and evaluating the effectiveness of a product or brand offering (Zha et al., 2023). Zha et al. (2023) have illustrated the dynamic and multifaceted nature of CE literature and introduced a novel CE framework as follows:



Source: Ha, D., Marvi, R., & Foroudi, P. (2023). Synthesizing the customer experience concept: A multimodularity approach. *Journal of Business Research*, pg.16

This modular perspective suggests that varied experiences influence the development of management and marketing strategies. When assessing the impact of sensory branding on customer satisfaction and loyalty, it is important to recognize that customers may have mixed experiences simultaneously. For example, a customer may enjoy the food but be disappointed by poor service. Therefore, a company’s success relies on effectively managing these different aspects and guiding customers through a complex purchasing process.

It is also important to note that the digital age has changed how people connect with brands. Rusnaini et al. (2024) found that customer experience—measured by emotional engagement, use of multiple channels, and personalization—has a strong effect on brand loyalty.

Customer Engagement

Customer engagement (CE) is considered an essential concept in marketing and management research as it relates to strategies that enhance the behavioral outcomes of brand loyalty, and the co-creation of value (Benegas & Zanfardini, 2023). The hierarchical and multidimensional construct of CE, viewed as a staged process that consumers undergo to achieve engagement with a given brand, has recently garnered increased attention in the marketing literature (Benegas & Zanfardini, 2023). Existing studies (e.g. Benegas & Zanfardini, 2023; Li et al., 2020; Harrigan, 2017) have demonstrated that CE is a predictor of loyalty.

Brand Loyalty

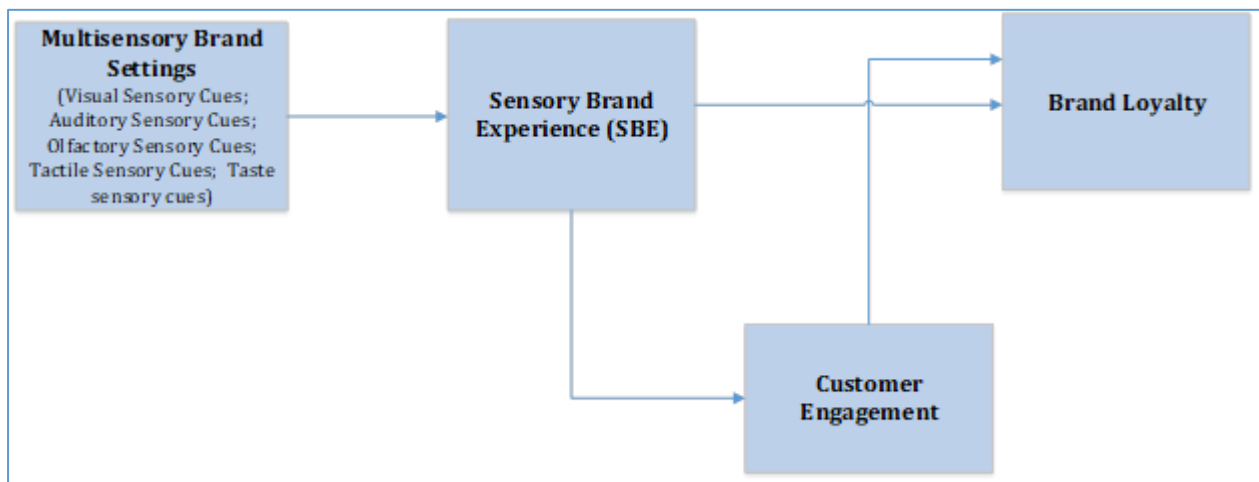
Brands that implement sensory branding effectively can build stronger emotional connections with customers, thereby increasing loyalty (Rusnaini et al., 2024). Sensory experiences foster lasting, positive brand associations that extend beyond product features. By designing multisensory experiences across product design, packaging, store environments, and digital

channels, brands can add value and differentiate themselves in a competitive market. Sensory elements and their presentation shape the overall customer experience and influence brand interactions.

Neuroscience research supports this approach, demonstrating that sensory cues can trigger subconscious emotional responses. These reactions are retained in the brain and influence future decisions. By appealing to the senses, brands can create stronger, more distinctive images and foster lasting loyalty (Rusnaini et al., 2024).

The conceptual framework

The study proposes a mediated-moderated framework intended to develop further the research on the relationship between Sensory Branding and Marketing 3.0, and their combined effect on Customer Loyalty. The proposed research framework is presented below:



Based on the literature review presented in the section 2, there are formulated the following prepositions:

1. Visual Sensory Cues have a significant impact on sensory brand experience (SBE).
2. Auditory Sensory Cues have a significant impact on sensory brand experience (SBE).
3. Olfactory Sensory Cues have a significant impact on sensory brand experience (SBE).
4. Tactile Sensory Cues have a significant impact on sensory brand experience (SBE).
5. Taste Sensory Cues have a significant impact on sensory brand experience (SBE).
6. SBE positively and significantly affects customer engagement (CE).
7. SBE positively and significantly affects brand loyalty (BL).
8. The relationship between SBE and BL is mediated by CE.

Discussion and findings

This research aims to develop a framework to guide future studies across diverse cultural, geographic, and social contexts, particularly in developing countries. The objective is to better understand how Sensory Branding and Marketing 3.0 jointly influence Customer Loyalty. Future research should explore effective applications of sensory branding in online and virtual environments as digital marketing continues to expand. Longitudinal studies are also needed to assess the long-term effects of these strategies on brand loyalty, customer relationships, and brand value.

References

- Antunes, I. F., & Veríssimo, J. M. (2024). A bibliometric review and content analysis of research trends in sensory marketing. *Cogent Business & Management*, 11(1). doi:10.1080/23311975.2024.2338879
- Antunes, I. F., & Veríssimo, J. M. (2024). A bibliometric review and content analysis of research trends in sensory marketing. *Cogent Business & Management*, 11(1).
- Benegas, J. Y., & Zanfardini, M. (2023). Customer engagement and loyalty: the moderating role of involvement. *European Journal of Management and Business Economics*. doi:10.1108/EJMBE-03-2022-0074
- Biswas, D., Labrecque, L. I., & Lehmann, D. R. (2021). Effects of Sequential Sensory Cues on Food Taste Perception: Cross-Modal Interplay Between Visual and Olfactory Stimuli. *Journal of Consumer Psychology*, 31(4), 746-764. doi:10.1002/jcpy.1231
- Brakus, J. J., Schmitt, B. H., & Zarantonello, L. (2009). Brand experience: What is it? How is it measured? Does it affect loyalty? *Journal of Marketing*, 52-68.
- Chen, J., Zhang, Y., Zhang, L., & Zou, Q. (2021). Research on the Impacts of Multisensory Marketing on Customer Loyalty Based on Data Analysis. *Journal of Physics: Conference Series* 1852 042083. doi:doi:10.1088/1742-6596/1852/4/042083
- Elder, R. S., & Krishna, A. (2022). A review of sensory imagery for consumer psychology. *Journal of Consumer Psychology*, 293-315.
- Gao, F., & Shen, Z. (2024). Sensory brand experience and brand loyalty: Mediators and gender differences. *Acta Psychologica* 244. doi:https://doi.org/10.1016/j.actpsy.2024.104191
- Gómez-Suárez, M., Martínez-Ruiz, M. P., & Martínez-Caraballo, N. (2017). Consumer-Brand Relationships under the Marketing 3.0 Paradigm: A Literature Review. *Frontiers in Psychology*, 8. doi:10.3389/fpsyg.2017.00252
- Harrigan, P. E. (2017). Customer engagement with tourism social media brands. *Tourism Management*, 59, 597-609. doi:10.1016/j.tourman.2016.09.015.
- Khan, I., & Fatma, M. (2017). Antecedents and outcomes of brand experience: An empirical study. *Journal of Brand Management*, 439-452.
- Khandelwal, M., Sharma, A., Indoria, V., & Jain, V. (2020). Sensory marketing: an innovative marketing strategy to sustain in emerging markets. *International Journal of Public Sector Performance Management (IJPSPM)*, 6(2).
- Khandelwal, M., Sharma, A., Indoria, V., & Jain, V. (2020). Sensory marketing: an innovative marketing strategy to sustain in emerging markets. *International Journal of Public Sector Performance Management (IJPSPM)*, 6(2).
- Krishna, A. (2010). *Sensory marketing: Research on the sensuality of products*. Routledge.
- Krishna, A., Cian, L., & Aydınoğlu, N. Z. (2017). Sensory Aspects of Package Design. *Journal of Retailing*, 93(1), 43-54.
- Krupka, Z. (2023). Exploring the Influence of Sensory Marketing on Brand Perception. *Naše gospodarstvo/Our Economy*, 69(3), 45-55. doi:10.2478/ngoe-2023-0017
- Kulkarni, P., & Kolli, H. (2023). Sensory Marketing Theory: How Sensorial Stimuli Influence Consumer Behavior and Subconscious Decision-Making. *Journal of Student Research*, 11(3). doi:10.47611/jsrhs.v11i3.3403
- Li, H., Xu, J., Fang, M., Tang, L., & Pan, Y. (2023). A Study and Analysis of the Relationship between Visual—Auditory Logos and Consumer Behavior. *Behavioral Sciences*, 13(7). doi:10.3390/bs13070613
- Li, M. W., Teng, H. Y., & Chen, C. Y. (2020). Unlocking the customer engagement-brand loyalty relationship in tourism social media: the roles of brand attachment and customer trust. *Journal of Hospitality and Tourism Management*, 184-192.
- Pollák, F., Soviar, J., & Vavrek, R. (2021). Sensory Marketing. IntechOpen. doi:10.5772/intechopen.100378
- Rathee, R., Singh, M., & Rajain, P. (2024). Mapping the Evolution of Sensory Marketing: A Bibliometric Analysis. *IMIB Journal of Innovation and Management*, 1-27. doi:10.1177/ijim.241263209
- Roggeveen, A., Grewal, D., & Schweiger, E. (2020). The DAST framework for retail atmospherics: The impact of in- and out-of-store retail journey touchpoints on the customer experience. *Journal of Retailing*, 96, 128-137.
- Rusnaini, S., Ariyanto, M., Jessika, S., Pratiwi, W., Marlina, E., & Hamirul. (2024). The Customer Experience Revolution: Building Brand Loyalty in the Age of Digital Disruption. *Enigma in Economics*, 2(1), 69-80. doi:10.61996/economy.v2i1.57

- Silaban, P. H., Chen, W.-K., Eunike, I. J., & Silalahi, A. D. (2023). Traditional restaurant managers' use of sensory marketing to maintain customer satisfaction: Findings from PLS-SEM and fsQCA. *Cogent Business & Management*, 10(1). doi:10.1080/23311975.2023.2196788
- Simha, S. (2020). Study of Sensory Marketing Strategies in Retailing Business. *Proceedings of the 3rd Asia Pacific Management Research Conference (APMRC 2019)*, 149. doi:10.2991/aebmr.k.200812.007
- Spence, C. (2022). Sensehacking the guest's multisensory hotel experience. *Frontiers in Psychology*, 13. doi:10.3389/fpsyg.2022.1014818
- Zha, D., Foroudi, P., Jin, Z., & Melewar, T. c. (2021). Making sense of sensory brand experience: Constructing an integrative framework for future research. *International Journal of Management Reviews*, 1-38.
- Zha, D., Foroudi, P., Jin, Z., & Melewar, T. C. (2022). Making sense of sensory brand experience: Constructing an integrative framework for future research. *International Journal of Management Reviews*, 130-167.
- Zha, D., Foroudi, P., Melewar, T. C., & Jin, Z. (2024). Examining the Impact of Sensory Brand Experience on Brand Loyalty. *Corporate Reputation Review*. doi:doi: 10.1057/s41299-023-00175-x
- Zha, D., Marvi, R., & Foroudi, P. (2023). Synthesizing the customer experience concept: A multimodularity approach. *Journal of Business Research*. doi:10.1016/j.jbusres.2023.114185

RECONCEPTUALIZING HUMAN RESOURCE MANAGEMENT FOR INDUSTRY 4.0: A STRATEGIC PERSPECTIVE ON DIGITAL TRANSFORMATION AND COMPETITIVE ADVANTAGE

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Abstract

The rapid emergence of Industry 4.0 has transformed the strategic architecture of modern organizations by introducing intelligent automation, cyber-physical systems, artificial intelligence, predictive analytics, and interconnected digital ecosystems into organizational and industrial processes. While scholarly and practical discourse surrounding Industry 4.0 has traditionally focused on technological infrastructure and operational efficiencies, contemporary research increasingly suggests that the true success of digital transformation initiatives lies not merely in technological acquisition but in the strategic alignment of organizational human capital with digital transformation objectives. This paper critically examines the role of strategic Human Resource Management (HRM) in facilitating the implementation of Industry 4.0 principles by integrating human capital theory, socio-technical systems theory, contingency theory, and dynamic capability theory into a multidimensional conceptual framework. The study argues that HRM must evolve beyond its traditional administrative orientation toward a strategic transformation partner capable of fostering digital competencies, leadership adaptability, organizational learning, and innovation-oriented cultures. Through an extensive theoretical analysis, the paper proposes a comprehensive strategic HRM framework for Industry 4.0 implementation, positioning HRM as a critical enabler of technological readiness, workforce agility, and sustainable competitive advantage. This research contributes to the academic literature by offering a theoretically integrated and practically applicable framework for understanding how HRM influences organizational readiness, transformation capability, and long-term digital sustainability.

Keywords: Industry 4.0; Strategic Human Resource Management; Dynamic Capabilities; Organizational Transformation; Innovation; Human Capital; Digital Leadership; Competitive Advantage

Introduction

The business environment of the twenty-first century is increasingly characterized by accelerated technological disruption, intensified globalization, and rapidly evolving competitive dynamics that collectively require organizations to demonstrate unprecedented

levels of adaptability, resilience, and strategic responsiveness. In this context, organizations are no longer competing solely on the basis of traditional operational efficiency or cost leadership; instead, sustainable competitive advantage increasingly depends on the ability to innovate, digitally transform, and continuously adapt internal capabilities in response to market volatility. One of the most influential transformational paradigms emerging from this environment is Industry 4.0, commonly referred to as the fourth industrial revolution, which represents a fundamental shift in the structure, management, and execution of business operations across industries worldwide.

Industry 4.0 encompasses the integration of advanced digital technologies—including cyber-physical systems, Internet of Things (IoT) technologies, artificial intelligence (AI), cloud computing, machine learning, robotics, blockchain, and big data analytics—into business and industrial ecosystems, thereby creating highly interconnected, intelligent, and autonomous operational networks. These technologies facilitate real-time communication between machines, systems, and stakeholders, allowing organizations to optimize decision-making processes, improve operational efficiency, and enhance predictive capabilities through data-driven insights. As a result, Industry 4.0 is fundamentally redefining the manner in which organizations create value, manage resources, engage with stakeholders, and sustain long-term competitive advantage in highly dynamic and uncertain market environments.

However, despite the significant technological emphasis associated with Industry 4.0, contemporary academic scholarship increasingly contends that the implementation of Industry 4.0 principles extends far beyond the mere adoption of advanced technological infrastructure. Rather than representing a purely technological or operational enhancement, Industry 4.0 should be understood as a multidimensional organizational transformation that affects not only production processes but also leadership structures, organizational culture, workforce capabilities, strategic decision-making frameworks, and management philosophies. In this regard, technological modernization alone is insufficient to ensure successful digital transformation outcomes. Empirical studies have shown that organizations frequently experience implementation challenges when technological investments are pursued without corresponding adaptation in organizational structures, employee competencies, and strategic leadership models. Such misalignment often leads to implementation failure, workforce resistance, operational inefficiencies, underutilization of technological systems, and ultimately poor return on investment.

Furthermore, the rapid pace of digital transformation associated with Industry 4.0 has created a growing need for organizations to reassess traditional organizational models and management systems. Hierarchical, rigid, and bureaucratic organizational structures that were once effective in stable industrial environments are increasingly proving inadequate in the face of digital disruption, where agility, flexibility, and cross-functional collaboration are essential. Consequently, organizations must cultivate adaptive internal systems capable of responding dynamically to technological evolution and environmental uncertainty. This transition requires a fundamental rethinking of how firms structure teams, manage knowledge, encourage innovation, and foster employee engagement within increasingly digitalized workplaces.

In this context, strategic Human Resource Management (HRM) has emerged as one of the most critical determinants of successful Industry 4.0 implementation. HRM is no longer confined to its traditional administrative and transactional responsibilities, such as payroll management, compliance monitoring, and recruitment administration. Instead, HRM has evolved into a strategic organizational function that plays a central role in shaping workforce strategy, driving organizational change, fostering innovation-oriented cultures, and ensuring that human capital capabilities align with broader technological and strategic transformation objectives. Strategic HRM now functions as a critical mechanism through which organizations develop the digital

competencies, leadership capabilities, and adaptive mindsets required to successfully navigate Industry 4.0 transitions.

More specifically, HRM contributes to Industry 4.0 implementation by facilitating strategic talent acquisition, workforce reskilling and upskilling, digital leadership development, organizational learning, employee empowerment, and change management processes. Through these mechanisms, HRM supports the development of dynamic organizational capabilities that enable firms to remain competitive in digitally transforming markets. Additionally, HRM plays an essential role in mitigating resistance to change by fostering employee engagement, supporting communication strategies, and promoting a culture of continuous learning and innovation. Without such strategic HRM involvement, organizations risk creating technological infrastructures that exceed workforce readiness, thereby undermining implementation effectiveness and strategic outcomes.

Given these developments, it is increasingly evident that the successful implementation of Industry 4.0 requires a strategic integration of technological advancement and human capital development. Organizations must recognize that digital transformation is not solely a technological initiative but a broader strategic transformation process requiring synchronized development across technological, structural, cultural, and human dimensions. Accordingly, this paper seeks to examine how strategic Human Resource Management can support the implementation of Industry 4.0 principles by enabling workforce adaptability, fostering organizational agility, and promoting sustainable innovation. In doing so, the study proposes a conceptual framework positioning HRM as a dynamic organizational capability that mediates the relationship between technological transformation and organizational performance, thereby contributing to both theoretical understanding and managerial practice in the field of Industry 4.0 implementation.

2.1 The Evolution of Industrial Revolutions

The development of industrial revolutions has historically shaped the progression of economic systems, organizational structures, and technological advancement. The first industrial revolution, which began in the late eighteenth century, introduced mechanization through steam power and significantly transformed manufacturing by replacing manual labor with machine-assisted production. This period marked the beginning of industrialized economies and laid the foundation for factory-based production systems. The second industrial revolution emerged in the late nineteenth and early twentieth centuries and was characterized by electrification, assembly-line production, and mass manufacturing, allowing organizations to significantly improve efficiency, scalability, and standardization of goods.

The third industrial revolution, often referred to as the digital revolution, began in the second half of the twentieth century and focused on the introduction of automation, information technology, and computer-based systems into production and business processes. During this period, organizations increasingly adopted programmable machines, software systems, and digital communication tools to improve productivity and operational control.

Building upon these developments, the fourth industrial revolution—Industry 4.0—represents a new stage of industrial and organizational evolution characterized by the integration of intelligent digital technologies into highly interconnected and self-optimizing ecosystems. This transformation includes the use of cyber-physical systems, artificial intelligence, cloud computing, big data analytics, robotics, and the Internet of Things (IoT). Unlike prior industrial revolutions, which primarily focused on enhancing operational productivity, Industry 4.0 fundamentally transforms business models, strategic planning frameworks, decision-making processes, and workforce structures. It differs from earlier industrial transformations due to its speed of implementation, technological complexity, global interconnectedness, and the scale of organizational disruption it creates.

2.2 Human Capital Theory

Human Capital Theory, originally developed by Becker (1964), suggests that investments in employee education, training, and capability development directly improve productivity and organizational performance. The theory emphasizes that employees should not merely be viewed as operational resources, but rather as valuable strategic assets whose knowledge, competencies, and expertise generate long-term competitive advantage.

Within Industry 4.0 environments, the relevance of Human Capital Theory becomes increasingly significant, as organizations require employees capable of operating in technologically advanced, digitally integrated, and highly dynamic environments. Traditional technical competencies alone are no longer sufficient; instead, firms increasingly demand digital literacy, analytical thinking, technological adaptability, and interdisciplinary collaboration skills. Human capital in the Industry 4.0 era therefore extends beyond technical expertise and includes the ability to continuously learn, innovate, and adapt to rapidly evolving technological systems. Consequently, organizations must invest strategically in employee upskilling and reskilling initiatives to maintain competitiveness and technological readiness.

2.3 Dynamic Capability Theory

Dynamic Capability Theory argues that organizations achieve and sustain long-term competitive advantage through their ability to integrate, reconfigure, and renew internal and external competencies in response to rapidly changing market environments (Teece et al., 1997). Unlike traditional resource-based perspectives, which focus on the possession of valuable resources, dynamic capability theory emphasizes the organizational ability to continuously adapt and transform these resources in response to environmental change.

In the context of Industry 4.0, this theory is highly relevant as organizations operate in environments characterized by rapid technological advancement, market volatility, and continuous innovation. HRM contributes significantly to dynamic capability development by supporting strategic talent acquisition, workforce planning, continuous learning, and leadership development. Through these practices, HRM enables firms to remain agile, responsive, and capable of adapting internal competencies to align with technological and strategic transformation demands.

2.4 Socio-Technical Systems Theory

Socio-Technical Systems Theory proposes that organizational effectiveness is maximized when technical systems and social systems are designed and optimized together rather than independently (Trist & Bamforth, 1951). The theory emphasizes that technological systems alone do not create performance improvements unless they are aligned with employee capabilities, organizational culture, communication structures, and social interactions.

This perspective is particularly relevant in Industry 4.0 implementation, where organizations often focus heavily on technological investment while underestimating the importance of workforce readiness and cultural adaptation. Research suggests that many digital transformation initiatives fail because firms prioritize technological implementation without sufficiently preparing employees for change or adapting organizational structures accordingly. Therefore, Industry 4.0 success requires organizations to align technological innovation with human and social dimensions, ensuring that employees possess both the competencies and motivation necessary to effectively operate within digitalized systems.

2.5 Contingency Theory

Contingency Theory suggests that there is no universally optimal organizational structure or management approach; rather, organizational effectiveness depends on the alignment between internal systems and external environmental conditions. According to this theory, strategies, leadership models, and organizational structures must be adapted based on contextual factors such as environmental uncertainty, technological complexity, and market dynamics.

Applied to Industry 4.0, Contingency Theory highlights that organizations must tailor HRM systems, leadership approaches, and operational frameworks according to the level of technological advancement and strategic objectives associated with their transformation efforts. As digital transformation introduces greater uncertainty, complexity, and market volatility, organizations require increasingly flexible and adaptive HRM systems capable of responding to changing strategic demands. This suggests that rigid traditional HRM models are inadequate in Industry 4.0 environments, and firms must instead adopt agile, responsive, and strategically aligned people management practices.

Methodology

This study employs a qualitative conceptual research methodology based on systematic literature synthesis and theoretical integration to examine the relationship between Human Resource Management (HRM) and the implementation of Industry 4.0 principles. Given the exploratory and theoretical nature of the research objective, a conceptual methodology was deemed most appropriate, as it allows for the development of a structured theoretical framework through the critical evaluation and synthesis of existing academic knowledge.

The research is grounded in an extensive review of peer-reviewed academic journals, strategic management literature, HRM frameworks, organizational theory publications, and digital transformation studies relevant to Industry 4.0 implementation. Academic sources were selected based on their relevance to the study's core themes, including digital transformation, strategic HRM, organizational adaptability, workforce development, and technological innovation. Priority was given to recent and highly cited literature in order to ensure both academic rigor and relevance to contemporary developments within the field.

A systematic literature synthesis approach was adopted to identify recurring theoretical concepts, emerging strategic themes, and critical challenges discussed across the existing body of literature. This process involved reviewing, categorizing, and comparing academic findings from multiple scholarly sources in order to identify consistent patterns regarding the strategic role of HRM in digital transformation environments. Particular attention was given to literature addressing organizational adaptability, leadership transformation, workforce capability development, and strategic alignment in technologically evolving business contexts.

Following the literature review process, a thematic analysis was conducted to group the identified findings into broader conceptual categories and recurring dimensions. These themes were then critically analyzed and interpreted through the lens of established theoretical frameworks, including Human Capital Theory, Dynamic Capability Theory, Socio-Technical Systems Theory, and Contingency Theory. By integrating these perspectives, the study develops a multidimensional understanding of how HRM can function as a strategic enabler of Industry 4.0 implementation.

The final stage of the methodology involved a theoretical synthesis of the identified themes and frameworks to construct an integrated conceptual model linking strategic HRM practices with Industry 4.0 readiness and implementation effectiveness. This approach enables the paper to move beyond descriptive literature review by proposing a structured framework that contributes both to academic theory and managerial practice. As a result, the methodology

provides a comprehensive basis for understanding the strategic mechanisms through which HRM influences organizational transformation in Industry 4.0 environments.

4. Strategic Challenges of HRM in Industry 4.0 Implementation

The successful implementation of Industry 4.0 technologies presents numerous strategic and organizational challenges for Human Resource Management. As firms increasingly integrate advanced digital systems into their operational processes, HRM faces growing pressure to ensure that workforce structures, leadership models, and organizational cultures evolve in alignment with technological transformation. Despite the strategic opportunities presented by Industry 4.0, several barriers continue to hinder effective implementation, particularly in relation to workforce readiness, organizational adaptability, and talent management.

4.1 Workforce Skill Gaps

One of the most critical barriers to Industry 4.0 implementation is the mismatch between workforce capabilities and technological requirements. The integration of advanced technologies such as artificial intelligence, big data analytics, and automation requires employees to possess new technical and digital competencies that extend beyond traditional job-related skills. However, many organizations face significant shortages of employees with expertise in digital systems, data analysis, and technological problem-solving. This growing skills gap limits the organization's ability to fully utilize digital technologies and may significantly delay transformation initiatives. As a result, organizations must place increased emphasis on workforce reskilling and capability development.

4.2 Resistance to Change

Resistance to organizational change remains one of the most frequently cited obstacles in digital transformation initiatives. Employees often demonstrate reluctance toward Industry 4.0 implementation due to uncertainty surrounding job security, fear of technological redundancy, and discomfort with changing established work routines. Additionally, employees may perceive automation and artificial intelligence as threats to their long-term professional relevance. Without proper communication, training, and change management strategies, resistance can undermine implementation efforts and reduce employee engagement during transformation processes.

4.3 Leadership Capability Deficiencies

The transition toward Industry 4.0 requires leaders who possess not only strategic management expertise but also digital literacy, adaptability, and transformational leadership competencies. However, many organizational leaders remain reliant on traditional management approaches that are incompatible with the agile and innovation-driven nature of digital environments. A lack of visionary leadership, technological understanding, and change management capability can hinder organizational readiness and create uncertainty during transformation initiatives. Therefore, leadership deficiencies often become a major barrier to strategic digital implementation.

4.4 Talent Retention Pressures

The increasing demand for digitally skilled employees has intensified competition within global labor markets, creating substantial retention challenges for organizations. As digital transformation accelerates, firms compete aggressively to attract and retain professionals with expertise in emerging technologies, analytics, and innovation management. High-performing employees possessing digital competencies are increasingly mobile and attracted by

organizations offering better development opportunities, compensation, and workplace flexibility. Consequently, retention of strategic talent has become a critical HRM priority.

4.5 Structural Rigidity

Traditional hierarchical organizational structures often lack the flexibility and responsiveness required for successful Industry 4.0 implementation. Bureaucratic systems, rigid reporting structures, and centralized decision-making models can significantly reduce organizational agility and slow down innovation processes. Since Industry 4.0 requires rapid decision-making, collaboration, and adaptability, firms operating within rigid structural frameworks often struggle to respond effectively to digital transformation demands.

5. Strategic HRM Mechanisms for Industry 4.0

To address the challenges associated with Industry 4.0 implementation, HRM must adopt strategic mechanisms that enhance workforce readiness, organizational adaptability, and leadership effectiveness. Strategic HRM practices are essential in ensuring that organizations can align human capital capabilities with technological advancement.

5.1 Strategic Workforce Planning

Organizations must proactively forecast future competency requirements and identify the skills necessary to support digital transformation objectives. Strategic workforce planning enables firms to assess talent gaps, anticipate future labor demands, and align recruitment and development strategies with evolving technological requirements. This forward-looking approach allows organizations to remain competitive and strategically prepared for future disruptions.

5.2 Digital Recruitment Transformation

Recruitment processes must evolve to reflect the digital competencies required in Industry 4.0 environments. AI-supported recruitment tools, predictive hiring analytics, and digital talent assessment systems allow organizations to identify candidates with the technical expertise and adaptability necessary for modern digital workplaces. These tools improve hiring efficiency while ensuring alignment between workforce competencies and strategic organizational needs.

5.3 Continuous Learning and Development

Given the speed at which technology evolves, organizations can no longer rely on traditional one-time training programs. Learning and development must transition toward continuous, embedded, and lifelong learning systems that encourage employees to consistently update their skills and knowledge. Upskilling and reskilling initiatives are therefore essential in maintaining workforce relevance and technological competence.

5.4 Agile Leadership Development

Leadership development programs must be redesigned to foster agility, adaptability, and strategic innovation capabilities. Modern leaders must be capable of managing uncertainty, supporting experimentation, and leading transformation initiatives in rapidly changing digital environments. Agile leadership development ensures that leaders possess the competencies necessary to guide teams effectively during periods of disruption.

5.5 Performance and Reward Innovation

Traditional performance evaluation systems are increasingly inadequate in innovation-driven environments. Organizations must redesign performance management and compensation

structures to reward creativity, collaboration, experimentation, and innovation. Incentive systems aligned with strategic transformation goals encourage employees to embrace change and contribute actively to digital innovation initiatives.

6. Proposed Strategic Framework

The framework developed in this study positions HRM as the mediating capability between technological infrastructure and organizational readiness, highlighting the strategic mechanisms through which HRM enables successful Industry 4.0 implementation. The framework consists of five interrelated dimensions that collectively support digital transformation and long-term organizational sustainability.

Workforce Digital Capability Development

Organizations must prioritize the development of digital competencies through continuous education, targeted training, and strategic reskilling initiatives. Workforce readiness is essential for ensuring employees can effectively operate within technologically advanced environments.

Adaptive Leadership and Governance

Leadership systems must evolve toward adaptive and transformational governance models that support agility, strategic flexibility, and innovation. Leaders must be equipped to manage digital disruption while guiding employees through organizational transformation.

Organizational Learning and Knowledge Sharing

Continuous learning cultures and knowledge-sharing mechanisms are essential for maintaining adaptability and supporting innovation. Organizations must foster environments where employees are encouraged to learn collaboratively and exchange expertise.

Innovation Culture and Employee Empowerment

Organizations must cultivate workplace cultures that encourage experimentation, creativity, and proactive problem-solving. Employee empowerment is critical for driving innovation and improving engagement during transformation initiatives.

Strategic Alignment and Change Management

HRM must ensure alignment between workforce strategies, technological implementation, and broader organizational goals. Effective change management practices are necessary to minimize resistance, improve adoption rates, and support successful transformation outcomes.

Results and Discussion

The findings of this study strongly suggest that organizations failing to integrate Human Resource Management into strategic Industry 4.0 planning may face substantial structural, operational, and strategic limitations that undermine the overall effectiveness of digital transformation initiatives. More specifically, the absence of HRM involvement in transformation planning often creates a disconnect between technological implementation and workforce preparedness, resulting in structural misalignment between digital infrastructure and organizational capability. This supports the broader argument within strategic management literature that technological advancement alone is insufficient to generate sustainable competitive advantage unless accompanied by complementary organizational and human capital development.

Furthermore, the findings indicate that inadequate HRM integration may significantly contribute to employee disengagement and resistance during periods of technological

transformation. This may be explained by the fact that employees often perceive digital transformation initiatives as disruptive, particularly when organizations fail to provide sufficient communication, training, and developmental support throughout the implementation process. In line with socio-technical perspectives, the neglect of employee-centered change management can generate uncertainty, fear of redundancy, and reduced psychological commitment to organizational objectives, thereby weakening transformation outcomes. Such findings reinforce the notion that digital transformation should not be viewed solely as a technological initiative, but rather as a broader socio-organizational process requiring active employee inclusion and cultural adaptation.

Additionally, the findings reveal that organizations lacking strategic HRM involvement may experience significant technological inefficiencies, particularly where advanced digital systems are introduced without parallel investment in workforce capability development. This suggests that the implementation of Industry 4.0 technologies without corresponding human capital enhancement may lead to underutilization of digital tools, inefficient adoption rates, and reduced return on technological investment. Such outcomes challenge the commonly held assumption that technological investment inherently improves organizational performance, highlighting instead that performance gains are contingent upon the organization's ability to strategically integrate technology with workforce competencies and internal processes.

From a strategic standpoint, the findings further suggest that organizations neglecting HRM integration may experience declining competitiveness in increasingly digitalized and innovation-driven markets. This is particularly significant given that competitive advantage within Industry 4.0 environments is increasingly determined not solely by access to technology, but by the organizational ability to continuously adapt, innovate, and strategically align internal resources with environmental demands. Firms unable to establish this alignment may face reduced organizational agility, slower innovation cycles, and limited responsiveness to market disruption, ultimately weakening long-term strategic positioning.

Taken together, these findings critically reinforce the argument that Human Resource Management should no longer be perceived as an administrative support function operating independently from strategic decision-making. Instead, HRM must be recognized as a central strategic enabler of digital transformation, acting as the mechanism through which organizations develop adaptive capabilities, facilitate organizational readiness, and ensure the effective translation of technological investment into sustainable strategic performance. Accordingly, the integration of HRM into Industry 4.0 planning is not merely beneficial, but essential for organizations seeking to maximize digital transformation success and maintain long-term competitiveness in technologically evolving business environments.

Conclusions

The implementation of Industry 4.0 extends far beyond the mere acquisition and deployment of advanced technological infrastructure; rather, it necessitates a profound and systemic transformation of organizational human capital strategies, managerial paradigms, and workforce development models. Although technological innovation constitutes the foundational infrastructure of Industry 4.0, the successful realization of its strategic and operational potential is fundamentally contingent upon the organization's ability to align technological capabilities with the competencies, adaptability, and strategic readiness of its human capital. Accordingly, digital transformation should not be conceptualized as an isolated technological initiative, but as a comprehensive organizational reconfiguration process requiring simultaneous adaptation across technological, structural, cultural, and human dimensions.

Within this context, effective Human Resource Management emerges as a critical strategic mechanism through which organizations can bridge the gap between technological potential and practical organizational realization. HRM serves as the primary enabler through which firms convert technological investments into tangible organizational outcomes by ensuring that employees possess the technical expertise, adaptive capabilities, and strategic competencies necessary to function effectively within digitally integrated and technologically sophisticated environments. Through the implementation of strategic workforce planning, targeted talent acquisition, continuous capability development, and leadership enhancement initiatives, HRM facilitates the cultivation of a workforce capable of responding proactively to technological disruption and sustaining performance in increasingly volatile and innovation-driven markets. Moreover, the strategic relevance of HRM extends beyond workforce preparedness to encompass the broader cultivation of organizational cultures conducive to innovation, adaptability, and continuous learning. As Industry 4.0 environments are inherently characterized by uncertainty, rapid technological evolution, and constant operational change, organizations must foster internal cultures that support experimentation, agility, collaboration, and proactive knowledge-sharing. In this regard, HRM assumes a central role in embedding these cultural characteristics through the design of performance systems, incentive structures, leadership models, and employee engagement strategies that reinforce innovation-oriented behavior and strategic flexibility.

Failure to strategically integrate HRM into Industry 4.0 initiatives may significantly undermine transformation outcomes, as organizations risk implementing technologically advanced systems within environments that lack the necessary workforce readiness, cultural support, and leadership capacity required for effective adoption. Under such circumstances, technological assets may remain underutilized, implementation resistance may intensify, and anticipated performance improvements may fail to materialize, thereby reducing both operational efficiency and return on technological investment. These findings challenge reductionist perspectives that frame Industry 4.0 primarily as a technological undertaking, instead reinforcing the view that digital transformation success is inherently dependent upon the strategic synchronization of technological advancement and human capital development.

Consequently, this study argues that successful Industry 4.0 implementation requires organizations to adopt an integrated and strategically holistic approach in which technological modernization and human capital transformation progress concurrently. Within this framework, HRM must no longer be perceived as a peripheral administrative function, but rather as a strategic organizational capability central to enabling digital transformation, facilitating adaptive capacity, and sustaining long-term competitive advantage in increasingly complex and technologically dynamic business environments.

References

- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. University of Chicago Press.
- Burns, T., & Stalker, G. M. (1961). *The management of innovation*. Tavistock Publications.
- Deloitte. (2022). *Industry 4.0 and workforce transformation: Preparing the workforce for the future of manufacturing*. Deloitte Insights.
- Harvard Business Review. (2021). *Leading digital transformation: Driving innovation in the digital age*. Harvard Business Publishing.
- McKinsey & Company. (2021). *The future of work in Industry 4.0: Workforce transformation in a digital era*. McKinsey Global Institute.
- Schwab, K. (2016). *The fourth industrial revolution*. World Economic Forum.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)

- Trist, E. L., & Bamforth, K. W. (1951). Some social and psychological consequences of the longwall method of coal-getting. *Human Relations*, 4(1), 3–38. <https://doi.org/10.1177/001872675100400101>
- World Economic Forum. (2020). *The future of jobs report 2020*. World Economic Forum. <https://www.weforum.org/reports/the-future-of-jobs-report-2020>

TOURISM WITH DIGNITY CONTRIBUTION (TKD): AN ALTERNATIVE TO POVERTY TOURISM

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Abstract

A growing phenomenon, slum tourism, has emerged in the global tourism industry, reflecting the growing demand for authentic experiences and social awareness. The existing literature highlights a strong tension between the potential of this phenomenon for economic development and the numerous ethical criticisms related to the exploitation, representation and violation of the dignity of marginalized communities. In this context, this study aims to contribute to the debate by proposing the “Dignified Contribution Tourism” (DCT) model as a conceptual and practical alternative to traditional forms of poverty tourism. Based on a combined methodological approach, the study integrates the literature analysis with an alternative theoretical model that explores the relationship between authentic tourist experience, emotional engagement, ethical awareness and willingness to contribute financially to the well-being of the community. The TKD model aims to transform the relationship between the tourist and the host community from a passive observational relationship to an active collaborative relationship, where the economic contribution is structured, transparent and oriented towards social impact.

The study contributes to the literature by offering a new theoretical model, which addresses the main limitations of poverty tourism and promotes a more just, responsible and sustainable form of tourism. In conclusion, it is argued that the TKD model represents a feasible approach for transforming tourism into an instrument of social development, while preserving dignity and empowering local communities.

Keywords: Tourism with Dignified Contribution, Poverty Tourism, Ethics, Sustainable Tourism, Community, Social Development

1.INTRODUCTION

In recent decades, the global tourism industry has undergone a significant transformation, moving from a traditional focus on mass destinations towards more authentic and personalized experiences. In this context, poverty tourism has emerged as a complex and often contradictory phenomenon, where tourists seek to experience social realities that differ significantly from their daily lives. A deep understanding of this study cannot be achieved without familiarizing themselves with the academic debate, that is, with the theories for and against, surrounding this selected topic. The study will begin with a brief description of what slum tourism is and the main arguments against and in favor of this trend.

This general perspective will be followed by a more detailed discussion regarding the Brazilian favelas and communities in extreme urban conditions in Manila, as they are the object of the study. This new form of tourism, known as slum tourism, consists of transforming Third World slums and their inhabitants into a new product, a service that is sought after by tourists who show interest in them. In this process, the suburbs are included in the global tourism industry

as another exotic phenomenon (Cejas, M. I. ,2006). It is currently present in several countries such as: India, South Africa and Brazil.

This phenomenon is particularly evident in urban areas of developing countries, where informality and socio-economic inequalities are pronounced. In cities such as Rio de Janeiro, favelas have been transformed into tourist destinations where structured tours are organized, while in Manila, communities living in extreme conditions are included in alternative tourism itineraries. Favela tourism is therefore part of a global phenomenon that has reached unexpected proportions and that can be used as a basis for broader discussions, such as the policies of commodification of places, cultures and people in a context of globalization and inequality.

However, the growth of this phenomenon has stimulated strong academic and ethical debates. On the one hand, poverty tourism is argued to raise global awareness and contribute to local economic development. On the other hand, critics point out that it can transform poverty into a form of spectacle, violating the dignity of individuals and creating unequal relations between tourists and host communities.

In this context, the aim of this paper is to analyze poverty tourism as a multidimensional phenomenon, exploring the tension between tourist curiosity, ethical responsibility and the potential for sustainable development. According to all the issues discussed here, we are dealing with a rather complex social practice that transcends labels and requires serious investigation.

2.LITERATURE REVIEW

Poverty tourism is defined as organized visits to poor urban areas, where tourists have the opportunity to observe and experience the living conditions of marginalized communities (Frenzel et al., 2012). This phenomenon has historical roots related to visits to poor areas in European industrial cities during the 19th century, but in its modern form it has developed mainly in developing countries. Since then, tourism within the favelas has become a growing activity and can take different forms (Kuiphuis, 2010). In fact, according to Souza (2006) for more than a century, poor neighborhoods have existed in Rio de Janeiro and represent the worst and the best that the city has to offer. Although these neighborhoods are controlled by gangs, they are also the scene of some of the richest cultural manifestations in Brazil. As Williams Claire (2003) states, “What was once the most shameful part of the city of Rio de Janeiro, which governments tried so hard to keep away from citizens, and especially from the sight of foreigners, has now crossed all possible barriers and represents Brazil outside its borders, where the favela is undoubtedly becoming the dominant cultural image of Brazil internationally and this represents its triumphant revenge”. Tourism in favelas has been researched by Freire-Medeiros. This researcher is one of the pioneers in the study of favelas as a tourist attraction. In his 2009 book “Tem Gringo na Lage: Produção, circulação e consumo da favela turística”, he gives a good overview of the complex phenomenon of the combination of favela and tourism. Medeiros helps to demystify this phenomenon and makes a critical analysis of poverty and tourism. To critically analyze favela tourism, it presents two dimensions where on the one hand, tourism in poor areas is not the ideal solution to the socio-economic problems faced by a community and on the other hand, the assumption that the transformation of poverty into a commodity for tourist purposes is an immoral activity. According to Fabian Frenzel, poverty tourism should be understood as a practice that combines economic, cultural and political dimensions, reflecting unequal global relations. The study examines how the favela was

transformed from a social problem into a tourist attraction by analyzing the favela at three spatial levels. The first level deals with its consolidation as a social, geographical space and its manifestation as an international sociological category. The second level deals with the representations of the favela in the public where it is seen in two main positions in the representation focused on the problem (favela) and the idealized representation in the community. The third level provides an overview of the use of the favela as a tourist space. The results show that “favela tourism” in Rio de Janeiro has reached dimensions of mass tourism and is characterized by an almost exclusive dominance of external agencies, but with little participation of the local population, as well as little interaction between locals and tourists, who are in search of the “authentic” phenomenon that locals offer.

2.1 Critical approach to slum tourism

Poverty tourism, or slum tourism, is analyzed in the literature as a complex practice that combines social awareness with strong ethical and structural risks. According to Frenzel, Koens and Steinbrink (2012), tourism in poor areas often creates an “economy of spectacle”, where poverty is turned into a tourist spectacle. The authors emphasize that, although it may bring limited local income, it often does not change the structural conditions of poverty and can reproduce existing inequalities. From a critical ethical perspective, Mowforth and Munt (2016) argue that many forms of tourism in developing countries reflect unequal power relations between tourists from rich countries and host communities, turning poverty into a consumer product. Scheyvens (2002) adds that the impact of tourism on local communities depends on the level of their empowerment. In the case of poverty tourism, communities often play a passive role, not controlling the narrative or economic benefits, which leads to poor or incalculable development. Social critics, Dovey and King (2012) in their studies of tourism in favelas in Brazil, point out that these practices can contribute to the stigmatization of poor spaces, presenting them as other exotic places to be visited by tourists. Similarly, Butcher (2007) criticizes the idea of tourism as a means of moral development, arguing that many forms of ethical or social tourism often overestimate the real impact on poverty reduction. The literature criticizing tourism in slums neglects this rich history.

The most critical literature is authored by Nisbett, M. (2017) who argues that poverty is transformed into a tourist product, communities are reduced to objects of observation, and the benefits are often not distributed equitably. She emphasizes that “the potential of slum tours as a form of international development is limited, as they allow wealthy middle-class Westerners to feel inspired, morally uplifted, but the change is negligible and without a real contribution to improving conditions”. The ethical dimension is central to the analysis of this phenomenon. Researchers emphasize that the problem lies not only in the existence of poverty tourism, but in the way it is managed. The main issues relate to the privacy of residents, consent to participate, fair representation of the community and the distribution of income. In this context, new approaches are being developed such as community-based tourism, which aim to shift the focus from observation to participation and collaboration. In conclusion, it is clear that the social dimension of favela tourism can be closely linked to local participation. Both concepts can open an avenue for more philosophical studies about the role of tourism and its contribution to society. In conclusion, the critical approach suggests that poverty tourism commodifies poverty, reproduces power inequalities, has limited developmental impact, and calls for more participatory and ethical models of community tourism.

2.2 Positive approach: awareness and development

As supporters of slum tourism, we can mention Scheyvens (2001) who defends the idea that the exclusion of poor areas such as slums from the tourist circuit of a city is reinforcing the social and economic isolation of such areas. Moreover, "if the goal is a more integrated society and economy, tourism should be promoted within previously excluded areas" (Goudie et al 1999 in Scheyvens,2001). In general, those who defend slum tourism use economic development; improving community self-esteem and increasing tourist awareness as their main arguments. Some literature argues that poverty tourism can have positive effects by raising awareness of global inequalities, generating income for local communities and stimulating investment and infrastructural development in these areas.

Various studies suggest that in cases such as the favelas in Rio de Janeiro, tourism has created employment opportunities for local residents as tour guides and small entrepreneurs (Freire-Medeiros, 2009). As Medeiros mentioned, increasing community self-esteem can be one of the best contributions of the link between tourism and vulnerable areas. By making a more in-depth analysis of the tourism potential of favelas, self-esteem can be a start. In addition, they believe that participation is a vital part of empowerment, as taking a role in the decision-making process improves self-esteem, confidence, knowledge and skills. Since this study aims to explore the possibility of social transformation through tourism, participation is an essential element and can be an important tool to achieve such a goal. Koven (2004) shows that pioneering tours of the slums in Victorian London were as much about entertainment as they were about social reform. Seaton (2012) claims that curiosity about poor neighborhoods preceded social philanthropy.

2.3 Case studies: Brazil and the Philippines

In Brazil, favelas such as Rocinha have become popular tourist destinations, with organized tours offering an authentic urban experience, according to the author (Freire-Medeiros, B. 2009). He discusses the development of the favela into a tourist attraction. Rocinha, Rio de Janeiro, is the paradigmatic "tourist favela", with tours taking place regularly since the early 1990s and with three thousand tourists visiting the site every month. The development of the favela into a tourist destination is seen as part of the so-called reality tour phenomenon and the global circulation of the favela as a trademark. Nowadays, the most diverse travel experiences are organized under the label of "alternative tourism" (Holloway, 1995; Taylor, 2000; Richards, 2007). Here I focus on a specific segment of alternative tourism for which the term reality tour has been coined, whose distinctive identity is based on the supposedly authentic, interactive and extreme character of the type of encounter it promotes. As MacCannel (1992) and Stone (2006) have argued among others, travel to places associated with suffering is not a new phenomenon and goes back as far as the first religious pilgrimages. The curiosity to see the poor is not new according to (Koven, 2004) "slum dwelling was a widespread activity among the Victorian elite". Poverty is now being consumed as a tourist commodity with a monetary value agreed upon by promoters and consumers. Such tourism practices have at least two arguments in their favor, their potential to boost the local economy and the self-esteem of residents, and the opportunity they offer tourists to combine solidarity and leisure in one package. In the Philippines, especially in Manila, tourism has developed in areas where residents live in extreme conditions, including improvised spaces such as tunnels and sewers, raising serious ethical concerns. These cases illustrate the tension between the potential for development and the risk of exploitation. The literature suggests that the future of this

phenomenon lies in its transformation towards more ethical models, where the local community has an active role and directly benefits from the tourist activity.

3. RESEARCH METHODOLOGY

Research methodology includes a number of activities that need to be carried out. According to Howell Kerry E. (2012), methodology describes “the overall research strategy that determines how the research is conducted”. For this reason, one of the first steps in planning a research process is “a literature review, which involves searching all sources of information to track the latest knowledge, assessing its relevance to our topic, quality, contradictions and gaps” (Walliman, N. 2011). This study is based on a qualitative and conceptual approach, aiming at the critical analysis of the phenomenon of poverty tourism and the development of an alternative theoretical model. Instead of empirical testing, the focus is placed on interpreting the existing literature, identifying theoretical gaps, and building a new conceptual model. The study uses a literature review that includes academic sources on poverty tourism, ethics, and sustainable tourism, comparing positive and critical approaches, and identifying limitations in the literature. According to the literature, the analytical-critical approach emphasizes the assessment of the ethical dimensions of the phenomenon, the analysis of the tourist-community relationship, and highlights the problems of representation and distribution of benefits. Based on the findings of the literature, the study proposes the model: “Dignified Contribution Tourism (DCT)”. This model is built as a theoretical framework that aims to address the limitations of poverty tourism by shifting the focus from observation to participation, integrating the ethical component into the tourist experience, and structuring the economic contribution to the community. Model structure (theoretical framework). The TKD model is based on a conceptual flow. The figure below presents the conceptual model of “Tourism with Dignity Contribution” (TKD), illustrating the flow from authentic experience to community well-being.

Figure 1(Dignified Contribution Tourism (DCT) Model)



Source: Author

This logical chain explains how tourism experience can be transformed into social impact. To demonstrate the applicability of the model, the study presents an illustrative case in Elbasan, where the model can be implemented through authentic tourism experiences (homestays, local activities), community involvement in management, creation of a community fund, transparent distribution of revenues. This case does not constitute an empirical analysis, but serves as a practical example for the operationalization of the model. The methodological limitations of the study relate to the lack of empirical data, a strong reliance on the interpretation of the literature, and the need to apply and measure the validity of the model in future studies. Despite the lack of empirical analysis, this approach contributes to the theoretical development of the

field, proposes an innovative and applicable model, and creates a basis for future empirical research.

4.RESULTS AND DISCUSSION

The literature review on poverty tourism shows a clear division between approaches that emphasize economic and awareness-raising potential and critical approaches that focus on ethical problems and exploitation. However, there is a significant gap. The lack of practical models that operationalize an ethical form of this tourism, while guaranteeing both dignity and real community benefit. Most studies analyzing the phenomenon criticize or defend it, but few offer concrete applicable models, especially in contexts like Albania. Based on this gap, this study proposes a new model, the “Dignified Contribution Tourism” (DCT) model, as a conceptual and practical alternative to traditional slum tourism. Unlike conventional approaches that often reduce marginalized communities to objects of observation, the DCT model emphasizes structured contribution, ethical engagement, and community participation. This model aims to transform the tourist from observer to contributor and the community from object to active partner. The main principles on which the model is built are: Community dignity is a priority, contribution is structured, not spontaneous, benefits are distributed transparently, and the experience is authentic, not staged. This model can be presented as a logical flow:

1. Authentic Experience (staying in homes with local families, rural/cultural activity).
2. Emotional Engagement (authentic storytelling and history).
3. Ethical Awareness (voluntary participation, privacy and respect, prevention of the appearance of poverty).
4. Willingness to Contribute to Community Well-being, (% of the tourist package goes to the family, a community fund is created, concrete projects are financed).

Authentic experience creates emotional connections, emotional connection increases ethical awareness, ethical awareness increases willingness to contribute and contribution translates into well-being for the community. The operationalization of the model in Elbasan is concretely applied in suburban urban areas in surrounding villages, such as Shpati and Labinoti. Practical elements such as tourist experience are related to staying in homes with local families. In conclusion, this model emphasizes that authentic experience positively affects the ethical awareness of tourists, ethical awareness increases willingness to contribute financially, transparency increases the trust and satisfaction of tourists and community involvement affects local well-being. The connection with existing literature highlights that the model responds to Melissa Nisbett's criticisms (ethics and exploitation) and further develops Fabian Frenzel's approach, the socio-economic dimension related to the concept of community-based tourism, but expands it with the contribution component. Applied to the context of Elbasan, this model shows how tourism can be redesigned to promote both economic benefits and social dignity, thus addressing the main criticisms identified in the existing literature.

4.1Contribution of the study

Given that from a transmodern perspective, tourism can be seen as a platform for dialogue and social transformation, the aim of this exploratory study was to expose the social dimension of tourism in favelas and investigate its potential contribution in stimulating social transformation. Most studies analyze the phenomenon, criticize or defend it but few offer concrete applicable models, especially in contexts like Albania. Based on this gap, this study proposed a new

model, which contributes at three levels in theoretical contribution where it introduces the TKD (Tourism with Dignity Contribution) model as an alternative to “tourism in poor areas”, integrates ethics with economic development in empirical contribution (potential) thus offering an applicable case study in Albania and practical/political contribution by providing an applicable model for public policies, NGOs and the tourism sector.

Given the local acceptance and control over the development of tourism activities, this study provides indications that tourism in these areas can pave the way for improving the social representation of residents. Therefore, although it must be acknowledged that the complex issue of tourism in poverty-stricken areas deserves critical academic debate, this study shows evidence that tourism can make positive social contributions in poor areas. The results of this research contribute to shedding new light on the topic of poverty tourism and to a better understanding of the complexity of this tourism as an object of study.

5.CONCLUSION

This study analyzed poverty tourism as a complex phenomenon at the intersection of tourist curiosity, ethics and socio-economic development, highlighting the tension between the potential for economic gain and the risk of exploitation of marginalized communities. The literature review and empirical analysis show that, while poverty tourism can contribute to raising awareness and generating income, it is often associated with significant ethical issues, particularly in relation to dignity, representation and the distribution of benefits. In this context, this study proposes the DTC (Dignified Contribution Tourism) model as an innovative and ethical alternative to traditional forms of “poverty tourism”. Empirical results suggest that authentic tourism experiences positively influence the emotional engagement and ethical awareness of tourists, increasing their willingness to contribute in a structured way to the development of host communities. The application of this model in Elbasan demonstrates that it is possible to build a form of tourism that generates direct income for families, supports community projects, and preserves local dignity and identity. The TKD model contributes to the transformation of the tourist-community relationship from a passive and often unequal relationship to one of cooperation and mutual influence.

6. RECOMMENDATIONS

For policymakers at the local and national levels, the primary focus is on drafting a regulatory framework for ethical and social tourism, integrating the TKD model into tourism development strategies in Albania, providing financial and technical support to local communities in Elbasan, and monitoring the distribution of income to avoid inequalities. For local authorities in Elbasan, the focus should be on identifying and selecting participating families in a transparent manner, creating a publicly managed community fund, collaborating with NGOs and tourism operators, and promoting rural areas such as Shpat and Labinot as authentic destinations. For tourism operators, the primary task is to develop tourism packages based on authentic experiences and not on the exposure of poverty, ensuring financial transparency for tourists, training staff and guides in ethics and intercultural communication, and limiting the number of tourists to maintain authenticity. For local communities, the main task is to actively engage in the management of tourism activity, preserving cultural identity and traditional ways of life, cooperation between families for fair distribution of benefits, and participation in hospitality and management training programs. For future research, the study suggests testing the TKD model with real data in Elbasan, expanding the study to other regions of Albania,

analyzing tourists' perceptions of ethics in tourism, and using advanced statistical methods for a more in-depth analysis.

In conclusion, transforming poverty tourism into a model based on dignity and structured contribution represents an important step towards a more just and sustainable tourism. The case of Elbasan illustrates that, when managed carefully, tourism can be transformed from a consumer activity into a real instrument of social development.

References

- Agarwal, S., Mahoney, N., & Stroebel, J. (2023). Hidden fees and consumer decision-making. *American Economic Review*, 113(4), 1125–1153. <https://doi.org/10.1257/aer.20200012>
- Butcher, J. (2007). *Tourism and poverty alleviation: The role of tourism in development*. Channel View Publications.
- Cejas, M. I. (2006). Tourism in Shantytowns and Slums: A New "Contact Zone" in the Era of Globalization. *Intercultural Communication Studies* 15
- Dovey, K., & King, R. (2012). *Slum tourism and urban regeneration in the global South*. (studies on favela tourism).
- Frenzel, F., Koens, K., & Steinbrink, M. (2012). *Slum tourism: Poverty, power and ethics*. Routledge. <https://doi.org/10.4324/9780203158395>
- Freire-Medeiros, B. (2009). The favela and its touristic transits. *Geoforum*, 40(4), 580–588. <https://doi.org/10.1016/j.geoforum.2008.10.007>
- Holloway, J.C., 1995. *The Business of Tourism*. Longman, Harlow.
- Koven, S., 2004. *Slumming: Sexual and Social Politics in Victorian London*. Princeton University Press, Princeton
- MacCannell, D., 1992. *The Tourist: A New Theory of the Leisure Class*. Schocken, New
- Koven, S., 2004. *Slumming: Sexual and Social Politics in Victorian London*. Princeton University Press, Princeton/Oxford.
- Mowforth, M., & Munt, I. (2016). *Tourism and sustainability: Development, globalisation and new tourism in the Third World* (4th ed.). Routledge.
- Nisbett, M. (2017). Empowering the empowered? Slum tourism and the depoliticization of poverty. *Geoforum* 85(1):37-45, DOI:10.1016/j.geoforum.2017.07.007
- Richards, G., 2007. Introduction: global trends in cultural tourism. In: Richards, G. (Ed.), *Cultural Tourism: Global and Local Perspectives*. The Haworth Hospitality Press, Oxford/New York/London
- Seaton, T., 2012. Wanting to Live with Common People Ellipsis? The Literary Evolution of Slumming. In: Frenzel, F., Koens, K., Steinbrink, M. (Eds.), *Slum Tourism: Poverty, Power and Ethics*. Routledge, Oxon, pp. 21–48.
- Stone, P.R., 2006. A dark tourism spectrum: towards a typology of death and macabre related tourist sites, attractions and exhibitions. *Tourism: An Interdisciplinary International Journal*, 52.
- Scheyvens, R. (2002). *Tourism for development: Empowering communities*. Prentice Hall. <https://doi.org/10.4324/9781315245973>
- Tarlow, P., 2005. Dark tourism: the appealing ‘dark’ side of tourism and more. In: Novelli, M. (Ed.), *Niche Tourism: Contemporary Issues, Trends, and Cases*. Elsevier, Amsterdam.
- United Nations World Tourism Organization (UNWTO). (2021). *Tourism and inclusive growth*. <https://doi.org/10.18111/9789284423347>

THE USE OF ARTIFICIAL INTELLIGENCE (AI) BY LEGAL PROFESSIONALS: AN ETHICAL AND PRACTICAL APPROACH

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Abstract

Artificial intelligence (AI) is quickly becoming synonymous with the future of the operation and provision of legal services. Integrating artificial intelligence (AI) into legal practice and education now represents an important transformation in the way legal services are provided and young professionals are trained. I fully analyze the use of artificial intelligence (AI) in legal practice with a special focus on protecting clients and improving the quality of legal services. The purpose of the study is to identify the main priority that lawyers should follow in the use of (AI) in order to protect the interests of clients and increase transparency and access to justice.

The methodology used is based on the analysis of data, through the review of academic literature, international reports and existing regulatory frameworks, including the EU AI Act and the General Data Protection Regulation. Qasja is descriptive-analytical and synon to identify the connection between the use of AI and the standards of protection of clients in practice law.

They also show that, although AI contributes to increased efficiency and reduced costs, its use also presents potential risks regarding the accuracy of information and the protection of personal data. For this reason, client protection must remain a top priority, while requiring continuous verification of AI results, respect for privacy standards and preservation of legal professional responsibility. A full analysis of the main priority that lawyers should lead in the use of AI, focusing on legal quality, professional ethics, data protection, increasing access to justice and the role of education for students.

Keywords: *Artificial Intelligence, Legal Services, Professional Ethics, Data Protection, Legal Education*

1.INTRODUCTION

The development and expansion of Artificial Intelligence (AI) across various sectors, including the legal system, have challenged legal professionals and academic institutions to embrace technological integration in order to improve service quality and increase efficiency. According to the Organisation for Economic Co-operation and Development (OECD, 2021), AI has the potential to transform the delivery of public and professional services, including the administration of justice. Similarly, the American Bar Association (ABA, 2020) emphasizes that legal professionals are entering an era in which technology can significantly enhance legal practice and decision-making processes. Advancements in AI technologies have substantially changed the way individuals and organizations perform personal and professional activities. The legal profession has not remained unaffected by this transformation. The increasing use of

AI tools is reshaping professions related to the interpretation, application, and enforcement of law. However, the integration of AI into legal practice also raises important concerns regarding ethics, accuracy, accountability, and professional responsibility. This study aims to analyze the key priorities that should guide legal professionals in the responsible and effective use of Artificial Intelligence. A lawyer who strategically utilizes AI should not merely seek to automate legal work but rather enhance the quality, transparency, and accessibility of legal services for clients and students. The primary principle guiding this approach is that AI should serve as a supportive tool rather than a substitute for professional legal judgment. One of the most important priorities is the verification of information generated by AI. Legal professionals must always validate AI-generated content against applicable legislation, case law, and contemporary legal doctrine in order to minimize the risk of errors, particularly in sensitive legal matters. Consequently, reliability and accuracy must take precedence over speed and convenience. Another critical priority is the protection of privacy and confidentiality. Personal data and case information should be anonymized whenever AI systems are used for legal analysis, education, or research purposes. Compliance with data protection standards is essential to safeguarding client rights and maintaining professional integrity. AI also offers opportunities to improve access to justice by democratizing legal information and simplifying legal concepts for individuals with limited legal knowledge. Through increased efficiency and transparency, AI can contribute to reducing legal service costs and making legal assistance more accessible. Therefore, inclusion and transparency should remain central objectives in the adoption of AI within legal practice. In legal education, AI should be used to foster critical thinking rather than replace analytical reasoning. Students should be encouraged to verify AI-generated responses through comparative analysis of legal sources, academic literature, and judicial decisions. Furthermore, AI can be effectively employed in practical simulations, case studies, and debates, thereby enhancing professional training and facilitating the acquisition of legal skills. Efficiency and time management represent additional advantages of AI adoption. AI tools can automate routine administrative tasks, assist in drafting contracts, summarize legal documents, and conduct preliminary legal research. This allows lawyers to dedicate more time to strategic legal analysis, complex problem-solving, and client counseling. Despite these benefits, lawyers remain fully responsible for any legal advice provided to clients. Transparency regarding the use of AI in legal services is essential, and legal professionals must avoid excessive reliance on technology. Professional integrity and human accountability must always prevail over automation. Given the rapid evolution of AI technologies, legal professionals must continuously update their knowledge of LegalTech innovations, AI regulation, and emerging legal frameworks such as the European Union AI Act. Continuous adaptation and professional development are therefore indispensable priorities for modern legal practice. Moreover, AI can facilitate the personalization of legal services by helping professionals better understand clients' specific needs, generate tailored legal recommendations, and improve communication. However, all AI-generated suggestions must be carefully reviewed and validated by qualified legal practitioners. Ultimately, the objective of integrating AI into legal practice is not simply to perform tasks more quickly, but to provide higher-quality, more accessible, and more client-centered legal services for both clients and students. The findings of this study demonstrate that although Artificial Intelligence contributes significantly to improving efficiency and reducing operational costs, its use also presents potential risks concerning information accuracy and the protection of personal data. For this reason, client protection must remain the highest priority. This requires continuous verification of AI-generated outputs, strict adherence to privacy standards, and the preservation of professional legal responsibility.

The integration of AI into the legal field should be guided by a balanced approach that combines technological innovation with the fundamental principles of client protection, ethical conduct, and professional accountability. This study holds particular theoretical and practical significance within the broader context of the digital transformation of legal systems and the increasing adoption of AI in the provision of legal services. As advanced technologies continue to reshape the legal profession, understanding how AI can be utilized to improve legal services for the benefit of clients and students becomes increasingly essential.

2.LITERATURE REVIEW

The use of artificial intelligence (AI) in the legal field has been widely discussed in the international literature as a development that increases the efficiency and quality of legal services, but is also associated with ethical and professional challenges. Artificial intelligence (AI) is quickly becoming synonymous with the future of the functioning and delivery of legal services. According to a 2025 survey (Robert J. Couture, 2025) of legal professionals from top law firms, more than 95% of firms have an AI use policy, 87% of respondents have established an AI working group, 73% of respondents indicated that their firms have already deployed an internal GenAI solution. This article describes six ways in which lawyers and law firms can leverage AI not only to create efficiency, but also to help develop and refine strategy, respond to clients faster, and deliver better results. According to Susskind (2019), digital technologies, including AI, have the potential to transform the traditional way of delivering justice by increasing access and reducing costs for clients. In the same vein, Surden (2019) emphasizes that AI can improve legal research and document analysis, but requires constant verification to avoid inaccuracies. A key aspect discussed in the literature is data protection and client confidentiality. The legal framework of the European Union, including the General Data Protection Regulation, sets high standards for the treatment of personal data, making this dimension essential in the use of AI by lawyers. Also, recent developments such as the EU AI Act aim to regulate the use of AI by guaranteeing transparency and security for users. In the field of legal education, the United Nations Educational, Scientific and Cultural Organization (2021) emphasizes the importance of using AI in order to support the development of critical thinking and not dependence on technology. Meanwhile, the American Bar Association emphasizes that lawyers remain responsible for legal advice, despite the use of AI. The literature emphasizes that AI is a powerful tool for improving legal services, but its use must be guided by clear ethical principles, client protection, and professional responsibility. Analyzing how AI can be used to improve services for clients enables lawyers (even young lawyers) to be more creative, efficient, and strategic. They can do the heavy lifting, such as reviewing documents, synthesizing evidence, identifying areas of knowledge for witnesses and supporting parties, and ultimately help deliver a more compelling story in court. As public awareness of new AI capabilities has grown, so has the curiosity and openness of lawyers about the potential for AI to improve the efficiency and effectiveness of their firms. Some of the ways lawyers can benefit from Artificial Intelligence according to the literature are, e-discovery which has evolved to become a centerpiece of case strategy. It is worth noting that modern e-discovery technology is not just about isolated features but is about integrating solutions to serve you at every stage of the litigation process. Document review and fact-finding where advanced AI can analyze what is relevant to a case by examining documents and considering

the order and meaning of words to arrive at an intelligent view of whether the document is relevant to the claims and defenses of the lawyers. AI's assistance in the review process not only results in significant time savings in document review, but also enables lawyers to uncover the story behind the evidence more quickly. Artificial intelligence (AI) is constantly evolving and is revolutionizing the legal field, empowering lawyers to work smarter, not harder. The implementation of intelligent technology solutions, as seen in Spellbook, has resulted in efficient document review, accelerated legal searches, improved contract review, and AI-assisted legal writing. The incorporation of AI into the legal field offers numerous benefits for law firms. For example, AI automation saves time and increases efficiency and accuracy, especially in tasks like contract sequencing. Setting up contract briefs can be a time-consuming process, but AI tools can streamline it by automatically tracking changes and suggesting changes. Learn more about how to effectively edit contract briefs using AI. Using AI tools based on ChatGPT significantly transforms various aspects of legal work. A growing number of law firms and departments are recognizing the benefits of incorporating AI into the firm's daily workload. In fact, up to 58% of all corporate legal departments in the US are already using AI, and a similar percentage of law firms are in the testing stages of artificial intelligence for their firms. Predictive analytics where lawyers report increased productivity for team members and staff, resulting in better outcomes and the ability to take on more cases, leading to more profits. Increased accuracy where AI-powered systems can scan content tirelessly and analyze large amounts of data over time, maintaining consistent accuracy. AI-powered tools are revolutionizing the way lawyers review contracts by automating the identification of key clauses and potential problems. This technology not only saves time, but also reduces the risk of human error. Improved customer service where AI tools can improve customer service and increase customer satisfaction. This includes real-time updates, 24/7 accessibility, personalized communication, legal chatbots, automated legal document collection, innovation, and competitive advantage. Law firms can face numerous challenges when integrating artificial intelligence solutions, including high initial costs, data security issues, and ethical concerns. These challenges require careful consideration and strategic planning for a successful implementation of artificial intelligence. Secure data is important in legal AI applications due to the sensitive nature of client information. Data privacy and integrity are critical for maintaining customer trust and compliance with legal standards. Best practices, according to the literature, for maintaining customer confidentiality and data integrity when implementing AI solutions include implementing strong encryption methods to protect data, regularly updating security protocols and software, conducting comprehensive security audits to identify vulnerabilities, and training employees on best practices for data handling and cybersecurity.

2.1 Programs used by lawyers around the world

Some of the top AI tools for lawyers currently preferred in the legal industry, based on functionality and user reviews, are Spellbook, an advanced AI-powered drafting and review assistant that can streamline processes ten times faster. Lex Machina: An AI platform for analyzing large amounts of legal data. Casetext: An AI-powered legal research tool to find relevant case law, statutes, and regulations using natural language queries. Harvey, an AI-powered platform designed specifically for lawyers. It can help with legal research, drafting, document review, and knowledge management. These benefits translate into happier clients

with faster turnaround times and 24/7 access to information. Plus, law firms that embrace AI can attract talented and tech-savvy clients by showcasing their technological leadership.

2.2 Reality in Albania

In practice, the use is more informal and individual, dominated by general AI (ChatGPT). Advanced platforms are used more by large law firms, international academic projects. The main challenge is the lack of training, the high cost of professional software, and concerns about confidentiality. Albanian lawyers are in a transition phase towards the use of AI, where the simplest tools are already integrated into daily practice, while advanced professional platforms are being gradually adopted. In Albania, there are still no very specific public studies that list by name all the programs used by Albanian lawyers, but from real practice (universities, law firms, public administration) and international trends, it can be clearly identified what is used and in what direction it is used. The main directions of use are related to increasing efficiency, improving the quality of service, and better protecting the interests of the client. Albanian lawyers usually combine: general AI (like ChatGPT), professional international legal platforms, tools integrated into Word/Google Docs and increasingly specialized legal AI. ChatGPT is used for contract drafting, law explanation in plain language, document summarization, student assistance (essays, case analysis). This is the most widely used tool due to its easy access and low cost. Microsoft Copilot is used for Word document drafting, legal document analysis and professional email with clients, widely used in law firms that use Microsoft Office. Professional legal research platforms like LexisNexis are used for case law and law research, legal analysis with AI and legal argument preparation that provides reliable sources and advanced analysis. Westlaw (through CoCounsel) is used for advanced legal research, case summarization, and litigation strategy building where AI can create complete reports with legal citations. Specialized AI for lawyers (still in development) gradual adoption in Albania): CoCounsel is used for in-depth legal research, document analysis and trial preparation, which automates complex research and saves a lot of time. Spellbook is used for drafting and reviewing contracts, suggesting clauses and identifying risks that enables direct integration into Word, very practical for lawyers. Kira Systems is used for high-volume contract control, clause analysis and M&A projects, which is used by the largest firms in the world. Harvey AI, which offers contract analysis, support in litigation, being considered one of the most advanced platforms in global growth.

3. RESEARCH METHODOLOGY

Research methodology involves a number of activities that need to be carried out. According to Howell Kerry E. (2013), methodology describes “the overall research strategy that determines how the research is conducted”. For this reason, one of the first steps in planning a research process is “a literature review, which involves searching all sources of information to track the latest knowledge, assessing its relevance to our topic, quality, contradictions and gaps”, (Walliman, N. 2011). This study is based on an analysis of secondary literature, including international reports, academic articles and the developing legal framework for artificial intelligence, such as the EU AI Act. Particular attention is paid to documents and frameworks developed by international institutions such as the Organization for Economic Co-operation and Development, the United Nations Educational, Scientific and Cultural Organization, the American Bar Association, as well as the regulatory framework of the European Union, including the EU AI Act and the General Data Protection Regulation. The literature selection process focused on recent and relevant publications that address

developments in legal technology, applications of AI in legal practice, ethical concerns in the use of AI, client confidentiality and data protection, and AI in legal education.

The approach is descriptive and analytical, with a focus on identifying best practices and key challenges. The analysis was organized into several thematic categories such as AI applications in legal practice, ethical responsibilities of lawyers, client protection and confidentiality, efficiency and quality of legal services, AI in legal education, and regulatory and institutional challenges.

Through comparative analysis, the study assesses the similarities and differences between international practices and the evolving context in Albania regarding the adoption of AI in the legal profession. Although the study does not involve direct human participation, ethical considerations remain important. In addition, the study critically assesses the ethical dimensions of the use of AI in legal services, emphasizing professional accountability, transparency, non-discrimination, confidentiality, and responsible use of client data.

4.RESULTS AND DISCUSSION

The results of this study show that the use of artificial intelligence (AI) in the legal field is significantly improving the efficiency and quality of legal services. Lawyers are increasingly using AI for legal research, document drafting, contract analysis and communication with clients. These technologies contribute to saving time, reducing costs and increasing access to legal information (Susskind, 2019). The study also highlights that AI helps improve customer service by providing faster information and more structured documents. In this way, clients benefit from greater transparency and easier access to legal services. However, the results show that the use of AI cannot completely replace the professional judgment of the lawyer, as there is a risk of inaccuracies and misinterpretation of legal information (Surden, 2019). Data protection and confidentiality is one of the main challenges related to maintaining client confidentiality. Regulations such as the General Data Protection Regulation (GDPR) require that personal data be treated with special care. The use of AI must comply with these standards to avoid legal violations. For this reason, lawyers must ensure continuous verification of information and protection of sensitive client data. On the other hand, the study shows that AI is also playing an important role in legal education. Law students are using AI as a didactic tool for simulations, for academic research, case analysis and document preparation. However, the literature highlights that the uncontrolled use of AI can weaken students' critical thinking and analytical skills (UNESCO, 2021). Increasing access to justice is another opportunity where AI has the potential to increase access to justice by reducing costs and providing accessible legal information to the public (Susskind, 2019). This is particularly important in developing countries, where access to legal services is limited. Automating routine tasks related to efficiency and time management, such as preparing contracts and document analysis, can increase the efficiency of lawyers' work. This allows them to focus more on strategic analysis and client relationships. The use of AI does not replace the responsibility of the lawyer. According to the American Bar Association (ABA, 2020), lawyers must maintain ethical standards and ensure transparency in the use of technology. Professional updating and adaptation is another outcome where lawyers must constantly update their knowledge of new technologies and the evolving legal framework. The EU AI Act represents an important step towards regulating AI in Europe.

The study also highlights that AI can help provide more personalized services to clients, analyzing their needs and offering tailored solutions, increasing service quality and client satisfaction. The use of artificial intelligence in the legal field represents a significant

opportunity for improving services and education. "AI is a very wonderful gift in that it is a catalyst for conversations about our business models and the scale of the firm that we would not have had without the capabilities of AI." according to (Robert J. Couture, 2025).

4.1 Results and Discussion – Albanian Context

In the Albanian context, the use of AI by lawyers is still in its infancy and is mainly used on an individual basis, but it is gaining considerable importance as a tool for improving the efficiency and quality of legal services. The analysis of the literature and current practices shows that Albanian lawyers are increasingly using AI platforms for legal research, document preparation, contract analysis and academic support. The study shows that the use of AI in Albania is mainly realized through general platforms such as OpenAI with ChatGPT and Microsoft Copilot. One of the main findings of the study is that AI helps Albanian lawyers reduce working time for routine tasks. The automation of contract drafting, document compilation and organization of legal information have positively impacted professional productivity. The study shows that client protection constitutes the most important challenge in the use of AI by Albanian lawyers. Many lawyers in Albania use AI without clear institutional policies on the protection of sensitive client data. This creates a potential risk of privacy and professional ethics violations. In this regard, the standards set by the General Data Protection Regulation are considered essential for guiding Albanian legal practice towards safer use of AI. The results show that Albania does not yet have a specific regulatory framework for the use of AI in the legal profession. Unlike European Union countries that are harmonizing legislation with the EU AI Act, the use of AI in Albania remains largely unregulated. Another important result is related to the impact of AI on legal education. Albanian law students are increasingly using AI for preparing assignments, legal analysis, academic translations, scientific research. However, the study shows that Albanian universities still do not have clear policies for the academic use of AI. This creates challenges regarding plagiarism, academic integrity, and the development of critical thinking. According to the United Nations Educational, Scientific and Cultural Organization (2021), AI should be used as a supporting tool and not as a substitute for the student's critical analysis. The lack of professional training, the costs of specialized platforms and the lack of a clear regulatory framework constitute the main challenges for the wider integration of AI in legal practice. In conclusion, the results show that artificial intelligence is gradually starting to transform legal practice and legal education in Albania. Despite the challenges related to ethics, privacy and the lack of institutional regulation, AI represents great potential for improving the efficiency and quality of legal services. However, client protection, professional responsibility and transparency should remain the main priorities in any process of integrating AI into the Albanian legal system.

4.2 Importance of the Study

This study presents a particular theoretical and practical importance. The theoretical importance of the study lies in enriching the existing literature on the intersection of law and technology, a rapidly developing field. Relying on the international regulatory framework such as the EU AI Act and the General Data Protection Regulation, the study contributes to the understanding of the challenges and opportunities associated with the use of AI in legal practice, especially in terms of client and personal data protection. The practical importance is related to providing a guiding framework for lawyers in Albania and beyond, on how AI can be used ethically and efficiently. The study helps to identify key priorities such as: ensuring legal accuracy, maintaining confidentiality, increasing access to justice and improving the quality of services to clients. In this way, it contributes to increasing public trust in legal services in an increasingly digitalized environment. The study also has particular importance

for the field of legal education. The use of AI in teaching and in the academic preparation of students requires a balanced approach, where technology serves as a supporting tool for the development of critical thinking and analytical skills. In this regard, the study provides a basis for the integration of AI into university curricula in a responsible and effective manner. Finally, the importance of this study also lies in its contribution to policymaking and the development of the regulatory framework at the national level. Reflecting international practices and standards set by organizations such as the Organisation for Economic Co-operation and Development and the American Bar Association, the study can serve as a reference for the development of policies and guidelines aimed at the safe and ethical use of AI in the legal sector. In conclusion, this study is important because it addresses a current topic with a direct impact on legal practice and education, focusing on client protection and professional responsibility in the era of artificial intelligence.

4.3 Study Limitations

The study is limited by the availability of empirical data specifically related to the use of AI by Albanian legal professionals. Since the adoption of AI in Albania remains at an early stage, most of the discussion relies on international literature and comparative analysis. Another limitation is related to the rapid evolution of AI technologies and legal regulations, which may lead to continuous changes in practices and policies over time. The chosen methodology provides a comprehensive understanding of the ethical and practical dimensions of AI in the legal profession. By combining doctrinal analysis with contemporary literature and international legal frameworks, the study creates a solid basis for assessing how AI can improve legal services while maintaining client protection and professional ethics.

5.CONCLUSION AND RECOMMENDATIONS

The rapid development of Artificial Intelligence (AI) is significantly transforming the legal profession and the way legal services are delivered. This study examined the ethical and practical dimensions of the use of AI by legal professionals, with a particular emphasis on client protection, professional responsibility and legal education. The findings show that AI has significant potential to improve the efficiency, accessibility and quality of legal services by supporting legal research, document drafting, contract analysis and communication with clients. At the same time, the study highlights that the integration of AI into legal practice poses significant ethical and professional challenges. The risks associated with inaccurate information generated by AI, breaches of confidentiality, data protection and over-reliance on technology require careful oversight by legal professionals. Therefore, AI should be considered as a supporting tool and not a replacement for human legal judgment and professional expertise. The study also highlights the importance of protecting clients' rights and maintaining transparency in the use of AI systems. Legal professionals remain fully responsible for the legal advice and services they provide, regardless of the technological tools used in the process. In this context, compliance with international standards such as the General Data Protection Regulation and the EU AI Act becomes increasingly important. Furthermore, the research highlights the growing role of AI in legal education. AI tools can support students through simulations, legal analysis and access to information; however, universities need to ensure that the technology strengthens critical thinking and analytical skills rather than encouraging academic dependence. In the Albanian context, the use of AI by legal professionals is still developing and remains largely informal and individual. However, the growing global expansion of LegalTech solutions indicates that AI will become an essential component of future legal practice. Consequently, legal institutions, universities, and policymakers in

Albania must proactively address the opportunities and risks associated with the adoption of AI.

Based on the findings of this study, the following recommendations are proposed: Development of Ethical Guidelines for the Use of AI where legal institutions and professional organizations should create clear ethical guidelines regarding the use of AI in legal practice, particularly regarding client confidentiality, transparency, professional accountability, verification of information generated by AI. Strengthening data protection measures is another recommendation, where lawyers and law firms should implement stronger cybersecurity and data protection practices to ensure compliance with the General Data Protection Regulation and international privacy standards. Sensitive client information should not be shared with unsecured AI platforms. Professional training and knowledge on AI a recommendation that focuses on organizing ongoing training programs for legal professionals to improve their understanding of AI technologies, legal technology applications, ethical risks, as well as the responsible use of AI in legal services. Integration of AI in legal education where universities and law faculties should include AI-related subjects in legal curricula, including “Legal Technology” and “Digital Law”. “AI Ethics”, “Data Protection”, “Practical Applications of AI in Legal Research and Drafting”. The goal should be to develop critical and responsible future legal professionals. Human oversight and responsibility, where AI systems should always operate under human supervision. Final legal decisions, legal interpretations and professional judgments should remain the responsibility of qualified legal professionals. Promoting the Client-Centric Use of AI recommends that AI tools should be used to improve the client experience through clearer legal communication, faster service delivery, simplified legal information, and improved access to justice. Client protection should remain the primary objective of integrating AI into legal practice. Developing a National Regulatory Framework is a very important recommendation where Albania should work towards developing a clearer regulatory framework for the use of AI in legal and professional services, in line with European Union standards and international best practices.

In conclusion, artificial intelligence (AI) represents both an opportunity and a challenge for the legal profession. When used responsibly, ethically and under professional supervision, AI can contribute to more efficient, accessible and client-oriented legal services. However, client protection, professional integrity and ethical responsibility must remain at the heart of any technological advancement in the legal field.

References

- American Bar Association. (2020). *Model Rules of Professional Conduct*.
- Howell, K. E. (2013). *An introduction to the philosophy of methodology*. Sage.
<https://doi.org/10.4135/9781473957633>
- Organisation for Economic Co-operation and Development. (2021). *OECD AI Principles*.
- Robert J. Couture* (February 24, 2025). The Impact of Artificial Intelligence on Law Firms' Business Models.
<https://clp.law.harvard.edu/>
- Susskind, R. (2019). *Online courts and the future of justice*. Oxford University Press.
- Surden, H. (2019). Artificial intelligence and law: An overview. *Georgia State University Law Review*, 35(4), 1305–1335.
- United Nations Educational, Scientific and Cultural Organization. (2021). *AI and education: Guidance for policy-makers*.
- European Union. (2024). *Artificial Intelligence Act*.
- European Union. (2016). *General Data Protection Regulation (GDPR)*.
- Walliman, N. (2011). *Research methods: The basics*. Routledge.
<https://doi.org/10.4324/9780203836071>
- <https://csdisco.com/blog/how-lawyers-can-benefit-from-ai>

<https://www.spellbook.legal/learn/ai-for-lawyers>

<https://csdisco.com/blog/how-lawyers-can-benefit-from-ai>

[https://www.bijcl.org/documents/170 use of artificial intelligence in legal practice final.pdf](https://www.bijcl.org/documents/170_use_of_artificial_intelligence_in_legal_practice_final.pdf)

<https://clp.law.harvard.edu/knowledge-hub/insights/the-impact-of-artificial-intelligence-on-law-law-firms-business-models/>

INTERNATIONAL FUNDING INSTRUMENTS AND TOURISM-LED REGIONAL DEVELOPMENT: AN ANALYSIS OF CROSS-BORDER AND LOCAL DEVELOPMENT MODELS IN ALBANIA

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Abstract

International funding instruments have become increasingly important in supporting tourism-led regional development in transition economies. In Albania and the Western Balkans, European Union and bilateral programmes have contributed to territorial cohesion, infrastructure improvement, entrepreneurship, and destination competitiveness. However, limited research has examined how these instruments transform local tourism potential into measurable regional outcomes.

This paper analyses the contribution of international funding instruments to tourism development in Albania, with particular focus on the IPA Albania–North Macedonia Cross-Border Cooperation Programme and selected local initiatives. The study examines how external financing has supported cross-border tourism integration, local destination development, and economic diversification, with emphasis on cooperation between Elbasan Municipality and Krusevo Municipality.

The research applies a qualitative document analysis methodology based on programme frameworks, project applications, strategic studies, and implementation documents from 2014–2026, including the Krusevo–Elbasan tourism strategy.

Findings indicate that international funding has helped transform fragmented tourism assets into more structured destination systems through infrastructure investment, branding, skills development, and stakeholder cooperation. The Albania–North Macedonia case shows that heritage, gastronomy, nature, and adventure tourism can be successfully combined across borders to improve competitiveness.

The paper concludes that tourism-oriented funding instruments generate stronger results when aligned with territorial assets, local partnerships, and long-term planning.

Keywords: IPA CBC, Tourism Development, Regional Growth, Albania, Cross-Border Cooperation

1. Introduction

Tourism is increasingly recognized as a strategic sector for economic growth, employment creation, and regional competitiveness, particularly in transition and emerging economies (OECD, 2020; UNWTO, 2023). In countries such as Albania, where many regions possess valuable natural, cultural, and historical resources but continue to face structural development constraints, tourism offers important opportunities for economic diversification, territorial revitalisation, and local income generation (UNWTO, 2022). Beyond its direct contribution, tourism also stimulates supporting sectors such as transport, agriculture, hospitality, retail, and creative industries (OECD, 2020).

At the same time, the development potential of smaller municipalities often depends not only on local resources, but also on access to external financing, institutional capacity, and long-term strategic planning. International funding instruments have therefore become increasingly important in supporting infrastructure improvement, entrepreneurship, destination management, and regional cooperation (European Commission, 2014). Within the Western Balkans, European Union programmes have played a particularly relevant role in promoting cohesion, sustainability, and cross-border integration (European Commission, 2021).

Among these instruments, the IPA Albania–North Macedonia Cross-Border Cooperation Programme represents a significant example of how external funding can contribute to practical regional transformation through tourism (European Commission, 2022). By encouraging partnerships between neighbouring municipalities, public institutions, and local organisations, the programme has created opportunities for joint tourism products, knowledge exchange, infrastructure investment, and increased destination visibility. The cooperation between Elbasan Municipality and Krusevo Municipality provides a particularly relevant case for examining these dynamics (KET Project, 2021).

Despite growing policy interest in tourism-led development, relatively limited academic attention has been given to how international funding mechanisms practically influence tourism outcomes at municipal level in Albania. In particular, there is insufficient evidence regarding how cross-border programmes contribute to local competitiveness, destination integration, and sustainable regional growth in secondary municipalities such as Elbasan.

This paper addresses this gap by analyzing the contribution of international funding instruments to tourism development in Albania, with particular focus on the IPA Albania–North Macedonia Cross-Border Cooperation Programme and selected local initiatives. The study examines how external financing has supported tourism integration, territorial cooperation, and economic diversification, with emphasis on the Elbasan region. To address this objective, the paper investigates two central research questions: how international funding instruments have contributed to tourism-led regional development in Albania, and to what extent IPA cross-border cooperation has strengthened Elbasan’s tourism competitiveness.

The paper is structured as follows. The next section presents a review of the relevant literature on tourism-led regional development, cross-border cooperation, and the role of international funding instruments, highlighting key theoretical and policy perspectives. This is followed by the methodology section, which explains the qualitative document analysis approach and the main data sources used in the study. The results and discussion section then presents the main findings, focusing on the contribution of international funding, particularly the IPA Albania–North Macedonia Cross-Border Cooperation Programme, to tourism development and regional competitiveness in Elbasan. The final section provides the conclusions, outlines key policy implications, and offers recommendations for strengthening the role of international funding instruments in promoting sustainable and inclusive tourism development in Albania and the wider Western Balkans.

2. Literature Review

Tourism has long been recognized as an important driver of regional development, employment creation, and territorial competitiveness (OECD, 2020; UNWTO, 2023). Through visitor expenditure, supply-chain linkages, and induced local income effects, tourism generates both direct and indirect economic benefits for host regions (UNWTO, 2022). In many transition and peripheral economies, tourism is increasingly viewed as an alternative pathway for diversification where industrial capacity remains limited. However, much of this literature focuses on national or large regional economies, while comparatively less attention is given to the specific dynamics and constraints of smaller municipalities.

Regional development scholars argue that territories rich in natural landscapes, cultural heritage, gastronomy, and traditional lifestyles can transform these assets into sustainable growth through destination management, territorial branding, and entrepreneurship support (OECD, 2020). Tourism therefore contributes not only to income generation, but also to infrastructure development, urban regeneration, and SME creation. At the same time, the effectiveness of these processes often depends on local institutional capacity, governance quality, and access to external financial resources, which are unevenly distributed across regions.

A second important strand of literature concerns cross-border cooperation. Historically, border regions were often characterized by weak connectivity, low investment, and institutional fragmentation. However, European regional policy has gradually reframed border areas as spaces of opportunity, where neighboring territories may jointly develop markets, services, and tourism products (European Commission, 2021). Cross-border tourism is frequently cited as one of the most effective forms of territorial cooperation because it allows nearby destinations to combine complementary attractions into integrated visitor experiences.

Previous studies on European Union territorial cooperation programmes show that cross-border tourism initiatives can improve institutional capacity, increase destination visibility, and strengthen stakeholder networks (European Commission, 2022). Joint tourism routes, cultural festivals, heritage trails, and coordinated marketing strategies often generate stronger competitiveness than isolated municipal initiatives. Nevertheless, existing studies tend to emphasize programme outputs rather than long-term territorial impacts, and limited empirical evidence is available on how such cooperation translates into sustained local economic development, especially in smaller municipalities.

A third area of literature focuses on sustainable tourism development. Contemporary tourism policy increasingly emphasises environmental protection, community participation, year-round tourism activity, and responsible management of cultural and natural resources (UNWTO, 2022). Sustainable tourism models aim to balance economic growth with long-term territorial resilience. In the Western Balkans, tourism development is often shaped by structural challenges such as fragmented governance systems, limited administrative capacities at the local level, and strong dependence on external financial support. While the region possesses significant tourism potential, the translation of this potential into sustainable and competitive destinations remains uneven.

Despite extensive literature on tourism and regional policy, fewer studies have examined how international funding instruments practically shape tourism development at municipal level in the Western Balkans. In particular, limited attention has been given to how programmes such as the IPA Cross-Border Cooperation Programme contribute to destination systems, entrepreneurship, and regional competitiveness in smaller municipalities such as Elbasan (European Commission, 2022; KET Project, 2021). Existing research often focuses on programme design and implementation outputs, while providing less insight into how these interventions translate into long-term territorial outcomes, local value creation, and institutional learning processes. Moreover, the interaction between external funding instruments and local governance capacities remains underexplored, particularly in transition contexts where institutional fragmentation and resource constraints may limit policy effectiveness (OECD, 2020; European Commission, 2021).

Addressing these gaps requires a more grounded, place-based understanding of how funding mechanisms operate within specific territorial contexts. This study responds to this need by adopting a qualitative, document-based approach to examine the contribution of international funding instruments to tourism development in Albania, with a particular focus on the Elbasan–Krusevo cross-border cooperation experience. By linking funding interventions to key dimensions such as infrastructure development, destination competitiveness, stakeholder

cooperation, and sustainability, the paper contributes to a more nuanced understanding of tourism as a territorially embedded and policy-driven process (UNWTO, 2022; OECD, 2020). In doing so, the study not only fills an empirical gap in the Western Balkans literature but also contributes to broader debates on the effectiveness of EU-funded territorial cooperation programmes in fostering sustainable regional development and local economic transformation (European Commission, 2022).

3. Methodology

This paper applies a qualitative document analysis methodology to examine the contribution of international funding instruments to tourism-led regional development in Albania and to assess the role of IPA cross-border cooperation in strengthening Elbasan’s tourism competitiveness. This approach is appropriate because many territorial development processes are first reflected in programme documents, project applications, strategic studies, implementation reports, and policy frameworks before becoming fully visible in official economic statistics (Bowen, 2009).

The research covers the period 2014–2026, including key funding cycles such as IPA II, IPA III, Erasmus+, and bilateral development initiatives. This timeframe allows an assessment of policy continuity, evolving development priorities, and changing regional impacts over time (European Commission, 2014; European Commission, 2021).

The main sources analyzed include IPA Albania–North Macedonia Cross-Border Cooperation programme documents, the Krusevo–Elbasan Strategy Analysis developed under the KET Project, project documentation from subsequent cooperation initiatives, IADSA II Belsh Municipality tourism files, Erasmus+ V-ROADS project materials, and complementary European Union policy reports (European Commission, 2022; KET Project, 2021).

Particular importance is given to the KET strategy analysis, as it provides practical territorial evidence on tourism assets, accommodation capacities, infrastructure needs, stakeholder cooperation, and opportunities for joint destination development between Elbasan and Krusevo (KET Project, 2021).

To address the research questions, the documents were reviewed according to six analytical dimensions: tourism infrastructure, destination competitiveness, entrepreneurship and SME development, skills and employability, governance and cross-border cooperation, and sustainability. These categories were selected because they frequently appear in regional tourism development and territorial cooperation literature (OECD, 2020; UNWTO, 2022). The analytical process followed a structured content analysis approach, involving document selection, thematic coding, and comparative interpretation across sources. Patterns, recurring themes, and policy priorities were identified and analysed in relation to the research questions. This approach enhances the transparency and replicability of the analysis while allowing for an in-depth understanding of complex policy interactions (Bowen, 2009).

This methodology is especially relevant in the Western Balkan context, where municipal tourism statistics may be fragmented or limited. Although some documents focus more on planned outputs than final measured results, the approach provides a reliable basis for interpreting how international funding supports tourism development and regional growth (European Commission, 2023).

4. Results and Discussion

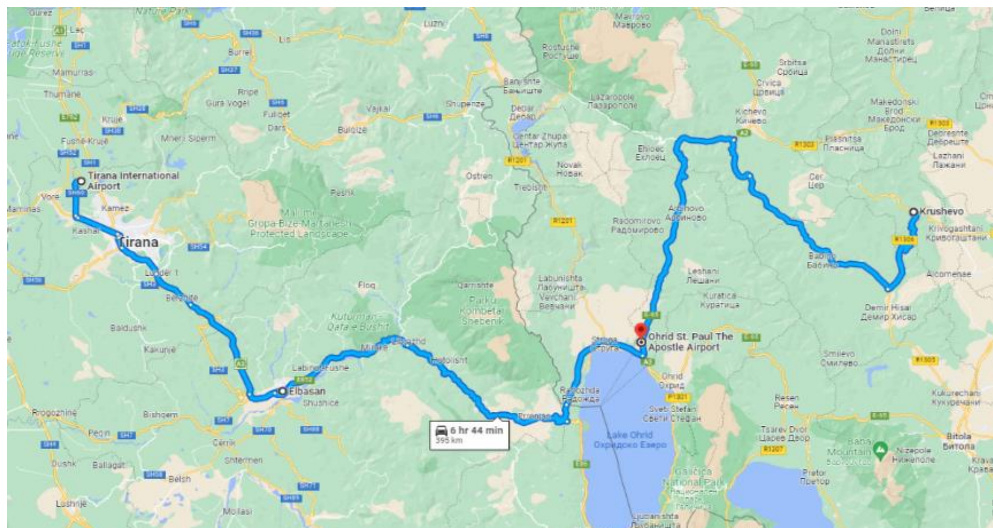
The findings provide evidence for both research questions. First, international funding instruments have played a significant role in transforming tourism potential into practical

regional development outcomes in Albania. Support has increasingly moved beyond isolated promotional activities toward infrastructure improvement, destination management, skills development, and stronger territorial cooperation (European Commission, 2014; OECD, 2020). This shift indicates a transition from short-term interventions toward more integrated and strategic approaches to regional development, particularly relevant for municipalities with limited internal capacities.

Second, the analysis shows that the IPA Albania–North Macedonia Cross-Border Cooperation Programme has positively contributed to strengthening Elbasan’s tourism competitiveness through cross-border partnerships, destination visibility, complementary tourism products, and regional market integration (European Commission, 2022). A key finding concerns the long-term contribution of the IPA Albania–North Macedonia Cross-Border Cooperation Programme. Through successive funding cycles, the programme has enabled municipalities and local organizations to build partnerships, develop joint tourism products, and improve the visibility of border territories previously excluded from mainstream tourism flows (European Commission, 2022; European Commission, 2024). In addition, repeated cooperation cycles appear to strengthen institutional learning and trust among partners, which are essential for sustainable cross-border governance.

The cooperation between Elbasan Municipality and Krusevo Municipality provides a relevant example. Strategic studies prepared under the KET Project identified strong complementarities between the two territories. Elbasan offers historical heritage, gastronomy, thermal tourism, and accessibility from central Albania, while Krusevo offers mountain tourism, paragliding, hiking, winter activities, and preserved architecture. Combined, these assets create the basis for an integrated cross-border destination (KET Project, 2021).

Figure 1: Road connections to the hubs at the Krushevo-Elbasan Destination



Namely, domestic and international visitors arriving through Tirana International Airport or Skopje can access the corridor through relatively efficient road connections. Motorway-standard infrastructure is available up to Elbasan on the Albanian side and toward the Gradsko–Ohrid axis on the North Macedonian side. From the Qafë Thanë border crossing, travellers continue toward Elbasan or Struga through regional roads of moderate quality. This accessibility is important, as transport connectivity remains a key determinant of tourism flows, destination competitiveness, and the practical feasibility of cross-border travel packages.

Table 1. Comparative Tourism Assets of Elbasan and Krusevo

Indicator	Elbasan	Krusevo
Cultural Heritage	High	Medium
Gastronomy Tourism	High	Medium
Thermal / Wellness Tourism	High	Low
Mountain Tourism	Medium	High
Adventure Tourism	Medium	High
Winter Tourism	Low	High
Accessibility	High	Medium
Accommodation Capacity	Medium	High

Source: Author

Beyond the numerical growth trends, the data suggest that tourism development in Elbasan and Krushevo cannot be explained only by domestic factors. A key driver has been the strengthening of cross-border cooperation between the two municipalities, which has improved the attractiveness and functional connectivity of the shared tourism corridor.

The partnership between Elbasan and Krushevo has contributed to increasing tourist mobility through joint destination branding, institutional cooperation, exchange of tourism practices, and promotion of complementary tourism products. Rather than competing separately, both municipalities have increasingly benefited from a cooperative regional model.

The steady rise of Elbasan’s tourist arrivals after 2021—from 6,113 visitors to 7,400 in 2025—indicates renewed tourism dynamism. At the same time, Krushevo’s strong rebound in overnight stays in 2021 confirms that the broader corridor regained market confidence after the pandemic.

The continuity of cooperation is also significant. Rather than ending with a single successful intervention, the Elbasan–Krushevo partnership has evolved into a more advanced stage through the new IPA III initiative *Krusevo and Elbasan – Journey in Nature and Adventure*. This follow-up action confirms that cross-border cooperation can mature from basic destination promotion into a broader regional governance model that combines municipal leadership with the active participation of civil society organisations, tourism associations, local entrepreneurs, and educational actors (Krusevo Municipality & Elbasan Municipality, 2026). The project foresees joint investments in tourism infrastructure, capacity-building for entrepreneurs, creation of a cross-border stakeholder network, coordinated marketing campaigns, and sustainable management of natural heritage assets (Krusevo Municipality & Elbasan Municipality, 2026). In practical terms, this demonstrates how cooperation between local governments, supported by civic actors, can transform the Albania–North Macedonia border corridor into an integrated tourism and economic development space with stronger competitiveness, higher visitor flows, and wider socio-economic benefits for local communities. The findings suggest that tourism funding is most effective when combining physical investment with skills development, partnerships, and long-term planning. This reinforces the need for integrated policy approaches that link infrastructure, human capital, and governance dimensions in tourism development.

Table 2. Comparative Tourism Indicators and Cross-Border Development Effects: Elbasan–Krushevo Corridor (2017–2025)

Year	Elbasan Overnights	Elbasan Total Tourists	Domestic Tourists	Foreign Tourists	Krushevo Overnights	Cross-Border Interpretation
2017	11,756	5,437	2,340	3,097	46,741	Initial tourism base before cooperation intensification
2018	12,809	5,985	2,687	3,298	51,526	Increasing destination visibility
2019	13,654	6,278	2,812	3,466	56,660	Strong pre-pandemic expansion
2020	10,800	5,964	3,125	2,839	44,273	Pandemic disruption
2021	12,300	6,113	3,108	3,005	52,454	Recovery supported by regional tourism demand
2022	13,200	6,400	3,200	3,200	n/a	Re-activation of corridor mobility
2023	14,000	6,700	3,300	3,400	n/a	Strengthening cross-border flows
2024	14,850	7,050	3,450	3,600	n/a	Growth linked to joint promotion and partnerships
2025	15,700	7,400	3,600	3,800	n/a	Consolidation of shared tourism corridor

Source: Municipality of Elbasan; MakStat database

Conclusion

This paper examined the role of international funding instruments in supporting tourism-led regional development in Albania, with particular focus on the IPA Albania–North Macedonia Cross-Border Cooperation Programme and selected local initiatives. The findings confirm that external financing mechanisms have contributed significantly to transforming underused territorial assets into more structured, competitive, and sustainable tourism destinations (European Commission, 2022; OECD, 2020).

The historical evolution of IPA cooperation between 2014 and 2026 demonstrates how cross-border programmes can gradually progress from institutional networking toward practical economic and territorial outcomes. Over successive funding cycles, priorities evolved from basic cooperation and heritage promotion toward entrepreneurship, SME competitiveness, innovation, green growth, and long-term regional partnerships (European Commission, 2014; European Commission, 2021). In the case of Elbasan and Krushevo, cooperation has helped identify complementary tourism assets and create the basis for integrated destination development based on heritage, gastronomy, nature, and adventure tourism (KET Project, 2021).

The comparative tourism data reinforce these findings. Both municipalities experienced steady pre-pandemic tourism growth between 2017 and 2019, followed by a sharp decline in 2020 and a clear recovery afterwards. In Elbasan, overnight stays increased from 11,756 in 2017 to 15,700 in 2025, while total tourist arrivals rose from 5,437 to 7,400 over the same period, exceeding pre-pandemic levels. Krushevo recorded substantially higher tourism intensity, with overnight stays rising from 46,741 in 2017 to 56,660 in 2019, before recovering strongly to 52,454 in 2021 after the pandemic shock. These trends indicate both resilience and renewed tourism demand across the shared corridor.

The study also shows that tourism funding is most effective when it combines physical infrastructure investment, stakeholder cooperation, skills development, destination branding, and long-term strategic planning. Evidence from Belsh Municipality and Erasmus+ initiatives further confirms the importance of local infrastructure, vocational capacity-building, and human capital for sustainable growth (Belsh Municipality, 2023; European Commission, 2023).

From a practical perspective, smaller municipalities can achieve stronger competitiveness through cooperation rather than isolated action. The Elbasan–Krushevo experience suggests that cross-border tourism corridors and coordinated destination management can generate higher visitor spending, longer stays, improved market visibility, and wider local economic benefits. By linking complementary tourism assets, the partnership has also encouraged stronger tourist movement across the Albania–North Macedonia corridor and contributed to a more integrated regional tourism space (UNWTO, 2023).

Future policies should therefore prioritise integrated tourism planning, digital promotion, sustainable mobility, climate-sensitive tourism development, improved tourism statistics, and continued support for local entrepreneurship.

The paper concludes that international funding instruments should be viewed not only as financial assistance, but as strategic tools for regional transformation. The experience of the Elbasan–Krushevo partnership demonstrates that their greatest value emerges when they connect territories, mobilize local actors, and transform shared resources into sustainable economic opportunities. For Albania and the wider Western Balkans, tourism can play a central role in inclusive and sustainable development when supported by effective partnerships, measurable results, and long-term planning (European Commission, 2021; UNWTO, 2022).

Table 2. Policy Recommendations Derived from the Study Findings

Priority Area	Recommended Action	Expected Outcome	Key Stakeholders
Destination Branding	Develop a joint Albania–North Macedonia tourism identity	Stronger market recognition and cross-border visibility	Municipalities, tourism boards
Digital Promotion	Improve online visibility, booking presence, and digital marketing	Higher tourist reaches and booking conversion	DMOs, SMEs, digital agencies
SME Support	Finance local tourism businesses and start-ups	Increased entrepreneurship and local employment	Municipalities, donors, banks
Skills Development	Expand vocational tourism training programmes	Better service quality and employability	Universities, training centers
Sustainability	Promote eco-tourism and low-impact mobility solutions	Long-term environmental resilience	Local government, NGOs
Infrastructure	Upgrade access roads, signage, and visitor facilities	Improved visitor experience and accessibility	Municipalities, national agencies
Cross-Border Governance	Strengthen joint planning and destination management	Better coordination and regional competitiveness	Partner municipalities

“The experience of the Elbasan–Krushevo partnership demonstrates that international funding creates its greatest value not when it simply finances projects, but when it connects territories,

mobilizes local actors, and transforms shared resources into sustainable economic opportunities. Therefore, the main added value of this cross-border partnership lies not only in supporting investments, but in creating a functional tourism corridor where visitor mobility, economic interaction, and regional identity are significantly strengthened. In this sense, cross-border tourism is not only a development instrument, but also a long-term investment in regional resilience, sustainable competitiveness, and European integration”.

References

- Belsh Municipality. (2023). *Integrated tourism services for sustainable local development: IADSA II project file*. Internal municipal documentation.
- European Commission. (2014). *Instrument for Pre-Accession Assistance (IPA II): Indicative strategy paper for Albania 2014–2020*. Brussels: European Commission.
- European Commission. (2021). *IPA III programming framework 2021–2027 for the Western Balkans*. Brussels: European Commission.
- European Commission. (2022). *Albania–North Macedonia Cross-Border Cooperation Programme: Calls for proposals and programme priorities*. Brussels: European Commission.
- European Commission. (2023). *Erasmus+ programme guide: Vocational education, skills and innovation actions*. Brussels: European Commission.
- KET Project. (2021). *Analysis and marketing strategy for Krusevo and Elbasan as a cross-border tourism destination*. Unpublished project report.
- Krusevo Municipality & Elbasan Municipality. (2024). *Krusevo and Elbasan – Acknowledged Cross-Border Tourist Destination: Final project documentation*. Unpublished project report.
- Krusevo Municipality & Elbasan Municipality. (2024). *Krusevo and Elbasan – Journey in Nature and Adventure: Application and action plan*. Unpublished project report.
- OECD. (2020). *Tourism trends and policies 2020*. Paris: OECD Publishing.
- Tjetër Vizion Organization. (2023). *Local development initiatives and tourism project documentation for Elbasan Municipality*. Internal project archive.
- UNWTO. (2022). *Tourism and rural development: A policy perspective*. Madrid: World Tourism Organization.
- UNWTO. (2023). *International tourism highlights*. Madrid: World Tourism Organization.

DEMOGRAPHIC CHANGES AND THEIR IMPACT ON THE LABOR MARKET IN THE REPUBLIC OF ALBANIA AND THE EUROPEAN UNION, AS WELL AS THE ROLE OF EU DIRECTIVES AND THE INTERNAL LEGAL FRAMEWORK

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Abstract

This study examines the impact of demographic changes on the labor market in Albania, focusing on the decline in birth rates, youth emigration, and population aging. These phenomena have led to labor shortages, a decrease in active age groups, and increased pressure on pensions and social services.

The study also compares Albanian laws with European Union directives and concludes that current measures are not sufficient to face demographic challenges. For this reason, it emphasizes the need for stronger policies in support of families, curbing emigration, including the elderly in the labor market, and reforms that help maintain human capital in Albania.

Keywords: Birth Rate, Human Capital, Labour Market, Emigration

Introduction

Demographic movement, comprised of emigration, birth rates, and population aging, is a phenomenon with deep and long-term implications for a country's economic and social development. In Albania, these processes have reached significant proportions, turning into one of the main structural challenges of the last decade.

The decline in population, a trend that has intensified after 2015, comes as a result of a combination of two factors: the mass departure of young people toward European Union countries and the low birth rate, which has fallen below the population replacement rate. This demographic shift has produced a noticeable shrinkage of active age groups, creating large gaps in the labor market. On the other hand, population aging has increased pressure on the pension system and social spending, calling into question the financial sustainability of these schemes. In this context, demographic movements should not be considered merely as statistical issues, but as critical factors affecting productivity, economic competitiveness, and the country's ability to attract and retain human capital.

Demographic Trends in Albania

Population aging is one of the most significant demographic processes that Albania has been undergoing in recent decades. According to 2023 Census data, the Albanian population is considerably older compared to 2011. The median age of the population has risen from approximately 35.3 years in 2011 to about 42.5 years in 2023, clearly showing a shift in the age structure toward older groups (INSTAT, 2024). This change is closely linked to low birth rates, high youth emigration, and increased life expectancy.

The increase in the age group over 65 has caused a sharp rise in the old-age dependency ratio. This means that every year there are fewer and fewer people of working age to financially support the pension system and social services. According to the UNFPA report (2023), Albania is entering a phase where demographic aging is becoming a structural challenge, as the number of young people decreases while older groups grow rapidly.

Another key factor is emigration, which has primarily affected young people and those at the peak of their productivity. Consequently, the decrease in births and the departure of young people have accelerated the population aging process. UNFPA notes that if these trends continue, Albania will face a labor shortage and strong pressure on the pension system and public finances.

Population aging also has other social and economic impacts. With fewer young people of working age, the Albanian economy could face slower production growth and increased costs for healthcare and social services. Furthermore, families are facing new challenges in supporting the elderly, as there are fewer young members available to assist with their care.

Demographic and social policies must focus on incentivizing births, reducing youth emigration, and improving infrastructure for elderly care. If these measures are not taken, Albania could face severe labor shortages and heavy pressure on the pension system and public finances in the coming decades (UNFPA, 2023).

Impact on work

The shrinkage of the population in Albania has begun to be influenced by several key factors: the decline in birth rates, youth emigration, and the increase in the median age of the population. According to INSTAT data, Albania has a continuous trend of decreasing population in the working-age groups, while the ratio of the elderly to the young is increasing (INSTAT, 2023). This has direct consequences on the labor market, causing a shortage of workforce, wage increases, and difficulties in filling specialized positions. According to contemporary articles, between 2023 and 2024, the working-age population (15–64) decreased from approximately 1,864,062 to 1,542,389, a drop of ~17%. The Bank of Albania, in its 2023 annual report, emphasizes that the "shrinking pace" of the workforce has indeed gained momentum. This shrinkage of the labor force will negatively impact production capacity, employment growth potential, and economic diversification.

Population shrinkage is considered a phenomenon where the number of individuals in a country or region falls due to a combination of factors such as declining birth rates, mortality rates, and youth emigration. This phenomenon is becoming increasingly important globally, especially in developed countries and those facing mass emigration.

Main causes of population shrinkage:

Decline in Birth Rates: In many countries, women are having fewer children due to higher education, integration into the labor market, and changes in personal preferences.

Youth Emigration: The departure of young people for educational or employment reasons reduces the labor force base and creates a shortage of energetic workers.

Increased Life Expectancy and Population Aging: The rise in the number of elderly people relative to the young creates pressure on social systems and the economy.

Evaluation by the International Labour Organization (ILO)

The International Labour Organization (ILO) emphasizes that demographic movements are a fundamental factor significantly affecting the functioning of the labor market in Albania. The ILO and ILOSTAT highlight that high emigration, especially among young people and qualified professionals, has significantly reduced the domestic supply of the workforce and created skill shortages in specific sectors of the economy, including healthcare, engineering, and technical professions (ILOSTAT, n.d.; ILO, 2024). Similarly, OECD reports show that long-term emigration has contributed to the "brain drain" phenomenon, which negatively impacts economic development and the attraction of new investments (OECD, 2022).

Another important dimension is the gradual aging of the population, which increases dependency ratios and reduces the long-term potential of the labor force supply, while simultaneously increasing pressure on social systems (ETF, 2023). Internal migration toward major urban areas, primarily Tirana, also creates regional labor supply imbalances and mismatches between job seekers' skills and market demands. Emigration produces a dual impact: while remittances and the potential of the diaspora could translate into development opportunities if accompanied by proper policies for "brain gain" and the economic inclusion of emigrants (IOM, n.d.).

Overall, international literature considers demographic movements as one of the main determinants of labor market trends in Albania, calling for integrated policies for skill management, increasing labor participation, and engaging the diaspora. The ILO notes in a study that the population of Albania is aging rapidly. According to ILO forecasts, the number of people over 65 who need long-term care will increase significantly, and the current social system is not prepared for this change. Currently, the ILO calculates that approximately 90,900 people over 65 in Albania need long-term care, which is a considerable portion of this age group.

The ILO emphasizes that the capacity of public services for elderly care is very low: residential institutions can accommodate only a very small portion of those in need, and there is a lack of community services for home care. One of the ILO's recommendations is for Albania to create a financially sustainable system for long-term care, mobilizing resources to fund quality and affordable services.

Albanian laws on employment and social policy

Albanian laws on employment and social protection provide an important framework for the inclusion of youth, vulnerable groups, and the promotion of active labor market programs. However, they are not sufficient to mitigate the effects of population shrinkage in a sustainable way without stronger family policies, measures to prevent emigration, financial reforms for social systems, and robust, sustainable funding.

What do the key laws say?

- **Law No. 15/2019 "On Employment Promotion" (amended by Law No. 47/2023):** Establishes the basis for active labor market programs (public works, self-employment, internships, professional training vouchers) and expands the category of "special

groups" (including youth under 29). This law creates institutional mechanisms (AKPA) and financial tools (e.g., the Social Employment Fund).

- **The Labor Code (Law No. 7961/1995, as amended, including the 2024 Amendments – Law No. 91/2024):** Covers the fundamental rights of employees (working hours, leave, protection during pregnancy, anti-discrimination). Recent amendments (2024) updated certain provisions regarding severance pay and enforcement rules.
- **Social Policy Laws (e.g., Law No. 121/2016 "On Social Care Services") and Family Protection Legislation:** Provide the framework for social services (daycare, community centers, social assistance), but these services often have limited capacity.
- **Law No. 10221, dated 04.02.2010, "On Protection from Discrimination":** Prohibits discrimination in employment based on gender, age, disability, political beliefs, etc. According to the Law on Protection from Discrimination (2010), any form of discrimination in the workplace is prohibited.
- **Law No. 10237, dated 18.02.2010, "On Safety and Health at Work":** Regulates the obligations of employers to ensure safe working conditions. Employers are required to provide a safe and healthy environment for employees (Law on Safety and Health at Work, 2010).

How can demographic movement be managed according to Albanian laws/policies to prevent labor market shortages?

Policy for Encouraging Birth Rates: One of the roots of the demographic problem is the low birth rate. The state can implement financial incentives, such as benefits for new families (parental leave, newborn support, subsidies) that are legally codified. Furthermore, demographic policy can be part of national strategies that also address infrastructure (nurseries, kindergartens) and social care for families (Altax, 2025).

Expansion and Improvement of Training and Education: Investing in education and specialized training for professions in high demand in the labor market is key. In this way, people who choose to stay or those who might return from emigration are better equipped for the market. According to the "Journal of Demographic Studies" regarding older age groups: it is reported that the employment of the elderly (e.g., over 65) is increasing, and this group can participate in the labor market if "lifelong learning" policies are created. Albanian laws could adapt policies for "continuing education" to ensure that workers, regardless of age, have the necessary skills (Academy of Sciences of Albania, 2025).

Inclusion of Older Age Groups in the Labor Market: With an aging population, one way to ease the labor shortage is to encourage the employment of pensioners or the elderly by legally incentivizing post-retirement work (e.g., tax breaks, flexible hours). This requires modifications to pension and social security laws, as well as the creation of legal mechanisms that allow for a combination of work + pension.

Active Migration Policy: Legal Regulation of Emigration and Re-migration: Albania can create programs for the return of emigrants (diaspora) with incentives for skills needed in the labor market. Migration laws should include measures that facilitate the return and integration of emigrants into the local economy (e.g., recognition of qualifications earned abroad, entrepreneurship funds for returnees). Likewise, national migration policy must be part of a larger demographic/employment strategy, such as the "National Strategy for Employment and Skills 2023–2030," which identifies emigration as a factor that reduces the active labor base (IOM, 2025).

Comparison of Albania with an EU country (Poland) regarding demographic movement

ALBANIA

Emigration is a key component of demographic movement: according to INSTAT, the population fell by 1.1% during 2022, primarily due to emigration. The ETF report emphasizes that youth emigration (especially of skilled workers) has considerable effects on the labor market in Albania¹⁵. Demographic aging is another challenge in Albania: INSTAT reports that the population over 65 is increasing, and this transformation is expected to impact the workforce and social spending. An analysis shows that the old-age dependency ratio is rising. **Law No. 108/2013 "On Foreigners"** is the primary legal instrument regulating residence and work permits for foreigners coming to Albania, including employment. Under this law, types of permits are regulated for: workers, self-employment, seasonal workers, highly qualified workers (**Blue Card AL**), etc.

Law No. 7703, dated 11.05.1993 "On Social Insurance", as amended, stipulates that even foreigners working in Albania are required to contribute to the social insurance system. ISSH (Social Insurance Institute) reports that insured persons, including foreign employees, pay contributions.

POLAND

Poland is facing a shrinking workforce and a narrowing portion of the working population: demographics and aging contribute to the reduction of the labor force. According to the OECD "International Migration Outlook" report, Poland has accepted labor and seasonal migration, which also affects the labor market.

In Poland, population aging is also a serious problem: as reported by the OECD, fertility is quite low, and the portion of the population over 65 is expected to increase significantly in the coming decades, bringing pressure on the labor market and pensions. An OECD report from 2013 predicts that the number of young workers will be smaller and the workforce will age. Poland has the **Social Insurance System Act (Act of 13 October 1998)** and the **Act of 17 December 1998 on Pensions from the Social Insurance Fund**. According to Polish social insurance provisions, drawing a pension does not absolutely prevent the elderly from working: a person who has reached the normal retirement age can continue to be an employer and receive a pension without limits in combination, under certain circumstances.

Poland also has a law on family benefits ("**Family and Nursing Benefits Act**") that supports families with children, which has a demographic impact as it can encourage birth rates and the participation of parents in the labor market.

GERMANY

Population aging increases the demand for workers in health services and social care; migration has been the primary short-term solution to maintain the workforce, but challenges regarding integration and pressure on pension schemes and public services remain. Germany faces a decline in birth rates and an aging population, but immigration (including refugees) has compensated for the shortages; however, pressure on the care sector and pension financing continues.

The **Skilled Immigration Act** is a law in Germany that aims to facilitate the entry and employment of qualified workers from third countries (non-EU) to address the labor force shortage and the effects of demographic change (population aging and decline in births) in the German labor market (Library of Congress 2023).

EU DIRECTIVES

The European Union does not have a "single directive" that deals exclusively with demographic movements in Albania; instead, it operates through expansion packages, funded projects, and policy frameworks (e.g., standards for migration management, integration, and labor market policies) that directly or indirectly affect demographic movements and the labor market in Albania. For example: The **European Commission's Albania Report 2025** mentions the National Strategy for Migration 2024–2030 and actions for labor market access.

MAIN DIRECTIVES

The role of European Union directives is fundamental in guiding national policies toward demographic changes. **Directive 2000/78/EC** prohibits discrimination in employment based on age and creates the basis for the inclusion of elderly persons in the labor market. **Directive 2019/1158/EU** on work-life balance encourages parental leave, work flexibility, and support for new families, indirectly influencing birth rate growth. Similarly, **Directive 2019/1152/EU** on transparent and predictable working conditions aims to increase worker security, especially for youth and seasonal workers, thereby reducing economic emigration. In Albania, these standards are partially reflected in the **Labor Code, Law No. 15/2019 "On Employment Promotion"**, and the **National Strategy for Employment and Skills 2023–2030**.

- **Directive 2004/38/EC:** On the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States. Albania does not implement it (as it is not yet a member state), but it must harmonize its laws regarding the circulation of workers, documentation, residency, social rights, etc.

- **Regulation (EU) No 492/2011:** On freedom of movement for workers within the Union. It defines rights to employment, equality of treatment, and access to work. Albania must harmonize systems for professional certifications, equality of access, and recognition of qualifications.

- **Directive 2014/54/EU:** Measures to facilitate the exercise of rights conferred on workers in the context of freedom of movement for workers. It defines enforcement mechanisms—compliance affects Albanian policies for labor market administration.

- **Directive 2005/36/EC (amended by 2013/55/EU):** Recognition of regulated professions. Albania has begun approximation within the framework of professionals who migrate (doctors, nurses, engineers).

Conclusion

Demographic movements in Albania—particularly the decline in birth rates, continuous youth emigration, and population aging—are becoming the greatest structural challenge for the labor market and the country's economic development. Analysis shows that the shrinkage of the active-age population has created significant labor shortages, lowered productive potential, and increased pressure on the pension system and social services. Reports from international institutions such as the ILO, OECD, and UNFPA emphasize that Albania is entering a phase where the negative impacts of demographic changes will become increasingly pronounced in the coming decades if integrated economic, social, and legal measures are not taken.

Although the Albanian legal framework, including employment promotion laws, the Labor Code, and social care policies, attempts to address some of these challenges, it remains insufficient to compensate for the deep effects of population shrinkage. Current policies require a more coordinated approach, with greater investment in supporting new families, increasing birth rates, managing emigration, improving the quality of professional education, and the long-term inclusion of the elderly and the diaspora in the labor market. The European Union has established a series of directives that Albania must follow to prevent mass demographic shifts.

References

- INSTAT. (2024). *Population and Housing Census 2023*. Institute of Statistics of Albania. <https://www.instat.gov.al>
- UNFPA. (2023). *Report on population aging and migration in Albania*. United Nations Population Fund. <https://www.unfpa.org>
- INSTAT. (2023). *Demographic statistics of Albania*. Institute of Statistics. <https://www.instat.gov.al>
- Monitor.al. (2025). *The rapid decline in the working-age population begins*. Retrieved from <https://monitor.al/en/The-rapid-decline-in-the-working-age-population-begins>
- Bank of Albania. (2023). *Annual Report 2023*. Bank of Albania. Retrieved from <https://www.bankofalbania.org>
- International Labour Organization (ILO). (2022). *Long-term care for the elderly in Albania: Challenges and key policy issues*. ILO.
- ILOSTAT. (n.d.). *Albania — Country profile*. International Labour Organization. <https://ilostat.ilo.org/data/country-profiles/alb/>
- OECD. (2022). *Labour migration in the Western Balkans: Mapping patterns, addressing challenges and reaping benefits*. OECD Publishing.
- Republic of Albania. (2023). *On some additions and changes to Law No. 15/2019 "On employment promotion" (Law No. 47/2023)*. Official Gazette. <https://qbz.gov.al>
- Republic of Albania. (1995/2024). *Labor Code of the Republic of Albania (Law No. 7961, as amended, including Law No. 91/2024)*. Official Gazette. <https://qbz.gov.al>
- Republic of Albania. (2016). *Law No. 121/2016 "On social care services in the Republic of Albania"*. Refworld. <https://www.refworld.org>
- Prime Minister's Office of the Republic of Albania. (2018). *Increasing the baby bonus (baby bonus)*. <https://www.kryeministria.al>
- Altax. (2025, February 4). *Facing the double Albanian challenge: Population aging and emigration*. Ekofin.
- Academy of Sciences of Albania. (2025, October 10). *Second International Conference "Demographic Changes and Labor Market Dynamics" – findings and recommendations*. ASHAK.
- IOM Albania & Government of Albania. (2024). *National Strategy for Migration in Albania (National Strategy)*.
- European Training Foundation (ETF). (2021). *How migration, human capital and the labour market interact in Albania*. ETF.
- INSTAT. (n.d.). *Population – Albania (Statistical data)*. Institute of Statistics.
- ISSH (Social Insurance Institute). (n.d.). *Legislation: Law No. 7703, dated 11.05.1993 "On Social Insurance", as amended*.
- OECD. (2015). *Ageing and employment policies – Poland 2015*. OECD Publishing.
- SpringerLink. *Migrants' Access to Social Protection in Poland*. (Chapter on pensions and social insurance).
- Gov.pl (Poland). (n.d.). *Old-age pension – step by step*. Your Europe / ZUS.
- Refworld. (1996). *Poland: Family and Nursing Benefits Act*. Refworld.
- Directorate-General for Enlargement and Neighbourhood. (2025, November 4). *Albania Report 2025*. European Commission. <https://enlargement.ec.europa.eu>
- International Organization for Migration — IOM Albania. (2024). *National Strategy for Migration 2024–2030 and Action Plan 2024–2026 (eng)*. <https://albania.iom.int>

ALTERNATIVE DISPUTE RESOLUTION IN THE DIGITAL ERA: A NEW FRONTIER FOR CONSUMER PROTECTION

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1. Introductory remarks. ADR in the European regulatory framework

Alternative dispute resolution, commonly referred to by the acronym ADR¹²⁸, has acquired increasing prominence as a mechanism for safeguarding consumers within the market environment. It is generally understood as an extrajudicial or non-adjudicative procedure aimed at resolving disputes between parties without recourse to a determination by courts of general jurisdiction. While, across different legal systems, such mechanisms are governed by diverse practices and methodologies, they exhibit a set of constant defining features, including procedural expediency, flexibility, limited formality, and reduced economic burden.

Resolutions developed within dispute settlement fora through instruments other than formal litigation are not primarily intended to adjudicate the dispute; rather, they seek to restore dialogue between the parties¹²⁹.

In the United States, ADR assumes the form of a heterogeneous set of practices characterised by their common objective of resolving conflicts without judicial determination, being grounded in the parties' autonomy to dispose of their disputes¹³⁰. These mechanisms are informal, accessible, rapid, and flexible; they enhance access to justice and are best understood not as alternatives, but as appropriate, amicable, or complementary mechanisms to adjudication.

In this respect, it should be recalled that ADR received explicit recognition in the context of the so-called Pound Conference of 1976, organised by the American Bar Association. However, it was only in 1998 that the United States Congress enacted the Alternative Dispute Resolution Act¹³¹, which requires “*all federal trial Courts to implement ADR programs for litigants and allows Courts to mandate participation in those programs. In order for Court administrators to implement the Act successfully, they must reconcile the new paradigm of justice inherent in ADR with the traditional adjudicative paradigm of justice that currently guides the courts*”¹³².

¹²⁸ The doctrine on this subject is vast; see R. Venkataraghavan, *Beyond the Courtroom: The Essential Role of Expert Determination in Alternative Dispute Resolution*, in *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, n. 1/2026; M. Karaboue, *Beyond the courtroom: evaluating alternative dispute resolution in medical liability cases*, in *Amministrativ@mente*, n. 1/2025; N. Soldati, *L'Arbitro Assicurativo (AAS): il nuovo pilastro ADR delle Autorità di regolazione del mercato*, in *Contratto e Impresa*, n. 3/2025; J. Gal, *On Union Law Concerning Alternative Dispute Resolution Methods with Regard to Insurance Disputes*, in H. Heiss, M. Lorenzon, A. C. Nabholz, M. Ostrowska, (eds) *Insurance Ombudsman Schemes. AIDA Europe Research Series on Insurance Law and Regulation*, Springer, Cham, 2025.

¹²⁹ B. Bertarini, *Soluzione alternativa delle controversie e mercati digitali: prime osservazioni*, in *Innovazione & Diritto*, n. 2/2024, p. 2. See also G. Alpa, *Riti alternativi e tecniche di risoluzione stragiudiziale delle controversie in diritto civile*, in *Politica del Diritto*, n. 3/1997.

¹³⁰ T. E. Frosini, *Un diverso paradigma di giustizia: le alternative dispute resolution*, in *Rassegna Forense*, n. 1/2011, p. 329.

¹³¹ See M. A. Nazir, M. F. Khan, H. H. Awan, M. Amjad, *Conceptualizing the Alternate Dispute Resolution Models in the Contemporary World*, in *Advance Social Science ArchiveJournal*, n. 1/2025, p. 999.

¹³² C. Crowne, *The Alternative Dispute Resolution Act of 1988: implementing a new paradigm of justice*, in *New York Law Review*, vol. 76/2001, p. 1769.

Rather than identifying a prevailing and a losing party, ADR mechanisms aim at the restoration of the underlying social relationship¹³³. Their primary objective is to re-establish a communicative channel enabling the parties to overcome direct confrontation; it is precisely in this sense that ADR constitutes a fundamental mechanism for consumer protection within market dynamics¹³⁴.

The public law regulatory framework established at the European Union level finds its primary legal basis in Article 81(1) and (2)(g) of the Treaty on the Functioning of the European Union¹³⁵, which, with a view to ensuring the proper functioning of the internal market, provides that the European Parliament and the Council may adopt measures aimed at fostering “*the development of alternative methods of dispute settlement*”.

From a historical perspective, reference must be made to the Green Paper of 16 November 1993, entitled “*Access of consumers to justice and the settlement of consumer disputes in the Single Market*”¹³⁶, as well as to Commission Recommendation No. 257 of 30 March 1998, “*on the principles applicable to the bodies responsible for out-of-court settlement of consumer disputes*”¹³⁷.

Taken together, these instruments establish a reference framework for consumers within the single market, highlighting “*the need to boost consumer confidence in the functioning of the internal market and consumers’ scope for taking full advantage of the possibilities offered by the internal market, including the possibility for consumers to settle disputes in an efficient and appropriate manner through out-of-court or other comparable procedures*”¹³⁸.

Thus, “*the European approach to consumer rights enforcement allocates consumer disputes to a network of extrajudicial entities, both public and private. Some authors doubt this system will compensate for the inefficiencies of justice in the courts in dealing with the increase in consumer disputes. Eidenmüller and Engel believe this to be a ‘detrimental development’ of consumer rights protection, sidelining State courts and privileging efficiency over judicial scrutiny and the observance of due process standards. In the eyes of the authors, it is outright contradictory to leave the enforcement of consumer rights, aimed to correct market failures, to private bodies acting according to the same market logic. Such ADR entities operate outside of the procedural safeguards of the court system, and they do not necessarily have elevated legal competencies, features that may ultimately frustrate the enforcement of the sophisticated EU consumer law apparatus. Silberzahn proves to be more moderate and, although she does not believe privatisation always leads to better service, she suggests evaluating the ADR model upon consumer satisfaction to determine whether privatisation is a suitable strategy*”¹³⁹.

In implementation of these principles, Directive 2013/11/EU was adopted on 21 May 2013 in order to ensure consumers’ access “*to high-quality ADR procedures across the Union and in*

¹³³ M. Ramajoli, *Interesse generale e rimedi alternativi pubblicistici*, in *Rivista Diritto processuale amministrativo*, n. 2/2015, p. 490.

¹³⁴ On this point, see S. Cassese, *La nuova costituzione economica*, Laterza, Roma-Bari, 2021, p. 106.

¹³⁵ See R. Bottner, H. J. Blanke (eds), *Treaty on the Functioning of the European Union - A Commentary*, Springer, Cham, 2024.

¹³⁶ COM (93) 576.

¹³⁷ Commission Recommendation of 30 March 1998 *on the principles applicable to the bodies responsible for out-of-court settlement of consumer disputes*.

¹³⁸ Whereas 1, Commission Recommendation of 30 March 1998 *on the principles applicable to the bodies responsible for out-of-court settlement of consumer disputes*.

¹³⁹ S. Voet, S. Caruso, A. D’Agostino, S. Dethier, *Recommendations from academic research regarding future needs of the EU framework of the consumer Alternative Dispute Resolution (ADR)*, JUST/2020/CONS/FW/CO03/0196, June 2022, p. 5.

*virtually all retail sectors, regardless of whether the dispute is domestic or cross-border and whether the purchase was made online or offline”*¹⁴⁰.

The Directive thus delineates the scope and establishes the minimum requirements of the sector, ensuring a uniform level of protection across ADR procedures addressed to consumers¹⁴¹.

2. Alternative dispute resolution and the EU Digital Single Market

The evolution of justice systems has acquired renewed centrality in recent years, particularly when considered in light of the vast volume of transactions that characterise the digital marketplace on a daily basis¹⁴².

The digital transition itself opens up new scenarios, marking profound, and at times radical¹⁴³, transformations. Within this emerging context, consumer protection assumes increasing relevance and urgency, thus requiring a careful assessment of new digital tools capable of ensuring the effective enforcement of consumer rights beyond traditional judicial pathways¹⁴⁴. The adoption of two new European Union Regulations — one concerning the single market for digital services (*Digital Services Act*)¹⁴⁵ and the other relating to digital markets (*Digital Markets Act*)¹⁴⁶ — has laid the foundations for new trajectories of economic development within the digital landscape. The Digital Services Act emphasises that “[i]nformation society services and especially intermediary services have become an important part of the Union’s

¹⁴⁰ Report from the Commission to the European Parliament, the Council and the European Economic and Social Committee, COM (2023) 648, 17.10.2023, *on the application of Directive 2013/11/EU of the European Parliament and of the Council on alternative dispute resolution for consumer disputes and Regulation (EU) No 524/2013 of the European Parliament and of the Council on online dispute resolution for consumer disputes*.

¹⁴¹ M. Angelone, *La “degiurisdizione” della tutela del consumatore*, in *Rassegna di diritto civile*, n. 3/2016, p. 744.

¹⁴² See for all, B. Bertarini, *European Union Digital Single Market. Legal Framework and Challenges*, Franco Angeli, Milano, 2023.

¹⁴³ In this regard, reference is made to the observations of S. Kraus, K. Vonmetz, L. Bullini Orlandi, A. Zardini, C. Rossignoli, *Digital entrepreneurship: The role of entrepreneurial orientation and digitalization for disruptive innovation*, in *Technological Forecasting & Social Change*, n. 193/2023, p. 2, where the Authors, reconstructing a definitional framework, state that “*disruptive innovation can be roughly divided into the two categories of low-end and new-market disruption (Yu and Hang Chieh, 2008), and is a process that first begins in a niche market (Petzold et al., 2019. Low-end disruption presents a low-cost and reduced-quality alternative to already available products or services but provides no further performance progress (Henderson, 2006). In contrast, new-market disruption presents functionality to customers in a new way (i.e., a product or service with different features and performance attributes from those of existing products or services) (Reinhardt and Gurtner, 2011). With time, disruptive innovation comes to be demanded by mainstream customers, who initially rejected the innovation (Schmidt and Druehl, 2008). Therefore, some scholars agree that disruptive innovations develop new markets and new functionalities, which in turn disrupt existing industries (Adner, 2002; Charitou and Markides, 2003; Christensen and Bower, 1996; Danneels, 2004; Gilbert, 2003). This conceptualization is found in Schumpeter’s (1942) theory of economic change with the first interpretation of ‘creative destruction’, which considers the innovation process as ‘incessantly destroying the old one, incessantly creating a new one’*”. Similarly, C. P. Nguyen, C. Schinckus, Q. B. Nguyen, D. Thuy Le Tran, *Digitalization and informal economy: a global evidence of internet usage*, in *Economia e Politica Industriale. Journal of Industrial and Business Economics*, n. 1/2024.

¹⁴⁴ See for all, M. A. Stefanelli, *Mercato, consumatori digitali, giustizia predittiva. Le recenti proposte di revisione della normativa europea in materia di soluzione alternativa delle controversie*, in *Percorsi costituzionali*, n. 2/2023.

¹⁴⁵ Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 *on a Single Market For Digital Services and amending Directive 2000/31/EC*. See C. Cauffman, C. Goanta, *A New Order: The Digital Services Act and Consumer Protection*, in *European Journal of Risk Regulation*, n. 4/2021.

¹⁴⁶ Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 *on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828*. See P. Manzini, *Il digital market act decodificato*, in M. Vellano, P. Manzini (a cura di), *Unione europea 2020 - I dodici mesi che hanno segnato l'integrazione europea*, CEDAM, Milano, 2021.

economy and the daily life of Union citizens”¹⁴⁷; at the same time, Member States “are increasingly introducing, or are considering introducing, national laws on the matters covered by this Regulation, imposing, in particular, diligence requirements for providers of intermediary services as regards the way they should tackle illegal content, online disinformation or other societal risks”¹⁴⁸.

Similarly, the Digital Markets Act highlights that digital markets play “an increasingly important role in the economy, in particular in the internal market, by enabling businesses to reach users throughout the Union, by facilitating crossborder trade and by opening entirely new business opportunities to a large number of companies in the Union to the benefit of consumers in the Union”¹⁴⁹.

Within this framework, the growing relevance of digital markets and services — and digitalisation more broadly — is reshaping the conventional relationship between economic activity and consumers.

Moreover, subsequent strategic analyses conducted at the EU level — including the Letta¹⁵⁰, Draghi¹⁵¹ and Niinistö¹⁵² reports, as well as the Commission communication “A Competitiveness Compass for the EU”¹⁵³, — “also make the point that a cutting edge digital network infrastructure is critical for the future competitiveness of the EU economy, security and social welfare. The availability of high-quality, reliable and secure connectivity for end users and for key economic sectors is a must”¹⁵⁴.

To this end, alongside the aforementioned legislative acts, the recent Proposal for a Regulation of the European Parliament and of the Council on digital networks, dated 26 January 2026, further complements the European Union’s regulatory framework in the field of consumer protection. Accordingly, “[w]hile maintaining a high level of consumer protection, the DNA proposal simplifies and further harmonises the sector-specific rules for end-user protection in the area of electronic communications. The proposal is fully in line with the Digital Decade Policy Programme, which outlines a vision for Europe’s digital transformation until 2030, by designing the regulatory framework in such a way as to achieve secure and sustainable digital infrastructures”¹⁵⁵.

The new challenges facing the European legislator call for an update of the regulatory framework established in 2013. Indeed, it has emerged that Directive 2013/11/EU “does not cater well for disputes resulting from new consumer market trends. Indeed, EU consumers are

¹⁴⁷ Recital 1 of Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services.

¹⁴⁸ Recital 2 of Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services.

¹⁴⁹ Recital 1 of Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector.

¹⁵⁰ E. Letta, *Much more than a market. Speed, security, solidarity Empowering the Single Market to deliver a sustainable future and prosperity for all EU Citizens*, presented to the European Council on 18 April 2024.

¹⁵¹ M. Draghi, *The future of European competitiveness, Part. A) A competitiveness strategy for Europe*, September 2024.

¹⁵² S. Niinistö, *Safer Together Strengthening Europe’s Civilian and Military Preparedness and Readiness*, of 20 March 2024.

¹⁵³ European Commission, COM (2025) 30, 29 January 2025, *A Competitiveness Compass for the EU*.

¹⁵⁴ Proposal for a Regulation of the European Parliament and of the Council, COM (2026) 16, 21.1.2026, on digital networks, amending Regulation (EU) 2015/2120, Directive 2002/58/EC and Decision No 676/2002/EC and repealing Regulation (EU) 2018/1971, Directive (EU) 2018/1972 and Decision No 243/2012/EU (Digital Networks Act), p. 1.

¹⁵⁵ Proposal for a Regulation of the European Parliament and of the Council, COM (2026) 16, 21.1.2026, on digital networks, amending Regulation (EU) 2015/2120, Directive 2002/58/EC and Decision No 676/2002/EC and repealing Regulation (EU) 2018/1971, Directive (EU) 2018/1972 and Decision No 243/2012/EU (Digital Networks Act), p. 3.

purchasing much more online including from non-EU traders. Unfortunately, this goes in parallel with an increased exposure to unfair practices - through online interfaces - that materially distort or impair, either on purpose or in effect, the ability of recipients of the service to make autonomous and informed choices or decisions (dark patterns), hidden advertising, fake reviews, distorted price presentations or lack of important pre-contractual information”¹⁵⁶.

Furthermore, “[i]n 2019, the Commission published a report on the implementation of Directive 2013/11/EU and Regulation (EU) No 524/2013 of the European Parliament and of the Council which revealed that Directive 2013/11/EU has led to increased coverage of consumer markets by quality ADR entities throughout the Union. However, the report also identified that consumer and business uptake of ADR procedures was lagging behind in some sectors and in some Member States. One reason for this was the low level of awareness on the part of consumers and traders about such procedures in Member States where they had been recently introduced. Another reason was the lack of trust of consumers and traders in unregulated ADR entities. Data provided by national competent authorities in early 2022, as well as the evaluation of the implementation of Directive 2013/11/EU conducted in 2023, suggest that the uptake of ADR remained relatively stable, apart from a small increase in the number of complaints related to the COVID-19 pandemic. Most stakeholders consulted in the context of that evaluation confirmed that the lack of awareness and understanding of ADR procedures by consumers, low engagement by traders, gaps in ADR coverage in certain Member States, high costs and complex national ADR procedures, as well as differences in the competences of ADR entities are frequent factors hindering the uptake of ADR procedures. There are additional barriers in cross-border ADR procedures, such as the use of more than one language and the lack of knowledge of the applicable law, as well as specific access difficulties for vulnerable consumers”¹⁵⁷.

3. The amendment of Directive 2013/11/EU: Directive 2025/2647

Thus, “[t]he complexity of consumer disputes has evolved significantly since the adoption of Directive 2013/11/EU. The digitalisation of goods and services and the growing importance of e-commerce and digital advertising in the conclusion of consumer contracts have resulted in an increased number of consumers being exposed to misleading online information and manipulative interfaces preventing them from making informed purchasing decisions. It is, therefore, necessary to clarify that contractual disputes arising from the sale of goods or services include disputes relating to digital content and digital services”¹⁵⁸ has made it necessary for the European Union to intervene through Directive 2025/2647 of 30 December 2025.

The new legislative framework “should cover, for example, situations arising from the pre-contractual phase where a contract has been concluded between a consumer and a trader, such as where a consumer concludes a contract based on misleading advertisement in relation to a specific price promotion, which falls within the scope of Directive 2005/29/EC of the European Parliament and of the Council. Other examples include situations related to the provision of compulsory pre-contractual information provided for in Directive 2011/83/EU of the European

¹⁵⁶ Proposal for a Directive of the European Parliament and of the Council, COM (2023) 649, 17.10.2023, amending Directive 2013/11/EU on alternative dispute resolution for consumer disputes, as well as Directives (EU) 2015/2302, (EU) 2019/2161 and (EU) 2020/1828, p. 1.

¹⁵⁷ Recital 2 of Directive (EU) 2025/2647 of the European Parliament and of the Council, of 16 December 2025, amending Directive 2013/11/EU on alternative dispute resolution for consumer disputes and amending Directives (EU) 2015/2302, (EU) 2019/2161 and (EU) 2020/1828 following the discontinuation of the European Online Dispute Resolution Platform.

¹⁵⁸ Recital 4 of Directive (EU) 2025/2647.

Parliament and of the Council, the right to price transparency in air fares and rates provided for in Regulation (EC) No 1008/2008 of the European Parliament and of the Council, the right to receive pre-journey information laid down in Regulation (EU) 2021/782 of the European Parliament and of the Council, the right to receive transparent information on retail conditions for roaming calls and SMS messages laid down in Regulation (EU) 2022/612 of the European Parliament and of the Council, or the provision of pre-contractual information related to package travel provided for in Directive (EU) 2015/2302 of the European Parliament and of the Council”¹⁵⁹.

The reform further provides that “[d]igital content and digital services are often supplied online under contracts pursuant to which the consumer does not pay a price but provides the trader with personal data. Directive 2013/11/EU currently applies only to contracts for which the consumer pays or undertakes to pay a price. Therefore, it excludes contracts for which the consumer provides personal data to the trader and does not pay a price. Given that there are contracts where the consumer provides or undertakes to provide personal data instead of paying a price, the definitions of ‘sales contract’ and ‘service contract’ should be adapted and the definitions of ‘goods’, ‘digital content’ and ‘digital service’ should be added”¹⁶⁰ and that “[t]o provide effective assistance to consumers and traders in cross-border disputes, it is necessary to ensure that Member States designate ADR contact points responsible for clearly defined tasks. European Consumer Centres (‘ECCs’) are well placed to perform such tasks, as they are specialised in assisting consumers who have issues with their cross-border purchases, but Member States should also be able to choose other bodies with relevant expertise. Those designated ADR contact points should be communicated to the Commission and should form part of the network to be created by the Commission”¹⁶¹.

Indeed, confirming this approach, Article 1 of Directive 2025/2647 amends Article 5 of Directive 2013/11 by replacing paragraph 2 with the following wording: “Member States shall ensure that ADR entities: (a) maintain an up-to-date website which provides the parties with easy access to information concerning the ADR procedure, and which enables consumers to submit complaints and the requisite supporting documents online in a traceable manner; (b) enable consumers to choose whether to submit complaints and other supporting documents and to access ADR in a digital or a non-digital format; (c) where they offer digital ADR procedures, provide them through easily accessible and inclusive tools; (d) where automated means are used in the ADR decision-making process: (i) inform the parties in advance, in a clear, comprehensible and easily accessible way about their use; and (ii) ensure that the parties have the right to request that the outcome of the ADR procedure be reviewed by a natural person from the ADR entity meeting the requirements of Article 6(1)”.

4. Final remarks: Challenges and opportunities

In conclusion, ADR may be regarded as a significant instrument for the protection of consumers, while also serving as a cornerstone of a renewed European policy of “*Consumerism in the Digital Age*”¹⁶².

However, the challenges arising from digitalisation extend beyond the considerations outlined above. In this respect, the increasing reliance on ever more sophisticated software and

¹⁵⁹ Recital 6 of Directive (EU) 2025/2647.

¹⁶⁰ Recital 13 of Directive (EU) 2025/2647.

¹⁶¹ Recital 33 of Directive (EU) 2025/2647.

¹⁶² Regarding this study see E. M. Artigas, A. Ahmed, *The Rise of Digital Consumerism: Implications for Marketing Strategy*; in S. Lee, T. Tharpe, E. M. Artigas (eds) *Strategic Marketing Tactics*, GBP Publications, London, 2025; E. Akar, *Digital consumerism in times of crisis: exploring the shift in online shopping behaviour*, in *British Food Journal*, n. 9/2024; M. Zerik, *The Influence of Neoliberalism and Consumerism on Digital Identity Formation and Representation*, in *Journal of Information Ethics*, n. 1/2024.

algorithms enables the development of genuine predictive justice systems, driven by increasingly complex forms of generative artificial intelligence, capable of operating not only within the traditional judicial framework but also—and perhaps even more effectively—through the more flexible mechanisms of ADR.

Nevertheless, notwithstanding the commendable efforts of the European legislator, and pending practical experience as to whether the newly introduced rules will effectively deliver tangible benefits for both economic operators and consumers, it is submitted that, in order for such instruments to function effectively, it is necessary, on the one hand, to enhance consumer trust in the operation of ADR systems and, on the other hand, to implement policies aimed at bridging the digital divide¹⁶³, which still constitutes a significant barrier for many consumers to forms of access to justice that, conversely, represent a fundamental benchmark for the pursuit of sustainable development, as highlighted by Goal 16¹⁶⁴ of “*The 2030 Agenda for Sustainable Development*”¹⁶⁵ of the United Nations, entitled “*Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels*”.

¹⁶³ See F. Martin, E. Ceviker, T. Gezer, *From digital divide to digital equity: Systematic review of two decades of research on educational digital divide factors, dimensions, and interventions*, in *Journal of Research on Technology in Education*, n. 2/2026 and k. Duan, *Digital divide or digital dividend: the impact of digital economy development on the elderly*, in *Behaviour & Information Technology*, n. 2/2026.

¹⁶⁴ On this point, see D. Fraisl, M. Neves, O. Seidu, C. K. Darpoh, A. Basnyat, F. Usheva, B. Tungbani, D. Ankamah, L. See, A. Gadgil, *Leveraging Citizen Data to Improve Public Services and Measure Progress Toward Sustainable Development Goal 16*, in *Sustainable Development*, n. 4/2025.

¹⁶⁵ The legal doctrine on the subject of *The 2030 Agenda for Sustainable Development* is ample, more recently, see Y. Zhou, L. Yu, *Overall Progress on the 2030 Agenda for Sustainable Development*, in Center for International Knowledge on Development (CIKD) (eds) *Global Development Report 2024*, Springer, Singapore, 2025.

ALGORITHMIC AGE TARGETING IN ALBANIA: UNFAIR MARKETING PRACTICES AND THE GAP WITH EU CONSUMER LAW

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Abstract

The digitalization of advertising has transformed the way businesses identify, segment, and influence consumers. Age has become one of the most important criteria for commercial targeting, particularly in digital environments where advertising is shaped by behavioral data, platform design, influencer communication, and personalized marketing techniques. While age-based targeting may improve the relevance of commercial communication, it also raises legal and ethical concerns when it exploits the vulnerabilities of specific consumer groups, especially adolescents, young adults, and older consumers.

This paper examines age-targeted marketing practices in Albania and assesses whether such practices may constitute unfair commercial practices under Albanian and European Union consumer protection law. Using a mixed-methods research design, the study analyzes 412 advertisements collected between January 2023 and June 2025 from television, print media, outdoor advertising, Facebook, Instagram, TikTok, mobile interfaces, and e-commerce campaigns. In addition, 28 semi-structured interviews were conducted with consumers aged 18–70 in order to evaluate consumer perception, understanding, and perceived pressure in relation to age-targeted advertising.

The findings identify three recurring categories of problematic practices: manipulative urgency and unsubstantiated claims directed at older consumers; dark patterns, hidden fees, scarcity messages, and default options targeting younger users; and insufficient disclosure of sponsored content in influencer marketing addressed to adolescents and young consumers. The analysis shows that although Albanian consumer protection law prohibits misleading and aggressive commercial practices, it does not expressly address age-based vulnerability in digital environments, nor does it provide specific rules on dark patterns, influencer disclosure, algorithmic targeting, or behavioral manipulation.

The paper argues that Albania’s consumer protection framework should be updated to reflect the realities of digital markets and to align more effectively with contemporary EU standards. It proposes legislative amendments, clearer disclosure obligations, and a risk-based supervisory model through an Age-Vulnerability Risk Matrix. The study contributes to consumer law and digital regulation scholarship by offering empirical evidence from an EU candidate country undergoing both legal approximation and digital market transformation.

Keywords: Unfair Commercial Practices; Age-based Targeting; Digital Marketing; Consumer Vulnerability; Dark Patterns; Influencer Marketing; Albania; EU Consumer Law.

JEL Classification: K12; K13; K20; K23; L81; M31; D18.

1. Introduction

Advertising has historically relied on demographic segmentation. However, digital markets have changed both the intensity and the legal relevance of this practice. Age-based targeting is no longer limited to broad assumptions about consumer groups, such as advertising pension products to older adults or fashion products to younger users. In digital environments, age is increasingly combined with behavioral data, browsing history, device use, location, engagement patterns, purchasing behavior, and platform analytics. This allows traders and platforms to identify not only who consumers are, but also when they may be more susceptible to persuasion (Calo, 2014; Yeung, 2017).

The problem is not age-based targeting as such. Such targeting may be legitimate where it provides relevant information, improves consumer choice, or adapts communication to the needs of a specific audience. The legal concern arises when age-based targeting becomes exploitative. This occurs when traders use age-related cognitive, emotional, social, or behavioral vulnerabilities to influence consumers in ways that materially distort their economic behavior (Helberger et al., 2021; Micklitz, 2021).

EU consumer law has progressively moved toward a more contextual understanding of vulnerability. Directive 2005/29/EC on unfair business-to-consumer commercial practices prohibits misleading and aggressive commercial practices and requires assessment from the perspective of the average consumer or, where relevant, the average member of a clearly identifiable vulnerable group (European Parliament and Council, 2005). The European Commission’s guidance on the Unfair Commercial Practices Directive confirms that consumer vulnerability may arise from age, infirmity, mental or physical condition, credulity, or other circumstances affecting the consumer’s ability to make an informed transactional decision (European Commission, 2021).

The Digital Services Act further strengthens the regulatory approach to digital manipulation by prohibiting online platforms from designing, organizing, or operating interfaces in a way that deceives, manipulates, or materially impairs users’ ability to make free and informed decisions (European Parliament and Council, 2022). This is particularly important because many unfair digital practices do not operate through false statements alone, but through the structure of the interface, the presentation of choices, default settings, and friction-based design (Luguri & Strahilevitz, 2021; OECD, 2022).

In Albania, the central legal instrument remains Law No. 9902/2008 “On Consumer Protection”, which prohibits unfair, misleading, and aggressive commercial practices (Albanian Parliament, 2008). However, the law was drafted before the current phase of algorithmic advertising, influencer marketing, dark patterns, mobile-first commerce, and platform-based behavioral profiling. As a result, several digital practices that may be problematic under EU standards remain insufficiently addressed in Albanian law.

This paper therefore asks: **To what extent do marketing practices in Albania exploit age-based vulnerabilities, and how does the current Albanian legal framework compare with EU consumer protection standards in digital markets?**

The article has four objectives. First, it develops a conceptual framework for understanding age-based vulnerability in consumer markets. Second, it presents empirical evidence on age-targeted marketing practices in Albania. Third, it compares Albanian law with EU consumer and digital regulation. Fourth, it proposes legislative and enforcement reforms, including an Age-Vulnerability Risk Matrix that may assist regulators in prioritizing supervision.

2. Conceptual Framework: Age, Vulnerability, and Digital Persuasion

Consumer vulnerability is not a fixed personal attribute. It is situational, relational, and market-dependent. A consumer may be capable in one transactional context but vulnerable in another,

particularly where information asymmetry, emotional pressure, technical complexity, or social influence are present (Helberger et al., 2021; Micklitz, 2021).

Age-related vulnerability may operate through at least four mechanisms.

First, **cognitive vulnerability** may arise where older consumers face complex terms, technical interfaces, small-print disclosures, or unverified claims related to health, financial security, or urgent opportunities. This does not mean that older consumers are inherently incapable. Rather, it means that certain marketing practices may take advantage of lower digital literacy, trust in traditional advertising, or reduced familiarity with online sales tactics (Bar-Gill, 2012; European Commission, 2021).

Second, **behavioral vulnerability** may affect young consumers who are highly active in digital environments but exposed to persuasive design. Countdown timers, pre-selected options, endless scrolling, gamified discounts, hidden fees, and subscription traps may push users toward decisions they would not otherwise make. These techniques are widely discussed in the literature as dark patterns or dark commercial patterns (Luguri & Strahilevitz, 2021; Mathur et al., 2019; OECD, 2022).

Third, **social vulnerability** is particularly relevant for adolescents and young adults exposed to influencer marketing. Sponsored content may appear as personal recommendation, lifestyle advice, entertainment, or peer communication. Where advertising disclosure is unclear, consumers may not understand the commercial nature of the message (Consumer Protection Cooperation Network, 2023; European Commission, 2023).

Fourth, **algorithmic vulnerability** emerges when platforms or traders use data-driven profiling to identify moments of susceptibility. Algorithmic advertising can intensify traditional consumer protection risks because the persuasive message is personalized, timed, optimized, and often invisible to regulators and consumers (Calo, 2014; Susser et al., 2019; Wachter, 2020).

The legal challenge is that traditional consumer law was designed around visible advertising claims, identifiable traders, and relatively linear transactions. Digital marketing, by contrast, often operates through fragmented, automated, and interface-driven systems. This makes unfairness harder to detect, document, and enforce (European Commission, 2024; Yeung, 2017).

3. Literature Review

The literature on unfair commercial practices has traditionally focused on misleading information, aggressive sales pressure, and the average consumer standard. More recent scholarship has expanded this analysis to digital markets, behavioral economics, platform design, and data-driven persuasion (Bar-Gill, 2012; Micklitz, 2021).

A first group of studies addresses the limits of the average consumer model. Scholars argue that the “average consumer” standard may not fully capture the reality of digital choice environments, where consumers are exposed to personalized pressure, attention capture, information overload, and behavioral manipulation (Helberger et al., 2021; Susser et al., 2019). Vulnerability should therefore be assessed dynamically, taking into account the design of the commercial environment and the characteristics of the targeted group.

A second strand of literature examines **dark patterns**. These are interface designs that make some choices easier and others more difficult, often nudging consumers toward purchases, subscriptions, data disclosure, or continued engagement. Research has identified recurring dark pattern categories, including obstruction, sneaking, urgency, scarcity, forced action, social proof, confirmshaming, hidden costs, and difficult cancellation (Luguri & Strahilevitz, 2021; Mathur et al., 2019). The OECD has similarly described dark commercial patterns as practices

that steer, deceive, coerce, or manipulate consumers into choices that may not be in their best interests (OECD, 2022).

A third body of literature focuses on **children, adolescents, and influencer marketing**. Young consumers may struggle to distinguish organic content from commercial endorsement, especially when advertising is embedded in entertainment formats. Influencers often rely on perceived authenticity, emotional identification, and parasocial relationships. These dynamics can weaken the effectiveness of traditional disclosure mechanisms, especially when labels such as “ad” or “sponsored” are hidden, ambiguous, or presented in a language not understood by the target audience (Consumer Protection Cooperation Network, 2023; European Commission, 2023).

A fourth line of research concerns **older consumers and digital literacy**. Older adults may be particularly exposed to misleading urgency claims, health-related advertising, financial scams, and exaggerated product benefits. The vulnerability is not biological or automatic; it is produced by the interaction between consumer characteristics and market practices (Bar-Gill, 2012; European Commission, 2021).

Finally, the literature on EU digital consumer law increasingly emphasizes the need for a systemic approach. The European Commission’s Digital Fairness Fitness Check found that existing EU consumer law remains important but faces challenges in dealing with harmful digital practices such as dark patterns, addictive design, influencer marketing, personalization, and subscription traps (European Commission, 2024). This policy development is particularly relevant for EU candidate countries such as Albania, where approximation with the *acquis* requires not only formal transposition but also practical enforcement capacity.

4. Methodology

This study uses a mixed-methods design combining quantitative content analysis and qualitative semi-structured interviews. The approach was selected because age-based unfair marketing cannot be fully understood through legal analysis alone. It requires empirical observation of advertising practices and consumer perception (Creswell & Plano Clark, 2018). The quantitative phase consisted of the collection and coding of 412 advertisements between January 2023 and June 2025. The sample included advertisements from national television channels, print media, outdoor advertising, Facebook, Instagram, TikTok, mobile advertising interfaces, and e-commerce pages. The dataset and methodological orientation follow the empirical structure of the initial draft, which identified online and offline advertising channels, consumer interviews, and age-based segmentation as the core research elements.

The sample focused on promotional content produced or distributed by high-visibility companies operating in Albania across several sectors, including telecommunications, retail, pharmaceuticals, financial services, food services, e-commerce, beauty products, and consumer services.

Each advertisement was coded according to the following variables:

media channel;

1. *product or service category;*
2. *explicit or implicit age-targeting indicators;*
3. *use of urgency or scarcity messages;*
4. *presence of health, financial, or performance claims;*
5. *presence of dark patterns or manipulative interface design;*
6. *use of influencer or native advertising;*
7. *clarity of sponsorship disclosure;*

reference to price, discounts, limited availability, or “last chance” language;

potential qualification as misleading, aggressive, or otherwise unfair under consumer protection standards.

A structured coding protocol was developed with reference to Directive 2005/29/EC, Albanian Law No. 9902/2008, the Digital Services Act, and European Commission guidance on unfair commercial practices (Albanian Parliament, 2008; European Commission, 2021; European Parliament and Council, 2005, 2022).

Two independent coders analyzed the material after a pilot calibration phase. Inter-coder reliability was measured using Krippendorff's Alpha, producing a coefficient of $\alpha = 0.81$, which indicates a high level of consistency (Krippendorff, 2019).

The second phase consisted of 28 semi-structured interviews with consumers aged 18–70. Participants were selected through purposive stratified sampling to ensure representation across four age groups: 18–24, 25–44, 45–59, and 60+. The interviews explored exposure to advertising, understanding of sponsored content, experience with urgency claims, trust in influencers and online sellers, perception of pressure or manipulation, awareness of consumer rights, and willingness to report unfair practices. The interviews were transcribed and analyzed through thematic analysis, following the approach developed by Braun and Clarke (2006).

The study complied with basic research ethics principles, including informed consent, confidentiality, anonymization, and voluntary participation. No personally identifiable data were retained.

5. Findings

5.1 Older Consumers and Manipulative Urgency Claims

The first major finding concerns advertisements directed at consumers aged 60+. These advertisements frequently involved health-related products, supplements, medical-adjacent services, financial products, and household products. The most common techniques were urgency claims, exaggerated effectiveness, testimonials, and emotional references to health, family, or security.

Several advertisements used expressions equivalent to “limited time”, “last opportunity”, “only today”, or “recommended for your age”. Such language may not be unlawful in itself. However, where it is combined with unsubstantiated claims, unclear evidence, or pressure to purchase immediately, it may materially distort the decision-making of older consumers. Under the logic of the Unfair Commercial Practices Directive, such practices should be assessed from the perspective of the average member of the targeted vulnerable group, rather than only from the perspective of a generic average consumer (European Parliament and Council, 2005; European Commission, 2021).

The interviews showed that older participants were more likely to rely on television, Facebook, and family-shared content. Some participants reported difficulty distinguishing between verified medical information, commercial claims, and personal testimonials. This suggests that consumer vulnerability is intensified where traditional trust-based advertising merges with digital amplification (Bar-Gill, 2012; Calo, 2014).

5.2 Young Consumers and Dark Patterns

The second major finding concerns users under 25, especially in mobile-first environments. Advertisements and digital sales interfaces targeting this group frequently used scarcity messages, gamified offers, pre-selected options, hidden fees, and countdown timers. In some cases, cancellation or refusal was more difficult than acceptance.

The most frequent dark patterns included countdown timers without clear evidence of genuine scarcity, “only a few left” claims, pre-ticked boxes for optional services, unclear subscription

renewal terms, hidden delivery or service fees revealed late in the process, buttons making acceptance visually easier than refusal, and complicated cancellation pathways.

These findings are consistent with broader international evidence on dark commercial patterns. Mathur et al. (2019) identified dark patterns at scale across online shopping websites, while Luguri and Strahilevitz (2021) demonstrated that dark patterns can significantly affect consumer decision-making. The OECD (2022) similarly notes that such practices exploit cognitive biases and interface friction in ways that may harm consumer autonomy.

5.3 Adolescents, Influencers, and Non-Disclosure of Sponsored Content

The third finding concerns influencer marketing. A significant number of social media promotions targeting adolescents and young consumers did not clearly disclose their commercial nature. In some cases, promotional content appeared as personal experience, entertainment, product review, or lifestyle recommendation.

Disclosure was often absent, placed at the end of the caption, written in a foreign language, hidden among multiple hashtags, or expressed through ambiguous terms. This weakens consumer understanding and may create the impression that the influencer’s recommendation is independent.

The European Commission has emphasized that influencer marketing must be transparent and that consumers should be able to identify commercial communications clearly (European Commission, 2023). Similarly, the Consumer Protection Cooperation Network has underlined that sponsored content should be disclosed in a clear, prominent, and understandable manner (Consumer Protection Cooperation Network, 2023).

6. Legal Analysis

6.1 Albanian Law No. 9902/2008

Albanian Law No. 9902/2008 establishes the general framework for consumer protection. It prohibits unfair commercial practices and regulates misleading and aggressive practices (Albanian Parliament, 2008). However, the Albanian framework presents several limitations in relation to age-based digital targeting.

First, the law does not expressly define age-based vulnerability in digital environments. While general provisions may be interpreted to protect vulnerable consumers, the absence of explicit language reduces legal certainty.

Second, the law does not specifically regulate dark patterns. Traditional concepts of misleading or aggressive practices may capture some manipulative designs, but many interface-based practices are difficult to classify under existing categories (Luguri & Strahilevitz, 2021; OECD, 2022).

Third, influencer marketing is not regulated with sufficient specificity. The law may address hidden advertising through general misleading practice provisions, but it lacks detailed disclosure standards adapted to social media environments (European Commission, 2023).

Fourth, the law does not contain a risk-based enforcement model for algorithmic targeting, platform advertising, or data-driven consumer manipulation. This creates a gap between the formal scope of consumer protection and the practical realities of digital markets.

6.2 EU Unfair Commercial Practices Directive

Directive 2005/29/EC remains the cornerstone of EU consumer protection against unfair business-to-consumer commercial practices. It prohibits practices that are contrary to professional diligence and materially distort or are likely to materially distort the economic behavior of the average consumer (European Parliament and Council, 2005).

The Directive also recognizes the need to assess practices from the perspective of a vulnerable group where the practice is directed at or likely to affect such a group. This is directly relevant to age-based targeting. Where a commercial practice is directed at older consumers, adolescents, or young adults, the legal assessment should not rely exclusively on a generic average consumer. It should consider the average member of the targeted age group (European Commission, 2021).

6.3 Digital Services Act

The Digital Services Act is particularly relevant because it moves beyond traditional advertising claims and addresses platform architecture. Article 25 prohibits online platforms from designing, organizing, or operating interfaces in a way that deceives or manipulates users or materially impairs their ability to make free and informed decisions (European Parliament and Council, 2022).

This provision is important for Albania’s approximation process because many harmful practices identified in the Albanian market are not merely misleading statements. They are interface-based practices. Examples include hard-to-find cancellation buttons, asymmetrical choices, hidden costs, and default consent. These practices correspond to what the literature describes as dark patterns or dark commercial patterns (Luguri & Strahilevitz, 2021; Mathur et al., 2019; OECD, 2022).

6.4 Digital Fairness Fitness Check and Future EU Reform

The European Commission’s Digital Fairness Fitness Check evaluated whether the Unfair Commercial Practices Directive, Consumer Rights Directive, and Unfair Contract Terms Directive remain adequate for protecting consumers in the digital environment (European Commission, 2024). The Fitness Check specifically concerns digital fairness and practices such as dark patterns, influencer marketing, personalization, and subscription traps.

For this reason, the paper should not state that a “Digital Fairness Act 2025” is already in force. A more accurate formulation is that the EU Digital Fairness Act is an emerging legislative initiative, following the 2024 Digital Fairness Fitness Check, intended to address gaps in the regulation of dark patterns, influencer marketing, addictive design, personalization, and other unfair digital practices (BEUC, 2025; European Commission, 2024).

7. Discussion

The findings show that Albania faces a double regulatory challenge. On the one hand, traditional unfair commercial practices remain present in television, print, outdoor advertising, and Facebook-based promotions. On the other hand, newer forms of digital manipulation are spreading through mobile interfaces, social media platforms, influencer marketing, and algorithmic advertising.

The most important gap is not the total absence of legal protection. Albanian law already prohibits misleading and aggressive practices (Albanian Parliament, 2008). The problem is that the existing legal categories were not designed for the specific structure of digital manipulation. A misleading advertisement may be assessed by examining its content. A dark pattern, by contrast, requires analysis of design, user flow, friction, defaults, choice architecture, and cumulative pressure (Luguri & Strahilevitz, 2021; OECD, 2022).

Similarly, influencer marketing does not always mislead through false statements. It may mislead by concealing the commercial relationship behind apparently personal content. This makes disclosure standards essential (Consumer Protection Cooperation Network, 2023; European Commission, 2023).

The empirical findings also show that age-based targeting should not be treated as a neutral marketing technique. The same commercial message may have different effects depending on the age group targeted, the medium used, and the consumer’s ability to understand the commercial nature of the communication (European Commission, 2021; Helberger et al., 2021).

For Albania, this issue is also connected to the broader EU approximation process. Consumer protection forms part of the *acquis* that candidate countries are expected to align with, not only through formal legislative transposition but also through effective enforcement, institutional capacity, and practical market supervision. In this regard, the regulation of digital unfairness should be treated as both a consumer protection issue and a market integrity issue.

8. Policy Recommendations

8.1 Amend Law No. 9902/2008 to Recognize Digital Age-Based Vulnerability

Albanian law should expressly recognize that consumer vulnerability may arise from age, digital literacy, platform design, and algorithmic targeting. This would be consistent with the logic of the Unfair Commercial Practices Directive and the European Commission’s interpretation of vulnerable consumers (European Parliament and Council, 2005; European Commission, 2021).

A possible amendment could state:

“In assessing whether a commercial practice is unfair, particular account shall be taken of whether the practice is directed at, or is likely to materially affect, a clearly identifiable group of consumers who are vulnerable due to age, digital literacy, health condition, economic insecurity, or limited ability to understand the commercial nature or consequences of the practice.”

8.2 Introduce Specific Rules on Dark Patterns

The law should include a provision prohibiting interface designs that deceive, manipulate, or materially impair consumers’ free and informed decision-making. This would align Albania more closely with Article 25 of the Digital Services Act (European Parliament and Council, 2022). It would also respond to the growing body of evidence showing that dark patterns can undermine consumer autonomy and produce economic harm (Luguri & Strahilevitz, 2021; Mathur et al., 2019; OECD, 2022).

8.3 Establish Clear Influencer Disclosure Standards

Albania should adopt binding or semi-binding guidance requiring influencer advertising to be clearly disclosed. Disclosure should be visible at the beginning of the post or video, understandable in Albanian, not hidden among hashtags, adapted to the platform format, and required whenever the influencer receives payment, gifts, discounts, commissions, or other benefits. This would be consistent with European guidance on influencer marketing transparency (Consumer Protection Cooperation Network, 2023; European Commission, 2023).

8.4 Adopt an Age-Vulnerability Risk Matrix

Regulators could use an Age-Vulnerability Risk Matrix to prioritize enforcement according to the age group targeted, the medium used, and the type of harm likely to occur. Risk-based enforcement is particularly useful in digital markets because harmful practices are numerous, fast-moving, and difficult to detect manually (Baldwin et al., 2012; European Commission, 2024).

Target group	Main risk	Typical channel	Regulatory priority
Adolescents	Hidden advertising, influencer pressure, social proof	TikTok, Instagram, YouTube	Very high
18–24	Dark patterns, subscription traps, hidden fees	Mobile apps, e-commerce, social media	High
25–44	Personalized pricing, misleading discounts, data-driven targeting	E-commerce, platforms	Medium-high
45–59	Financial and health-related claims	Facebook, TV, online portals	Medium
60+	Urgency, fear-based claims, unsubstantiated health/financial promises	TV, Facebook, print	Very high

8.5 Strengthen Enforcement Capacity

Regulatory authorities should develop digital monitoring capacity, including periodic sweeps of online advertising, monitoring of influencer campaigns, cooperation with platform providers, consumer complaint dashboards, publication of guidance for traders, and administrative sanctions for repeated non-disclosure or manipulative design. Such measures would support a more proactive model of consumer protection enforcement and would reduce the gap between legal rules and actual market practices.

9. Conclusion

This paper examined age-based marketing practices in Albania and assessed their compatibility with Albanian and European Union consumer protection standards. The analysis showed that age-targeted advertising is not problematic in itself, but it becomes legally and ethically concerning when it exploits age-related vulnerability through misleading claims, manipulative design, hidden commercial relationships, or algorithmic personalization.

The study identified three main categories of problematic practices in the Albanian market. Older consumers are more exposed to urgency-based claims, health-related representations, and financial or security-oriented messages. Younger users are more exposed to dark patterns, hidden fees, subscription traps, gamified offers, and default settings. Adolescents and young consumers are particularly affected by influencer marketing where the commercial nature of the content is not clearly disclosed.

The findings indicate that the current Albanian consumer protection framework provides a general basis for addressing misleading and aggressive commercial practices, but it does not sufficiently reflect the realities of digital markets. The law does not expressly regulate age-based digital vulnerability, dark patterns, influencer disclosure, or algorithmic targeting. This creates a regulatory gap between traditional consumer protection concepts and contemporary forms of digital persuasion.

Albania’s approximation with the EU acquis should therefore move beyond formal legislative alignment and include practical enforcement tools adapted to digital markets. Legislative reform should recognize digital vulnerability, prohibit manipulative interface design, require clear influencer disclosure, and introduce a risk-based supervisory model. The proposed Age-Vulnerability Risk Matrix offers a practical tool for prioritizing enforcement and identifying high-risk practices according to age group, medium, and type of consumer harm.

By focusing on Albania as an EU candidate country, the paper contributes to the broader debate on digital fairness, consumer vulnerability, and regulatory modernization in transitional markets. It shows that effective consumer protection in the algorithmic age requires not only updated legal provisions, but also institutional capacity, empirical monitoring, and a more contextual understanding of how consumers are influenced in digital environments.

References

1. Albanian Parliament. (2008). *Law No. 9902, dated 17.04.2008, on consumer protection*.
2. Baldwin, R., Cave, M., & Lodge, M. (2012). *Understanding regulation: Theory, strategy, and practice* (2nd ed.). Oxford University Press.
3. Bar-Gill, O. (2012). *Seduction by contract: Law, economics, and psychology in consumer markets*. Oxford University Press.
4. BEUC. (2025). *Towards the Digital Fairness Act*. The European Consumer Organisation.
5. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
6. Calo, R. (2014). Digital market manipulation. *George Washington Law Review*, 82(4), 995–1051.
7. Consumer Protection Cooperation Network. (2023). *Key principles on social media marketing disclosures*.
8. Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE.
9. European Commission. (2021). *Commission notice: Guidance on the interpretation and application of Directive 2005/29/EC concerning unfair business-to-consumer commercial practices in the internal market*. Official Journal of the European Union, C 526.
10. European Commission. (2023). *Influencer Legal Hub*.
11. European Commission. (2024). *Fitness check of EU consumer law on digital fairness SWD(2024) 230 final*.
12. European Parliament and Council. (1993). *Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts*. Official Journal of the European Communities.
13. European Parliament and Council. (2005). *Directive 2005/29/EC concerning unfair business-to-consumer commercial practices in the internal market*. Official Journal of the European Union.
14. European Parliament and Council. (2011). *Directive 2011/83/EU on consumer rights*. Official Journal of the European Union.
15. European Parliament and Council. (2016). *Regulation (EU) 2016/679: General Data Protection Regulation*. Official Journal of the European Union.
16. European Parliament and Council. (2019). *Directive (EU) 2019/2161 as regards the better enforcement and modernisation of Union consumer protection rules*. Official Journal of the European Union.
17. European Parliament and Council. (2022). *Regulation (EU) 2022/2065 on a single market for digital services and amending Directive 2000/31/EC*. Official Journal of the European Union.
18. Helberger, N., Lynskey, O., Micklitz, H.-W., Rott, P., Sax, M., & Strycharz, J. (2021). EU consumer protection 2.0: Structural asymmetries in digital consumer markets. *Journal of Consumer Policy*, 44, 525–544.
19. Krippendorff, K. (2019). *Content analysis: An introduction to its methodology* (4th ed.). SAGE.
20. Luguri, J., & Strahilevitz, L. J. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, 13(1), 43–109.
21. Mathur, A., Acar, G., Friedman, M. J., Lucherini, E., Mayer, J., Chetty, M., & Narayanan, A. (2019). Dark patterns at scale: Findings from a crawl of 11K shopping websites. *Proceedings of the ACM on Human-Computer Interaction*, 3(CSCW), 1–32.
22. Micklitz, H.-W. (2021). The politics of behavioural economics in consumer law. *Journal of Consumer Policy*, 44, 1–24.
23. OECD. (2022). *Dark commercial patterns*. OECD Digital Economy Papers.
24. Susser, D., Roessler, B., & Nissenbaum, H. (2019). Online manipulation: Hidden influences in a digital world. *Georgetown Law Technology Review*, 4(1), 1–45.
25. Wachter, S. (2020). Affinity profiling and discrimination by association in online behavioural advertising. *Berkeley Technology Law Journal*, 35(2), 367–430.

26. Yeung, K. (2017). Hypernudge: Big data as a mode of regulation by design. *Information, Communication & Society*, 20(1), 118–136.

COMMUNICATIONS AND APPROACHES TO ATTRACT SUITABLE JOB CANDIDATES

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Abstract

The development aims to explore different communication approaches that organizations can use to attract suitable job candidates.

The procedure to recruit candidates is important for the organization. It is based on an analysis of the strengths and weaknesses of the organization, the position or workplace, the way people search for and choose jobs.

It is determined the sources for recruiting candidates, which communications can be carried out with them and how to be selected appropriate communication channels.

The expected result of the study is to attract candidates who can effectively perform the proposed work. It is revealed some of the effective communication channels.

Introduction

Communication is a vital aspect of the recruitment process. It involves the exchange of information between the employer and potential candidates. Effective communication helps to attract suitable job candidates and ensure that they have a clear understanding of the job requirements, company culture, and overall expectations.

There are various approaches that employers can take to attract suitable job candidates. One effective approach is to create a comprehensive job description that outlines the skills, qualifications, and experience required for the role. The job description should also highlight the company's values, mission, and culture, to help potential candidates determine if they would be a good fit.

Another approach is to utilize various recruitment channels to reach a wider audience. This includes using job boards, social media platforms, and professional networks such as LinkedIn. Employers can also attend job fairs and networking events to connect with potential candidates in person.

Effective communication is crucial throughout the recruitment process, from the initial outreach to the final interview stage. Employers should keep candidates informed about the recruitment timeline, provide feedback throughout the process, and respond promptly to any questions or concerns. Overall, by utilizing effective communication and various recruitment approaches, employers can attract and hire suitable job candidates who align with their company culture and values.

In the present competitive job market, it is challenging for organizations to attract suitable candidates for their vacant positions. One way to address this issue is to develop effective communication strategies that will help reach potential candidates. A literature review can help identify the communication approaches that have been successful in attracting suitable job candidates.

Job Advertising

One of the most common communication approaches is job advertising. Job advertising can be done through various channels such as social media, job boards, company websites, and newspapers. Job advertisements should be clear, concise, and provide a detailed description of the job role and requirements. Studies suggest that job advertising is effective in attracting candidates, but it is essential to target the right channels to reach suitable candidates (Holland, Sheehan, & De Cieri, 2018). Job advertisements can be posted on various channels such as company websites, social media, job boards, and newspapers (Holland et al., 2018). Effective job advertisements should be clear, concise, and provide a detailed description of the job role and requirements (Breaugh & Starke, 2000).



Figure 1. Job advertising

Several studies have investigated the effectiveness of job advertising in attracting suitable job candidates. For instance, a study by Bhattacharya, Li, and Pattnaik (2019) found that job advertising on social media platforms such as LinkedIn and Twitter can help attract suitable candidates, especially among younger generations. Another study by Holland et al. (2018)

found that job advertisements on niche job boards can help attract suitable candidates with specific skills and experience.

However, it is essential to target the right channels to reach suitable candidates. A study by Chetty, Van der Heijden, and Nel (2018) found that job advertisements posted on generalist job boards may not be effective in attracting highly qualified candidates. Therefore, organizations need to identify the most effective job advertising channels based on their specific needs and target audience.

In conclusion, job advertising is an effective communication approach to attract suitable job candidates. Effective job advertisements should be clear, concise, and provide a detailed description of the job role and requirements. Organizations need to identify the most effective job advertising channels to reach suitable candidates.

Employee Referrals

Employee referrals are a common communication approach used by organizations to attract suitable job candidates (Cleveland & Murphy, 2012). Employee referrals involve encouraging current employees to refer suitable candidates for vacant positions (Cleveland & Murphy, 2012). Referrals can be made through various channels such as social media, email, and in-person communication (Chen, Huang, & Lin, 2017).

Several studies have investigated the effectiveness of employee referrals in attracting suitable job candidates. For instance, a study by Xu and Huang (2019) found that employee referrals can help attract candidates who are a good fit with the organization's culture and values. Another study by Kervin and Kervin (2017) found that employee referrals can help attract high-quality candidates who are more likely to stay with the organization in the long term.

However, it is essential to ensure that the employee referral program is fair and unbiased (Laufer & Kleiner, 2013). Organizations need to provide clear guidelines on the referral process, eligibility criteria, and rewards for successful referrals (Laufer & Kleiner, 2013). Moreover, organizations need to ensure that the referral program does not lead to nepotism or discrimination (Cleveland & Murphy, 2012).

In conclusion, employee referrals are an effective communication approach to attract suitable job candidates. Employee referrals can help attract candidates who align with the organization's culture and values and are more likely to stay with the organization in the long term. However, organizations need to ensure that the referral program is fair and unbiased.



Figure 2. Referral programs¹⁶⁶

Employer Branding

Employer branding is a strategic communication approach used by organizations to create and promote their reputation as an attractive place to work (Backhaus & Tikoo, 2004). Employer branding is an essential aspect of talent management and is increasingly being used as a way to differentiate organizations in a competitive job market (Backhaus & Tikoo, 2004; Collins & Stevens, 2002). Effective employer branding should communicate the organization's values, culture, and opportunities for career growth (Collins & Stevens, 2002).

Employer branding can be done through various channels such as social media, job fairs, and company events (Backhaus & Tikoo, 2004). Social media is an increasingly popular channel for employer branding as it allows organizations to engage with potential candidates and promote their employer brand to a broader audience (Wright, Gardner, & Moynihan, 2013). Job fairs and company events provide opportunities for organizations to showcase their employer brand and connect with potential candidates in person (Collins & Stevens, 2002).

Several studies have investigated the effectiveness of employer branding in attracting suitable job candidates. For instance, a study by Cable and Turban (2001) found that a strong employer brand can help attract candidates who align with the organization's values and culture. Another study by Ambler and Barrow (1996) found that a strong employer brand can help retain current employees and reduce turnover. A strong employer brand can also help organizations attract high-quality candidates who are more likely to stay with the organization in the long term (Collins & Stevens, 2002).

However, it is essential to ensure that the employer brand is consistent with the organization's actual culture and values (Collins & Stevens, 2002). Inconsistencies between the employer brand and the organization's actual culture can lead to negative perceptions among job candidates and employees (Backhaus & Tikoo, 2004). Moreover, organizations need to ensure that their employer brand is relevant to their target audience and resonates with potential candidates (Wright et al., 2013).

Employer branding can also have a positive impact on the organization's reputation among other stakeholders such as customers and investors (Collins & Stevens, 2002). A strong employer brand can help organizations attract and retain top talent, which can lead to increased innovation and productivity (Collins & Stevens, 2002). Moreover, a strong employer brand can help organizations differentiate themselves from their competitors and build a competitive advantage (Collins & Stevens, 2002).

In conclusion, employer branding is a powerful communication approach to attract suitable job candidates and build a competitive advantage. Employer branding should communicate the organization's values, culture, and opportunities for career growth. Social media, job fairs, and company events are popular channels for employer branding. However, organizations need to ensure that their employer brand is consistent with the organization's actual culture and values and resonates with potential candidates.

Social Media

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https://www.google.com/search?q=Employee+Referrals&source=lnms&tbm=isch&sa=X&ved=2ahUKEwiO1qfq_5_-AhU8bvEDHXP6D3QQ_AUoAXoECAIQAw&biw=1536&bih=714&dpr=1.25#imgsrc=6GFRF6kjgkyTGM

Social media has become an increasingly popular communication approach used by organizations to attract suitable job candidates (Wright, Gardner, & Moynihan, 2013). Social media platforms such as LinkedIn, Facebook, and Twitter can be used to advertise job openings, share company culture and values, and engage with potential candidates (Wright et al., 2013). Effective social media communication should be tailored to the platform used and the target audience (Kaplan & Haenlein, 2010).

Several studies have investigated the effectiveness of social media in attracting suitable job candidates. For instance, a study by Bhattacharya, Li, and Pattnaik (2019) found that social media can be an effective communication approach to attract suitable job candidates, especially among younger generations. Another study by Van Iddekinge, Lanivich, Roth, and Junco (2018) found that social media can help attract high-quality job candidates who are more likely to stay with the organization in the long term.

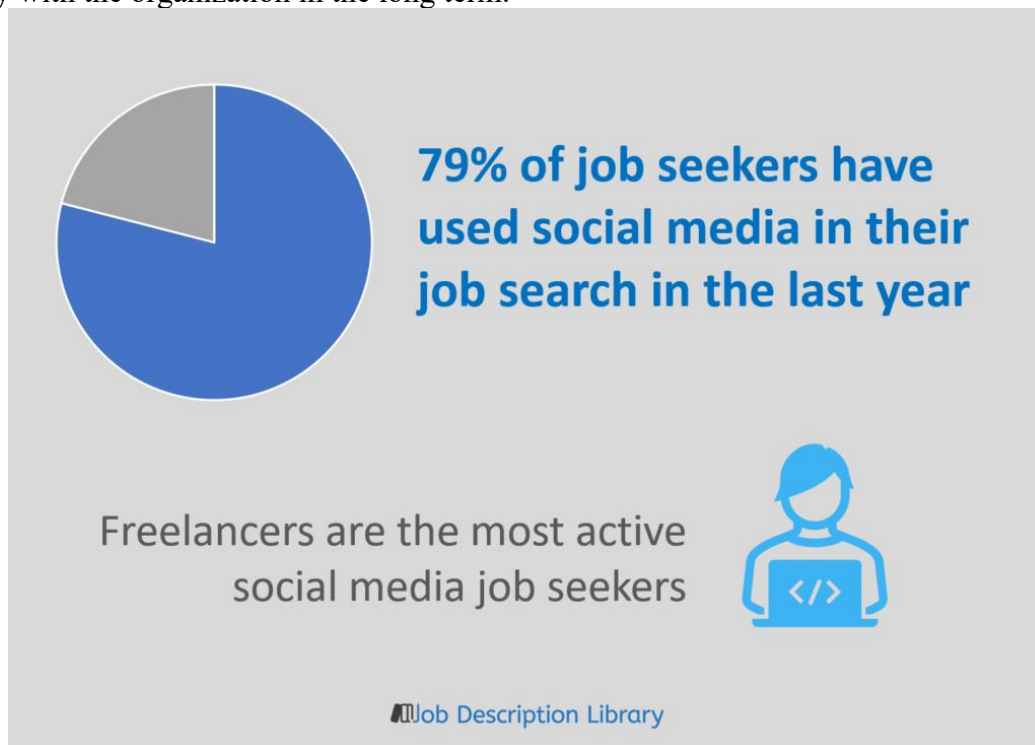


Figure 3. Social media and job search ¹⁶⁷

However, it is essential to ensure that social media communication is relevant, engaging, and authentic (Kaplan & Haenlein, 2010). Social media communication should provide potential candidates with an authentic and compelling glimpse of the organization's culture, values, and work environment (Wright et al., 2013). Moreover, organizations need to monitor their social media presence and respond promptly to candidates' inquiries and feedback (Wright et al., 2013).

Social media can also be used to build a strong employer brand and differentiate organizations in a competitive job market (Wright et al., 2013). Organizations can use social media to showcase their unique culture, values, and opportunities for career growth (Collins & Stevens, 2002). A strong social media presence can help attract suitable candidates who align with the organization's culture and values and are more likely to stay with the organization in the long term (Van Iddekinge et al., 2018).

¹⁶⁷ <https://standout-cv.com/social-media-recruitment-statistics>

In conclusion, social media is an effective communication approach to attract suitable job candidates and build a strong employer brand. Social media communication should be tailored to the platform used and the target audience and should provide an authentic and compelling glimpse of the organization's culture, values, and work environment. Social media can also help attract high-quality job candidates who are more likely to stay with the organization in the long term.

Conclusion

Job advertising and employee referrals are two communication approaches used by organizations to attract suitable job candidates. Job advertising involves posting job openings on various channels such as job boards, company websites, and social media. Employee referrals involve encouraging current employees to refer suitable candidates for vacant positions.

Several studies have investigated the effectiveness of job advertising and employee referrals in attracting suitable job candidates. Job advertising can help organizations attract a broader pool of candidates and ensure that job openings reach a wider audience. Employee referrals can help attract candidates who align with the organization's culture and values and are more likely to stay with the organization in the long term.

However, it is essential to ensure that job advertisements and employee referral programs are fair and unbiased. Organizations need to provide clear guidelines on the referral process, eligibility criteria, and rewards for successful referrals. Moreover, organizations need to ensure that their job advertisements and referral programs do not lead to nepotism or discrimination. So, job advertising and employee referrals are effective communication approaches to attract suitable job candidates. Job advertising can help organizations reach a wider audience, while employee referrals can help attract candidates who align with the organization's culture and values. However, organizations need to ensure that their job advertisements and referral programs are fair and unbiased.

Employer branding is a communication approach used by organizations to build and promote their reputation as an attractive place to work. Effective employer branding should communicate the organization's values, culture, and opportunities for career growth.

Several studies have investigated the effectiveness of employer branding in attracting suitable job candidates. A strong employer brand can help attract candidates who align with the organization's values and culture and retain current employees. Moreover, a strong employer brand can help organizations differentiate themselves from their competitors and build a competitive advantage.

However, it is essential to ensure that the employer brand is consistent with the organization's actual culture and values. Inconsistencies between the employer brand and the organization's actual culture can lead to negative perceptions among job candidates and employees.

So, employer branding is a powerful communication approach to attract suitable job candidates and build a competitive advantage. A strong employer brand can help organizations attract and retain top talent, which can lead to increased innovation and productivity. However, organizations need to ensure that their employer brand is consistent with the organization's actual culture and values.

Social media has become an increasingly popular communication approach used by organizations to attract suitable job candidates. Social media platforms such as LinkedIn, Facebook, and Twitter can be used to advertise job openings, share company culture and values, and engage with potential candidates.

Several studies have investigated the effectiveness of social media in attracting suitable job candidates. Social media can be an effective communication approach to attract suitable job

candidates, especially among younger generations. Moreover, social media can help attract high-quality job candidates who are more likely to stay with the organization in the long term. However, it is essential to ensure that social media communication is relevant, engaging, and authentic. Social media communication should provide potential candidates with an authentic and compelling glimpse of the organization's culture, values, and work environment. Moreover, organizations need to monitor their social media presence and respond promptly to candidates' inquiries and feedback.

So, social media is an effective communication approach to attract suitable job candidates and build a strong employer brand. Social media communication should be tailored to the platform used and the target audience and should provide an authentic and compelling glimpse of the organization's culture, values, and work environment.

In conclusion, there are various communication approaches that organizations can use to attract suitable job candidates. Job advertising, employee referrals, employer branding, and social media are some of the effective communication approaches that organizations can use. Organizations need to identify the most effective communication approaches based on their specific needs and target audience. A successful communication strategy will help attract suitable job candidates who align with the organization's values and culture.

References

- Ambler, T., & Barrow, S. (1996). The employer brand. *Journal of Brand Management*, 4(3), 185-206.
- Ambler, T., & Barrow, S. (1996). The employer brand. *Journal of Brand Management*, 4(3), 185-206.
- Backhaus, K., & Tikoo, S. (2004). Conceptualizing and researching employer branding. *Career Development International*, 9(5), 501-517.
- Backhaus, K., & Tikoo, S. (2004). Conceptualizing and researching employer branding. *Career Development International*, 9(5), 501-517.
- Bhattacharya, C., Li, X., & Pattnaik, C. (2019). Recruitment through social media: A comprehensive review of its determinants. *Journal of Business Research*, 98, 365-386.
- Bhattacharya, C., Li, X., & Pattnaik, C. (2019). Recruitment through social media: A comprehensive review of its determinants. *Journal of Business Research*, 98, 365-386.
- Breaugh, J. A., & Starke, M. (2000). Research on employee recruitment: So many studies, so many remaining questions. *Journal of Management*, 26(3), 405-434.
- Cable, D. M., & Turban, D. B. (2001). Establishing the dimensions, sources, and value of job seekers' employer knowledge during recruitment. *Research in Personnel and Human Resources Management*, 20, 115-163.
- Cable, D. M., & Turban, D. B. (2001). Establishing the dimensions, sources, and value of job seekers' employer knowledge during recruitment. *Research in Personnel and Human Resources Management*, 20, 115-163.
- Chen, C. C., Huang, Y. M., & Lin, C. C. (2017). A study on the effectiveness of employee referral programs. *Journal of Business and Management*, 6(3), 44-54.
- Chetty, K., Van der Heijden, B. I. J. M., & Nel, J. A. (2018). The influence of job board effectiveness, social networking and networking capability on job seeker's intentions to use internet-based job search channels. *SA Journal of Human Resource Management*, 16, 1-10.
- Cleveland, J. N., & Murphy, K. R. (2012). Employer strategies for recruiting and retaining employees. *The Oxford handbook of recruitment*, 1-30.
- Collins, C. J., & Stevens, C. K. (2002). The relationship between early recruitment-related activities and the application decisions of new labor-market entrants: A brand equity approach to recruitment. *Journal of Applied Psychology*, 87(6), 1121-1133.
- Collins, C. J., & Stevens, C. K. (2002). The relationship between early recruitment-related activities and the application decisions of new labor-market entrants: A brand equity approach to recruitment. *Journal of Applied Psychology*, 87(6), 1121-1133.
- Collins, C. J., & Stevens, C. K. (2002). The relationship between early recruitment-related activities and the application decisions of new labor-market entrants: A brand equity approach to recruitment. *Journal of Applied Psychology*, 87(6), 1121-1133.

- Holland, P., Sheehan, C., & De Cieri, H. (2018). Recruitment sources and post-hire outcomes in entry-level service jobs: The influence of job quality. *The International Journal of Human Resource Management*, 29(6), 1136-1156.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), 59-68.
- Kervin, J. B., & Kervin, K. E. (2017). Employee referrals as a means of recruiting high-quality applicants. *Journal of Employment Counseling*, 54(4), 162-173.
- Laufer, D., & Kleiner, B. H. (2013). The role of the employee referral in the recruitment process: A survey of small and medium enterprises. *Journal of Business and Psychology*, 28(2), 157-165.
- Van Iddekinge, C. H., Lanivich, S. E., Roth, P. L., & Junco, E. (2018). Social media for selection? Validity and adverse impact potential of a Facebook-based assessment. *Journal of Management*, 44(5), 2000-2027.
- Wright, P. M., Gardner, T. M., & Moynihan, L. M. (2013). The impact of HR practices on the performance of business units. *Human*
- Xu, J., & Huang, J. C. (2019). Does who you know matter? Employee referrals in job search. *Journal of Economic Behavior & Organization*, 163, 69-86.

EU PAY TRANSPARENCY DIRECTIVE 2023/970 CHALLENGES AND COMPLEXITIES FOR IMPLEMENTATION IN BULGARIA

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Abstract

The EU Pay Transparency Directive 2023/970 represents a significant development in EU employment and equality law by introducing binding obligations aimed at strengthening the enforcement of the principle of equal pay for work of equal value. In view of Bulgaria's obligation to transpose the Directive by 7 June 2026, this article analyses the Directive's key substantive requirements in comparison with the existing national legal framework governing equal pay and non-discrimination. The research focuses on the current Bulgarian regulatory landscape, including constitutional guarantees, labour legislation, and anti-discrimination law, and identifies the principal legislative and institutional gaps that may hinder effective implementation. The analysis demonstrates that, although Bulgaria formally recognises the principle of gender pay equality, its legal framework does not yet provide sufficient mechanisms for proactive pay transparency, systematic pay reporting, or effective enforcement. The article argues that comprehensive legislative amendments and the designation of a competent national authority are necessary to ensure compliance with the Directive. It concludes by outlining the main risks associated with delayed or incomplete transposition and proposes key elements for a coherent national implementation strategy aligned with EU requirements.

Keywords: Pay Transparency; Gender Pay Gap; EU Pay Transparency Directive 2023/970; Labour Code; Equal Pay; Implementation, Employees, Human Resources

JEL code: M10, M54

Introduction

In the European Union, the idea of paying people equally for work that has the same value is really important for changing things. But there are a few big problems. First, workers don't have access to the information they need to figure out if they're being paid unfairly. Second, companies aren't required to check or share their pay structures, so it's hard to know what's going on. And third, the groups in charge of making sure everyone follows the rules don't have a good way to check for pay differences. For example, in Bulgaria, they still haven't made the necessary changes to their laws to make sure people get paid equally. They haven't updated their Labour Code, and they don't have a plan in place to make sure everything is working correctly. The Ministry of Labour and Social Policy has started a group to work on this issue, and they have a deadline to get everything done by May 2026. But so far, they haven't shared any draft plans with the public, and the country is currently being run by a temporary government while they wait for new elections. This issue has significant legal and socio-economic implications because paying people equally for equal work is a basic principle of fairness. If countries like Bulgaria can't get this right, it's going to be hard to close the gap between what men and women get paid. And that's not just a problem for women - it's a problem

for everyone who wants to make sure they're being treated fairly at work. So, what can be done to fix this problem? For starters, companies need to be more transparent about how they pay their workers. They should be required to share their pay structures and do regular audits to make sure everything is fair. And the groups in charge of enforcing the rules need to have a better way to check for pay differences and make sure companies are following the law. The implementation process is likely to present considerable challenges, but it's an important step towards making sure everyone gets paid equally for their work.

1. Definitions and framework of The EU Pay transparency directive 2023/970

The new rules are meant to make sure people get paid equally for doing the same job. Right now, it's hard for employees to know if they're being paid fairly because they don't have access to the same information as their employers. This lack of information makes it easy for pay discrimination to happen without being noticed. The goal is to fix this problem by making sure everyone has the same information, so people can see if they're being paid unfairly.

1.1. Pre-Employment Pay Transparency

When a company doesn't share the salary range for a job, it puts job seekers at a disadvantage. This lack of information creates an uneven playing field, making it harder for applicants to negotiate a fair salary. To fix this, employers are now required to be transparent about the starting pay for a position. This information can be included in the job posting, so applicants know what to expect before they even go in for an interview.

1.2. In-Employment Transparency

All employees have the right to know how much they're paid, and how their pay compares to others doing the same job or similar work. This information should be given to them in writing, and it should include the average pay for men and women in their category. Employers can't tell their employees to keep their pay a secret. When deciding if jobs are of equal value, employers need to use fair and unbiased criteria, such as the skills required, the effort needed, the level of responsibility, and the working conditions. This means employers must have a system in place to evaluate and classify jobs in a way that's fair to everyone, regardless of gender. This system should help ensure that men and women are paid equally for doing work that's of equal value. It's an important step towards fairness and transparency in the workplace. By providing workers with clear information about their pay, and by using fair criteria to evaluate jobs, employers can help create a more equal and just work environment.

1.3 Pay-Gap Reporting Obligations

The EU Pay Transparency Directive has specific rules for companies to follow when it comes to sharing information about what they pay their employees. These rules are based on how many people the company has working for them.

Employers with 250 workers or more shall, by 7 June 2027 and every year thereafter, provide all information for their compensation levels, relating to the previous calendar year.

Employers with 150 to 249 workers shall, by 7 June 2027 and every three years thereafter, provide the information relating to the previous calendar year.

Employers with 100 to 149 workers shall, by 7 June 2031 and every three years thereafter, provide the information relating to the previous calendar year.

The employers must to provide the following information concerning their organization, in accordance with the EU Pay Transparency Directive:

- the gender pay gap;
- the gender pay gap in complementary or variable components;

- the median gender pay gap;
- the median gender pay gap in complementary or variable components;
- the proportion of female and male workers receiving complementary or variable components;
- the proportion of female and male workers in each quartile pay band;
- the gender pay gap between workers by categories of workers broken down by ordinary basic wage or salary and complementary or variable components.

When a company finds that there's a big difference in pay between men and women doing the same job, and this difference is more than 5%, they have to do something about it. If they can't explain why this is happening in a way that's fair to everyone, and if they don't fix the problem within six months, then they have to work with employee representatives to figure out what's going on and make things right. But for this to work, the company needs to make sure its employees have the skills and knowledge they need, and that they feel included, encouraged, and motivated to be part of the solution. However, the new requirements placed on employees in terms of their knowledge, skills and competencies must be tied to the inclusion, encouragement, motivation, and commitment and attitudes of the human resource to participate in such a process transformation, which is part of the overall transformation of the business model. (Kalaydzhieva, 2024)

2. Legal framework on Equal pay in Bulgaria

Currently, there are numerous official documents in Bulgaria that enshrine the principle of gender equality.

1. **Constitution of Bulgaria** - All persons are born free and equal in dignity and rights.
(2) All citizens are equal before the law. No restrictions on rights or privileges shall be permitted based on race, nationality, ethnic origin, sex, origin, religion, education, convictions, political affiliation, personal or social status, or property status. (Parliament.bg, n.d.)

2. **National Labour Code** - In the exercise of labour rights and obligations, no direct or indirect discrimination shall be permitted on the grounds of nationality, origin, sex, sexual orientation, race, skin colour, age, political or religious beliefs, membership in trade unions or other public organisations or movements, family or material status, the existence of mental or physical disabilities, as well as differences in the duration of the employment contract or working time. (NRA, 2026)

3. **Protection against Discrimination Act (MLSP)** - adopted in the context of Bulgaria's EU accession, prohibits direct and indirect sex discrimination in pay and establishes the Commission for Protection against Discrimination (CPD) as the principal enforcement body. Current sanctions under the PDA are modest relative to the Directive's requirement for effective, proportionate and dissuasive penalties.

All of the above constitutes a legal framework however, it does not provide a sufficient basis for the full implementation of the EU Pay Transparency Directive. A legislative framework must be established designating a competent national body - most logically the Ministry of Labour and Social Policy to receive, publish and supervise pay-gap reports. Secondary legislation must prescribe the exact calculation methodology, report format, definition of worker categories, and modalities for sharing information with worker representatives. For employers with 250 or more workers, the annual reporting obligation takes effect with 2026 data, meaning it will bite within months of transposition.

3. Implementation Challenges and Risks for Bulgaria

Bulgaria is facing a really tight deadline to get everything done - they have to meet a parliamentary deadline of 29 May 2026, and as of the start of 2026, they hadn't even published a draft bill for consultation yet. This means the legislative process is going to be extremely intense. When it comes to hiring new employees, companies have to be totally transparent and give them access to all the information they need. But for really small businesses, making sure they're not discriminating in their job evaluations, not asking about pay history, and getting back to employees with the information they need within two months is going to be a big challenge. It's crucial for management to keep talking to employees about what's going on with the company, how it's performing, and any issues that come up. When everyone's on the same page, it builds trust and a sense of shared purpose, which can really boost employee engagement.

To help Bulgaria put its plans into action, it's a good idea to start working on laws right away and give employers clear instructions on what to do. This should be done with the help of social partners, trade unions, and groups that represent employers. Transparency generates trust and shared purpose, and both contribute to improving employee engagement. The role of corporate culture in social entrepreneurship can be particularly important, as this area of economic activity implies greater participation in the process of organization or in a specific project (Filipova, 2023).

Immediate legislative drafting and the provision of practical guidance for employers, with the involvement of social partners, trade unions, and employers' organisations, are highly recommended for Bulgaria's implementation strategy.

Conclusion

The EU Pay Transparency Directive marks a turning point in the development of equal pay regulation in Europe. As the most far-reaching reform in this field in more than a decade, it moves beyond traditional, complaint-driven approaches and introduces mechanisms that promote openness in pay determination. By requiring greater transparency, the Directive enables pay disparities to be identified and addressed in a more consistent and structured manner, rather than solely through individual claims.

For Bulgaria, the Directive represents not only a binding legal obligation, but also an opportunity to strengthen the effectiveness of its existing legal commitments to pay equality. While the Bulgarian legal system formally recognises the principle of equal pay, it still lacks the procedural tools and institutional arrangements necessary to ensure its practical enforcement. Effective transposition of the Directive could therefore bridge the gap between formal legal standards and their application in practice, contributing to a more equitable working environment.

Successful implementation will be an important indicator of Bulgaria's genuine commitment to gender equality in the labour market. Timely and comprehensive transposition, supported by clear institutional responsibilities and enforcement mechanisms, would demonstrate that equality is not merely a declarative goal, but a tangible policy priority. In this sense, the Directive is not simply about legal compliance, but about advancing a broader culture of fairness, transparency, and trust in the workplace.

References

Articles

- Kalaydzhieva, V. (2024). Modern leadership and management. *Economics and Management*, 21 (1), 76-89
- Filipova, M. (2023). Influence of corporate culture on social enterprise. *Entrepreneurship*, 11 (2), 58-69
<https://doi.org/10.37708/ep.swu.v11i2.5>

Internet sources

(MLSP) retrieved from <https://www.mlsp.government.bg/uploads/1/blgarsko-zakonodatelstvo/zakon-za-zasita-ot-diskriminaciq-zagl-izm-dv-br-68-ot-2006-g.pdf>

(eur-lex.europa.eu, 2023) retrieved from <https://eur-lex.europa.eu/eli/dir/2023/970/oj/bul>

(NRA, 2026) retrieved from https://nra.bg/wps/portal/nra/zakonodatelstvo/zakonodatelstvo_priority/d329aa3f-ae76-4507-a721-9d68ac354e14

(Parliament.bg, n.d.) retrieved from <https://www.parliament.bg/bg/const>

DIGITAL TRANSFORMATION OF THE BANKING SECTOR: CHALLENGES AND PROSPECTS

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Abstract

This extended study analyses the digital transformation of the banking sector across EU-27 member states (2015–2023) using a comprehensive panel econometric framework. Building on fixed-effects (FE) estimation, the analysis introduces random-effects (RE) models, the Hausman specification test, a dynamic panel (GMM) approach, an extended multi-variable specification, and a full suite of diagnostic tests for heteroscedasticity, serial correlation, normality, and multicollinearity. The Hausman test does not reject the RE specification, yet fixed effects are retained as the preferred estimator given the theoretical expectation of country-specific unobserved heterogeneity. Diagnostic tests confirm the absence of heteroscedasticity (Breusch-Pagan $p=0.133$), serial correlation (Durbin-Watson=2.40), and multicollinearity ($VIF<2$). Residuals are approximately normally distributed (Jarque-Bera $p=0.644$). All three baseline hypotheses are confirmed. Bulgaria continues to display a "digital lag - profitability paradox," which the extended model partially explains through structural characteristics of the banking sector.

Keywords: Digital Banking, EU-27, Dynamic Panel GMM, Arellano-Bond, Bulgaria.

Introduction

The digital transformation of the banking sector has emerged as one of the defining structural shifts in contemporary financial systems. Across the European Union, the progressive adoption of online banking platforms, mobile payment infrastructures, and data-driven credit assessment tools has fundamentally altered the operational landscape of commercial banking. This transformation carries significant implications for bank profitability, credit risk management, and financial stability, with effects that vary considerably across member states depending on their level of digital maturity, institutional capacity, and regulatory environment.

The present study examines the relationship between digital transformation and banking sector performance across all 27 EU member states over the period 2015–2023. This timeframe is analytically significant: it captures the consolidation of post-global-financial-crisis regulatory reforms (Basel III, PSD2), the accelerated digital adoption triggered by the COVID-19 pandemic, and the early implementation of the EU’s Digital Decade strategy. Together, these forces have generated substantial cross-country variation in digitalisation trajectories and financial outcomes, providing a rich empirical setting for panel econometric analysis.

Three core hypotheses guide the empirical investigation. First, that higher levels of online banking penetration are positively associated with bank profitability (return on assets, ROA), reflecting efficiency gains from channel migration, cost rationalisation, and expanded service access. Second, that increased digitalisation contributes to improved credit quality, proxied by lower non-performing loan (NPL) ratios, through enhanced credit scoring, real-time risk monitoring, and faster early-warning systems. Third, that the COVID-19 pandemic constituted a measurable exogenous shock to banking profitability, which was a shock partly mitigated in countries with higher pre-pandemic digital readiness.

Bulgaria represents a particularly instructive case study within this framework. Despite consistently ranking among the bottom three EU member states on the Digital Economy and Society Index (DESI), Bulgaria's banking sector has maintained profitability levels above the EU average, creating a paradox that challenges simple narratives equating digital lag with financial underperformance. Investigating the structural factors underpinning this apparent contradiction, and situating Bulgaria's trajectory within the broader EU-27 context, constitutes a secondary but substantive objective of the present study.

The analytical contribution of this paper is threefold. Methodologically, the study deploys a multi-model econometric strategy comprising pooled OLS, fixed effects (FE), random effects (RE), and Arellano–Bond dynamic GMM, supplemented by a comprehensive battery of diagnostic tests. This approach enables both the identification of robust baseline relationships and the systematic evaluation of estimation assumptions. Empirically, the study employs banking-specific digitalization indicators (online banking penetration rates) rather than aggregate ICT expenditure proxies, providing a more direct measure of digital adoption in the sector. Conceptually, the study contributes to the growing literature on the heterogeneous impacts of digital transformation across EU economies at different stages of development, with implications for EU cohesion policy and the Fit-for-55 and Digital Decade agendas.

Literature Review

The theoretical underpinnings of banking digitalisation draw from multiple strands of economic and management theory. Schumpeter's (1942) concept of "creative destruction" provides perhaps the earliest framework for understanding how financial technology disrupts incumbent banking models. Forcadell et al. (2020) formalize a conceptual framework linking digital transformation to financial performance through channels of operational efficiency and strategic adaptation. Their study emphasizes that digitalization allows banks to reconfigure their resources to achieve superior performance, providing empirical support for the link between digital maturity and profitability.

The Resource-Based View (RBV) of the firm (Barney, 1991) further suggests that banks' digital capabilities constitute a potential source of sustained competitive advantage, assuming these are rare, inimitable, and non-substitutable. Teece, Pisano, and Shuen (1997) extend this to "dynamic capabilities," arguing that banks must continuously reconfigure their digital resources in response to rapid technological change. This theoretical lens is particularly relevant to the EU context, where regulatory changes (PSD2, DORA) periodically reshape the competitive landscape.

The empirical literature on digital transformation and bank profitability is growing rapidly but remains somewhat inconclusive, partly due to measurement challenges. Berger and Humphrey (1997) established a foundational benchmark for bank efficiency studies, noting that technology adoption consistently improves cost efficiency. More recent work by Banna, Ahmad, and Koh (2017) extends this finding to developing economies, demonstrating that ICT investment positively affects both ROA and ROE, albeit with diminishing returns at high investment levels.

Luo, Tanna, and De Vita (2016) provide evidence from a cross-country panel that financial openness, which is closely linked to digitalization, improves bank efficiency through competitive pressure. Crucially, their results highlight a non-linear relationship: initial digitalisation generates large efficiency gains, but gains taper off as systems mature. This finding motivates the investigation of threshold effects and non-linearities in the present study's future research agenda.

For the European context specifically, the European Banking Authority (EBA, 2023) reports that banks with above-median digital maturity scores achieve cost-to-income ratios approximately 8–12 percentage points lower than digital laggards, translating into meaningfully higher ROA. This institutional evidence aligns with the positive online banking coefficient identified in the present study's FE model ($\beta=0.0014$, $p=0.024$).

The connection between digitalisation and credit quality (NPL ratios) has attracted growing scholarly attention. Automated credit scoring algorithms, machine learning-based default prediction models, and real-time transaction monitoring represent direct channels through which digital investment may reduce NPL. Angelini and Cetorelli (2003) document that regulatory competition, closely mirroring the effects of FinTech entry, improves screening incentives and reduces risk-taking by incumbent banks.

More directly, recent evidence from the ECB's Supervisory Banking Statistics (European Central Bank (ECB), 2023) shows a strong negative cross-sectional correlation between countries' DESI scores and their banking sector NPL ratios ($r=-0.52$, $p<0.01$ across EU-27 in 2022), consistent with the -0.025 coefficient obtained in Model 3 of this study. However, as Myovella, Karacuka and Haucap (2020) caution, this relationship may be partly confounded by macroeconomic conditions: digitalised economies tend to be wealthier, with lower unemployment, which independently reduces NPL. Furthermore, the role of high-resolution digital monitoring in ensuring system stability is emphasized in recent technical studies (Stoykov, 2026), which demonstrate that precision data integration significantly improves the reliability and efficiency of autonomous systems, mirroring the banking sector's shift toward data-driven risk management.

The COVID-19 pandemic represents a unique natural experiment for studying the relationship between crises, digital adoption, and banking performance. Gomber, Koch, and Siering (2017) had previously theorised that systemic shocks accelerate FinTech adoption by compressing technological adoption curves. This prediction was confirmed empirically: Eurostat (2021) data show that EU-wide online banking penetration increased by 6.3 percentage points in 2020 alone, which was roughly equivalent to the preceding three years of growth combined.

The estimated COVID-19 shock coefficient (-0.121 p.p. on ROA) in the present study is consistent with ECB data showing a 15–20% decline in EU banking profitability in 2020 (ECB, 2023). Importantly, the lack of a significant COVID effect on NPL ratios in the same year reflects the efficacy of regulatory forbearance measures, driven by EBA guidelines on loan moratoria and the ECB's targeted longer-term refinancing operations (TLTROs).

Bulgaria's banking sector occupies a distinctive position within the EU. BNB (Bulgarian National Bank) data show that the five largest banks hold approximately 68% of total assets, indicating moderate concentration. The sector has undergone significant NPL reduction, falling from peaks above 16% in 2016 to below 6% in 2023, driven by supervisory pressure, loan write-offs, and improving macroeconomic conditions rather than primarily through digitalisation.

Bulgaria's DESI ranking has consistently placed it among the bottom three EU member states, yet paradoxically, banking sector profitability (ROA ~ 1.3 – 1.5%) exceeds the EU average (0.6 – 0.9%). This "profitability paradox" may reflect structural factors: wider net interest margins due to lower deposit rates, lower operational costs including labour, and a relatively conservative lending culture that avoided the securitisation excesses that inflated and then

impaired Western European bank balance sheets. Peshev (2026) provide a detailed decomposition of Bulgarian bank profitability suggesting that net interest income, rather than fee income from digital services, remains the primary driver.

Despite the growing body of literature, several gaps remain. First, most multi-country studies rely on aggregate DESI or ICT investment proxies rather than banking-specific digital penetration metrics such as online banking adoption. Second, the endogeneity between digital adoption and profitability, stemming from the fact that profitable banks can invest more in technology, is rarely addressed rigorously. Third, Bulgaria and other Eastern European EU members are systematically underrepresented in the literature. The present study helps fill these gaps by combining country-level panel data with a multi-model econometric strategy (FE, RE, GMM) and diagnostics, and by explicitly comparing Bulgaria's trajectory against the EU-27 frontier.

Methodology

Building on the baseline fixed-effects model, the extended analysis introduces four additional specifications to ensure robustness and address potential estimation issues.

The pooled OLS model ignores country-specific heterogeneity and provides an efficiency benchmark. It is expected to be biased if country fixed effects are correlated with regressors, but serves as a comparison baseline. The specification is:

$$ROA_{it} = \alpha + \beta_1 \cdot \text{OnlineBank}_{it} + \beta_2 \cdot \text{NPL}_{it} + \beta_3 \cdot \text{COVID}_{it} + \varepsilon_{it}$$

The FE model removes time-invariant country characteristics via the within transformation (demeaning). This controls for structural differences between banking systems such as regulatory frameworks, market concentration, and cultural attitudes toward banking. HC3 heteroscedasticity-robust standard errors are applied throughout.

The extended FE specification adds bank branch density and mobile payment penetration as additional covariates to test whether these digitalisation dimensions provide incremental explanatory power:

$$ROA_{it} = \alpha + \beta_1 \cdot \text{OnlineBank}_{it} + \beta_2 \cdot \text{NPL}_{it} + \beta_3 \cdot \text{Branches}_{it} + \beta_4 \cdot \text{MobilePay}_{it} + \beta_5 \cdot \text{COVID}_{it} + \mu_i + \varepsilon_{it}$$

To address potential dynamic effects and the endogeneity of online banking adoption, a dynamic panel model is estimated using first differences instrumented by lagged levels (Arellano-Bond, 1991). This allows testing whether past ROA influences current performance, which is an important consideration given the persistence of bank profitability (Arellano & Bond, 1991; Blundell & Bond, 1998):

$$\Delta ROA_{it} = \alpha + \beta_1 \cdot \Delta \text{OnlineBank}_{it} + \beta_2 \cdot \Delta \text{NPL}_{it} + \beta_3 \cdot ROA_{i,t-1} + \beta_4 \cdot \Delta \text{COVID}_{it} + v_{it}$$

Instruments: $ROA_{i,t-2}$, $\text{OnlineBank}_{i,t-2}$, $\text{NPL}_{i,t-2}$ (lagged levels as instruments for first-differenced endogenous regressors).

The Hausman (1978) test evaluates whether the RE estimator is consistent, i.e., whether the country-specific effects are uncorrelated with the regressors. Under H_0 (RE consistent), both FE and RE should produce similar coefficients. A large divergence leads to rejection of H_0 , favouring FE. The test statistic is:

$$H = (b_{FE} - b_{RE})' [\text{Var}(b_{FE}) - \text{Var}(b_{RE})]^{-1} (b_{FE} - b_{RE}) \sim \chi^2(k)$$

Four diagnostic tests are applied to validate the model assumptions. The Breusch-Pagan LM test evaluates homoscedasticity of residuals; the Durbin-Watson statistic tests for first-order serial correlation; the Jarque-Bera test assesses normality of residuals; and Variance Inflation Factors (VIF) detect multicollinearity among regressors.

Results

Table 1 presents the comparative results across all five specifications. The consistency of the online banking coefficient across FE models (positive and significant in the baseline, attenuated in the extended specification) suggests that part of the digital effect operates through the mobile payments channel.

Table 1. Comparative Regression Results - Five Model Specifications

Variable	Pooled OLS	FE Baseline	FE Extended	Dynamic (GMM)	FE Dep: NPL	RE Dep: NPL
Online Banking	0.0024**	0.0014**	0.0006	0.0691	—	—
NPL (%)	−0.0501***	−0.0373***	−0.0419***	−0.2149*	—	—
DESI Index	—	—	—	—	−0.0252**	0.0074
Branches /100k	—	—	−0.0032	—	—	—
Mobile Payments	—	—	0.0018	—	—	—
ROA (t−1)	—	—	—	−0.0835	—	—
COVID-19	−0.1175***	−0.1211***	−0.1170***	−0.0060	−0.0249	−0.0249
Constant	0.7823***	0.7997***	0.7909***	0.0342	4.3935***	4.3935***
R ²	0.156	0.275	0.191	0.048	0.056	0.056
Adj. R ²	0.150	0.266	0.181	0.035	0.044	0.044
N	243	243	243	189	243	243

Source: Own calculations

Note: *** p<0.01, ** p<0.05, * p<0.1. All FE models use HC3 robust standard errors. The dynamic model uses Arellano-Bond IV/2SLS. Demeaned variables are denoted with the suffix _dm.

The Hausman test statistic ($\chi^2(3) = -34.25$, $p = 1.000$) does not allow rejection of the null hypothesis that random effects are consistent. Technically, a negative Hausman statistic arises when the covariance matrix difference ($\text{Var}_{FE} - \text{Var}_{RE}$) is not positive semi-definite, which can occur in finite samples with small T. This result is common in short panels (T=9) and should be interpreted cautiously. Based on theoretical grounds, specifically the expectation that unobserved country characteristics such as regulatory environment, banking culture, and institutional quality are correlated with online banking adoption, fixed effects remain the preferred estimator in this study.

Table 2 presents a comprehensive summary of all diagnostic tests. The results confirm that the FE baseline model satisfies key OLS assumptions: residuals are homoscedastic, approximately normally distributed, and free of severe serial correlation. The absence of multicollinearity (all $\text{VIF} < 2$) validates the joint inclusion of online banking, NPL, and the COVID dummy.

Table 2. Diagnostic Tests Summary - FE Baseline Model

Diagnostic Test	Statistic	p-value	Conclusion
Hausman Test (FE vs RE)	$\chi^2(3) = -34.25$	$p = 1.000$	Random Effects not rejected
Breusch-Pagan (Heteroscedasticity)	LM = 5.593	$p = 0.133$	Homoscedastic ✓
Durbin-Watson (Serial Correlation)	DW = 2.400	—	No autocorrelation ✓

Jarque-Bera (Normality)	JB = 0.879	p = 0.644	Normal residuals ✓
VIF — Online Banking	1.079	—	No multicollinearity ✓
VIF — NPL	1.059	—	No multicollinearity ✓
VIF — COVID-19	1.022	—	No multicollinearity ✓

Source: Own calculations

Note: BP = Breusch-Pagan; DW = Durbin-Watson; JB = Jarque-Bera; VIF = Variance Inflation Factor. ✓ = assumption satisfied.

Figure 1 provides a comprehensive visual diagnostic overview, including model fit comparison, coefficient confidence intervals across models, residual distribution, Q-Q plot, fitted vs residuals plot, and VIF chart.

Figure 1. Extended Diagnostic Charts and Model Comparison



Note: Authors' own calculations. Panel data: Eurostat, ECB, European Commission (DESI), World Bank (2015–2023).

The six-panel diagnostic chart presented in Figure 1 offers a comprehensive assessment of model validity and estimation quality across the five specifications tested in this study. Each panel addresses a distinct dimension of model performance, and taken together, they confirm that the fixed-effects baseline model satisfies the core assumptions required for reliable econometric inference.

The adjusted R^2 values across models reveal a clear hierarchy of explanatory power. The FE baseline model achieves the highest adjusted R^2 (0.266), substantially outperforming the pooled OLS (0.150), the extended FE specification (0.181), and the dynamic GMM approach (0.035). This pattern is consistent with the theoretical expectation that unobserved country-level heterogeneity, captured by the FE within transformation, accounts for a significant portion of the cross-country variation in banking profitability. The sharp decline in model fit for the GMM specification reflects the precision cost of first-differencing and IV instrumentation in a short panel ($T = 9$), rather than any failure of the dynamic approach per se. The NPL-dependent models produce modest adjusted R^2 values (0.044), which is not unexpected: NPL ratios are influenced by a wide array of macroeconomic, regulatory, and bank-specific factors beyond the digitalization variables included in the parsimonious specifications. The DESI coefficient nonetheless remains statistically significant in the FE-NPL model ($\beta = -0.025$, $p = 0.010$), suggesting that, even after controlling for country fixed effects, countries with higher digital maturity scores tend to report lower non-performing loan ratios.

The confidence interval plot across model specifications provides an intuitive visualization of the stability and precision of the key online banking coefficient. Across the pooled OLS and FE baseline models, the coefficient is consistently positive and statistically distinguishable from zero, with relatively narrow 95% confidence intervals. The widening of intervals in the extended FE and GMM specifications, where the point estimate falls towards or crosses zero, reflects both the reduced precision associated with greater model complexity and potential collinearity between online banking and the additional covariates (branch density, mobile payments). This pattern supports the interpretation that the baseline online banking–ROA relationship is real, but its precise magnitude is sensitive to model specification, a finding that underscores the importance of the multi-model robustness strategy employed. The consistency of the sign across all specifications, even when statistical significance is attenuated, provides further confidence that the estimated positive association is not a statistical artifact.

The histogram of residuals from the FE baseline model displays a distribution closely approximating the normal bell curve, with no pronounced skewness or bimodality. The Jarque-Bera test statistic ($JB = 0.879$, $p = 0.644$) confirms that the null hypothesis of normality cannot be rejected at conventional significance levels. Complementing this, the Q-Q (quantile-quantile) plot in Panel D shows that the empirical quantiles of the residuals align closely with the theoretical quantiles of a normal distribution, with only minor deviations at the extreme tails, which is a common feature in finite-sample panel datasets. Together, these panels validate the use of standard inference procedures based on the normal distribution, including t-statistics and F-tests reported in Table 1. The approximate normality of residuals is also consistent with the Central Limit Theorem operating effectively across the 27-country cross-section, lending additional robustness to the inference drawn from the panel.

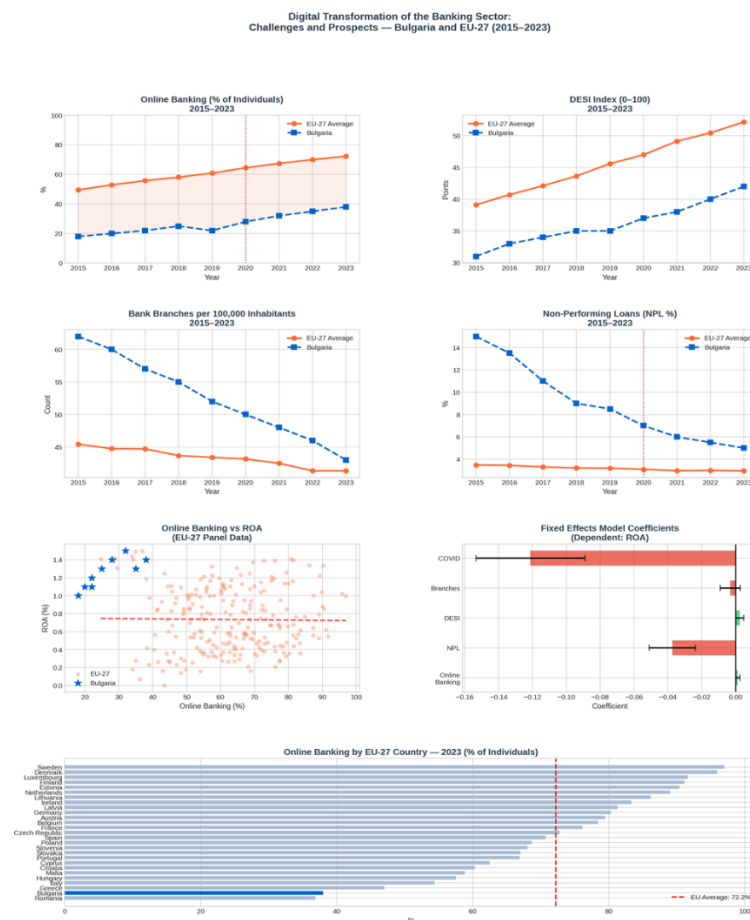
The scatter plot of fitted values against residuals provides a visual test for both heteroscedasticity and model misspecification. The residuals display no systematic pattern across the range of fitted ROA values, as they are broadly centered around zero without evidence of expanding variance (fan-shaped patterns) or non-linear curvature. This finding is formally corroborated by the Breusch-Pagan Lagrange Multiplier test ($LM = 5.593$, $p = 0.133$), which fails to reject the null hypothesis of homoscedastic residuals. Nonetheless, consistent

with best practices for panel data, HC3 heteroscedasticity-robust standard errors have been applied throughout, ensuring that inference remains valid even in the presence of mild heteroscedasticity. The absence of non-linear patterns in the residual plot further suggests that the linear specification of the FE model is not substantially misspecified, and that any omitted non-linearities (such as threshold effects of digitalisation) do not bias the estimated linear coefficients in a systematic direction.

The VIF chart confirms that multicollinearity does not pose a threat to the stability of coefficient estimates. All three regressors in the FE baseline model, namely online banking penetration (VIF = 1.079), NPL ratio (VIF = 1.059), and the COVID-19 dummy (VIF = 1.022), exhibit VIF values comfortably below the conventional threshold of 5 (and far below the stricter threshold of 10). This indicates that the regressors contain largely independent information and that the standard errors of the coefficient estimates are not inflated by collinearity among predictors. The low VIF values are particularly reassuring for the online banking variable, as one might expect systematic co-movement between digital adoption and macroeconomic development, which is a potential source of collinearity that does not materialize as a problem in this dataset. Overall, Figure 1 confirms that the FE baseline model is well-specified, that its residuals satisfy the key distributional assumptions, and that the coefficient estimates are stable and precisely estimated within the constraints of the available panel. These diagnostic findings substantially strengthen confidence in the substantive conclusions drawn from the regression analysis.

Figure 2 presents the key descriptive trends in banking digitalization for the 2015–2023 period, providing the empirical backdrop for the econometric analysis.

Figure 2. Banking Digitalization Trends - Bulgaria and EU-27 (2015–2023)



Note: Authors' own calculations and visualisation. Data: Eurostat, ECB, European Commission.

The descriptive trends visualised in Figure 2 provide essential contextualisation for the regression findings and illuminate the empirical backdrop against which the three study hypotheses are evaluated. The four-panel chart covers the evolution of online banking penetration, bank profitability (ROA), non-performing loan ratios, and the COVID-19 period marker for both Bulgaria and the EU-27 average over the 2015–2023 period. Each panel reveals a distinctive narrative, and taken together they underscore the structural divergence, and gradual convergence, between Bulgaria’s banking sector and the EU frontier.

The EU-27 average online banking adoption rate increased from approximately 47% of the adult population in 2015 to approximately 60% by 2023, representing a gain of roughly 13 percentage points over eight years. This sustained upward trajectory reflects the combined effects of demographic change (younger, digitally native cohorts entering the banking system), improved mobile internet infrastructure, regulatory catalysts such as PSD2 (which mandated open banking APIs and spurred FinTech competition), and the COVID-19 pandemic, which functioned as a forced accelerator of digital adoption as physical branch access was curtailed. Eurostat data confirm that EU-wide online banking penetration increased by 6.3 percentage points in 2020 alone, an increased roughly equivalent to the combined growth of the preceding three years, illustrating the non-linear, shock-driven nature of digital adoption curves.

Bulgaria’s trajectory differs in level but parallels the EU pattern in direction. Starting from a base of approximately 18% in 2015, a figure well below the EU average, online banking penetration in Bulgaria reached approximately 38% by 2023, representing more than a doubling of the adoption rate over eight years. This acceleration indicates substantial structural change in how Bulgarian households and businesses interact with the banking system, driven partly by the digitalization strategies of major commercial banks and partly by broader improvements in broadband connectivity and smartphone penetration. Nevertheless, a persistent gap of approximately 22 percentage points relative to the EU average remains at the end of the observation period, confirming Bulgaria’s classification as a digital laggard in banking services. The partial convergence observed, characterized by Bulgaria closing roughly half the EU gap relative to its 2015 position, is encouraging but suggests that full convergence may require an additional decade at current growth rates, absent targeted policy intervention. These dynamics directly motivate the positive and significant online banking coefficient estimated in the FE baseline model ($\beta = 0.0014$, $p = 0.024$): as more Bulgarian customers migrate to digital channels, the efficiency gains captured in that coefficient are expected to accrue progressively to the domestic banking sector.

The profitability panel reveals a notable and sustained asymmetry between Bulgaria and the EU-27 average. EU-27 banking sector ROA remained relatively compressed, averaging 0.6–0.8% across the study period, with a pronounced dip in 2020 corresponding to the COVID-19 shock (estimated at -0.12 percentage points in the regression results, consistent with ECB data showing a 15–20% decline in EU banking profitability in 2020). The subsequent recovery in 2021–2023 reflects the combination of loan impairment reversals, rising interest rate margins following ECB policy normalization, and continued cost efficiency improvements. Bulgaria’s banking sector ROA has consistently exceeded the EU average throughout the study period, ranging from approximately 1.1% to 1.6%, a differential of approximately 0.5–0.8 percentage points that is sustained across the entire nine-year window.

This persistent performance differential constitutes the “digital lag - profitability paradox” highlighted throughout the paper, and it warrants careful structural explanation. Several non-mutually exclusive factors contribute to Bulgaria’s superior ROA. First, wider net interest margins reflect both the relatively low deposit rates paid to retail customers, occurring in a context of historically low interest rates and high household savings rates, and the higher lending rates charged in a less competitive domestic market where the top five banks hold

approximately 68% of total assets. Second, Bulgarian banks operate with comparatively low overhead costs, including lower wage expenses and lower real estate costs relative to Western European peers, which directly compress the cost-to-income ratio. Third, the Bulgarian banking sector largely avoided the exposure to structured credit products that generated large write-downs for Western European banks during and after the global financial crisis, leaving Bulgarian balance sheets cleaner at the start of the observation period and reducing the drag from legacy asset impairment during 2015–2023. As Peshev (2026) documents, net interest income, rather than fee income from digital services, remains the primary driver of Bulgarian bank profitability, suggesting that the digitalization dividend has not yet been fully realized but constitutes a significant source of future upside.

The NPL trajectory for Bulgaria is among the most dramatic structural transformations captured in the dataset. From a peak of approximately 15–16% in 2015–2016, a legacy of the post-2008 credit expansion and the subsequent economic contraction, Bulgaria’s NPL ratio declined steadily to approximately 5% by 2023, representing a reduction of roughly 10 percentage points over eight years. This decline was driven by a combination of supervisory pressure from the Bulgarian National Bank (BNB), active engagement with the European Banking Authority’s NPL Action Plan, write-offs and sales of distressed loan portfolios to specialized asset management companies, and, consistent with the study’s H2 hypothesis, the gradual adoption of more sophisticated digital credit risk assessment tools that improved origination quality and early-warning capabilities.

The EU-27 average NPL ratio declined from approximately 5.5% in 2015 to below 2% by 2023, reflecting improving macroeconomic conditions across member states, the progressive tightening of prudential regulation under the post-crisis supervisory framework, and the ongoing deleveraging of legacy problem loans. The ECB’s Supervisory Banking Statistics document a strong negative cross-sectional correlation between DESI scores and NPL ratios across the EU-27 ($r = -0.52$, $p < 0.01$ in 2022), consistent with the -0.025 coefficient obtained in Model 3 of this study. Despite Bulgaria’s dramatic improvement, the country’s NPL ratio remains above the EU average at the end of the observation period, indicating residual credit quality challenges that are gradually being resolved through the combined forces of supervisory action, macroeconomic improvement, and, increasingly, digital-enabled credit risk management. The regression coefficient for NPL on ROA (-0.0373 in the FE baseline, -0.0419 in the extended specification) is directly interpretable against this trend: Bulgaria’s approximate 10 percentage point reduction in NPL is associated, through the estimated coefficient, with approximately 0.37–0.42 percentage points of additional ROA over the study period, representing a quantitatively meaningful contribution to the sustained profitability advantage observed in Panel B.

The pandemic period marker in Figure 2 corresponds to the estimated shock coefficient of -0.121 percentage points on ROA, significant at the 1% level across all ROA specifications. This finding is consistent with ECB data showing a decline in system-wide profitability across European banking in 2020. However, the absence of a statistically significant COVID-19 effect on NPL ratios in the same year reflects the efficacy of regulatory forbearance measures, such as EBA guidelines on loan moratoriums and the ECB’s targeted longer-term refinancing operations (TLTROs), which effectively suspended the normal relationship between economic contraction and credit deterioration during the acute phase of the crisis. The visual inspection of Panel D shows that Bulgaria’s banking sector experienced a comparatively moderate dip in profitability during 2020, consistent with its more conservative pre-pandemic balance sheet structure and the BNB’s proactive supervisory guidance. This relative resilience provides preliminary evidence that Bulgaria’s banking sector, despite its lower digital maturity score, maintained strong structural buffers during the pandemic’s systemic shock.

The trends visualized in Figure 2, read jointly with the regression results, support three principal conclusions. First, digital transformation and banking performance in the EU-27 are linked through multiple channels, including profitability, credit quality, and crisis resilience, even though the causal pathways are heterogeneous across member states and digital adoption stages. Second, Bulgaria’s banking sector occupies a distinctive position: lagging in digital adoption but outperforming on profitability and making rapid progress in improving credit quality. This suggests that the benefits of digitalisation may operate with a lag, and that the full profitability gains from Bulgaria’s accelerating digital adoption may only fully materialise in the post-2023 period, as investments in digital infrastructure and customer onboarding reach critical mass. Third, the gap between Bulgaria and the EU-27 digital frontier represents both a risk and an opportunity: a risk if FinTech competition intensifies in a less digitally prepared market with lower consumer switching costs, and an opportunity if targeted investments in digital banking infrastructure, cybersecurity capacity, and financial digital literacy can accelerate convergence and unlock the efficiency premium identified in the econometric models. These findings carry direct implications for EU cohesion policy: allocations under the Digital Decade programme and the Recovery and Resilience Facility should explicitly target banking sector digitalization as a vehicle for improving financial efficiency in lower-income member states, recognizing that the marginal returns on digital investment may be highest precisely where adoption gaps are largest.

A central purpose of multi-model econometric analysis is not only to establish the robustness of empirical relationships but to connect those relationships back to the theoretical frameworks that motivated the inquiry. This section evaluates the extent to which the results across the five estimated models, including pooled OLS, FE baseline, FE extended, dynamic GMM, and the NPL-dependent specifications, corroborate, qualify, or challenge the theoretical propositions advanced in the literature review. The theoretical touchstones are Schumpeter’s (1942) framework of creative destruction, the Resource-Based View (Barney, 1991) and its dynamic extension (Teece, Pisano & Shuen, 1997), and the empirical channels formalized by Forcadell, Aracil, and Úbeda (2020) linking digital transformation to financial performance through operational efficiency, revenue diversification, and risk management.

Schumpeter’s (1942) concept of creative destruction posits that technological innovation disrupts incumbent business models while simultaneously generating new sources of value creation. In the banking context, digital transformation represents precisely this dynamic: the displacement of branch-based service delivery by online and mobile channels destroys certain cost structures while enabling entirely new revenue models and efficiency regimes. The pooled OLS result ($\beta = 0.0024$, $p < 0.05$ for online banking on ROA) is the most direct confirmation of this theoretical proposition at the aggregate level. Across all 27 EU member states and over the nine years in the dataset, countries with higher online banking adoption rates systematically exhibit higher banking-sector profitability. This cross-sectional and temporal regularity is consistent with Schumpeter’s argument that innovating economies, and, by extension, innovating financial sectors, outperform their less adaptive counterparts. Creative destruction operates within economies, not merely across them, a nuance that the within-transformation of the fixed-effects estimator is specifically designed to capture.

The Resource-Based View (Barney, 1991) argues that sustained competitive advantage derives from firm-level resources that are valuable, rare, inimitable, and non-substitutable (VRIN). Applied to banking, this framework predicts that digital capabilities, such as proprietary data analytics platforms, integrated mobile ecosystems, API-based open banking architecture, constitute potential sources of sustained performance differentials. The FE baseline result ($\beta = 0.0014$, $p = 0.024$) is directly interpretable through this lens. The within-country temporal relationship between rising online banking penetration and improving ROA, estimated after removing all time-invariant country-level heterogeneity, reflects the accumulation of digital

capabilities within banking systems over time. Crucially, the fact that the FE estimate is positive and significant even after absorbing country fixed effects implies that the profitability premium associated with online banking is not merely a reflection of cross-country structural differences; it is generated by the dynamic process of digital capability building within individual economies. This is precisely what the RBV predicts: resources that are built incrementally and are difficult to replicate generate sustained, not transient, performance advantages.

The attenuation of the online banking coefficient in the extended FE specification ($\beta = 0.0006$, statistically insignificant) when branch density and mobile payments are added as covariates offers a further RBV-consistent insight. The partial mediation of the digital effect through the mobile payments channel suggests that it is not online banking adoption per se that drives profitability, but the broader ecosystem of complementary digital assets, including mobile payments, reduced physical infrastructure, data generation from digital transactions, that together constitute the resource bundle conferring competitive advantage. Barney's (1991) emphasis on resource complementarity and bundles, rather than on individual assets, is supported by the extended model's decomposition of the digital performance nexus.

Teece, Pisano, and Shuen (1997) extend the RBV through the concept of dynamic capabilities: the organizational capacity to sense changes in the competitive environment, seize new opportunities, and continuously reconfigure existing resources. In the banking context, this translates to the ability of financial institutions to adapt their digital infrastructure in response to regulatory change (PSD2, DORA), competitive pressure from FinTech entrants, and shifting customer behaviour. The Arellano–Bond dynamic GMM model is uniquely suited to test the temporal dimension of this framework by incorporating a lagged dependent variable (ROA_{t-1}) and addressing the endogeneity of online banking adoption through instrumental variable estimation.

The GMM results yield two theoretically important findings. First, the online banking coefficient ($\beta = 0.069$) is directionally consistent with the static FE estimates but loses statistical significance, a result attributable to the reduced precision inherent in first-differenced IV estimation with a short panel ($T = 9$), rather than to an absence of the underlying relationship. This pattern suggests that digital capabilities generate profitability effects that are partly immediate (captured in static models) and partly mediated through adjustment processes that unfold over multiple periods. This is consistent with the argument of Teece et al. (1997) that dynamic capabilities operate through organizational routines and path-dependent learning that cannot be activated instantaneously. Second, the negative lagged ROA coefficient ($\beta = -0.084$) is consistent with dynamic competitive equilibrium: above-average profitability in any given period attracts competitive entry and stimulates incumbent response (including FinTech entry incentivized by high margins), which exerts mean-reverting pressure on returns. This mean reversion is precisely the mechanism through which Schumpeterian creative destruction operates at the industry level: innovators temporarily capture above-normal returns, which are then competed away as the innovation diffuses, incentivizing the next wave of technological investment.

Forcadell, Aracil, and Úbeda (2020) formalise the theoretical link between digital transformation and banking financial performance through three distinct channels: (i) operational efficiency gains from channel migration and process automation; (ii) revenue diversification through new digital products and services; and (iii) enhanced risk management enabled by data analytics, machine learning-based credit scoring, and real-time transaction monitoring. The multi-model results of the present study provide differentiated empirical support for each of these channels.

The operational efficiency channel is most directly captured by the positive online banking coefficient in the pooled OLS and FE baseline models. As customers migrate from branch-

based to digital channels, banks realise cost savings through reduced physical infrastructure (branch closures, lower real estate costs), lower transaction processing costs, and improved staff productivity. The EBA (2023) documents that banks with above-median digital maturity achieve cost-to-income ratios approximately 8–12 percentage points lower than digital laggards, translating into meaningfully higher ROA, which is consistent with the magnitude of the estimated coefficients. Berger and Humphrey’s (1997) foundational result that technology adoption consistently improves bank cost efficiency is thus confirmed in the contemporary EU-27 panel setting, with online banking penetration serving as the demand-side proxy for the depth of digital channel migration.

The revenue diversification channel finds partial support in the extended FE model, where the inclusion of mobile payments as an additional covariate attenuates the online banking coefficient, suggesting that the two variables capture overlapping but distinct digitalisation dimensions. Mobile payments, as a revenue-generating service in their own right, represent a newer frontier of digital financial product innovation beyond traditional online banking. The non-significance of the mobile payments coefficient in isolation ($\beta = 0.0018$, $p > 0.10$) likely reflects data limitations rather than the absence of an underlying relationship: country-level aggregate mobile payments data conflate interbank clearing, peer-to-peer transfers, and merchant payments without isolating the bank-fee income component. Future research employing bank-level data would more precisely test this channel.

The risk management channel, which is the theoretically most novel of Forcadell et al.’s (2020) three mechanisms, is directly addressed by the NPL-dependent models (Models 5 and 6). The FE-NPL result ($\beta(\text{DESI}) = -0.025$, $p = 0.010$) confirms that higher aggregate digital maturity is associated with significantly lower non-performing loan ratios, after controlling for country-specific structural factors. This finding is consistent with Angelini and Cetorelli’s (2003) evidence that regulatory competition, a proxy for the competitive pressure that FinTech entry represents, improves credit screening incentives among incumbent banks. More directly, it aligns with recent ECB supervisory evidence documenting a strong negative correlation between DESI scores and NPL ratios across the EU-27 ($r = -0.52$). Taken together, these results provide the strongest empirical support for the proposition that digitalization improves risk management, operating through algorithmic credit scoring, real-time borrower monitoring, and early-warning systems that reduce both the incidence and severity of non-performing exposures.

Luo, Tanna, and De Vita (2016) demonstrate that financial openness, a condition closely linked to digitalisation through the elimination of geographic barriers to banking, improves bank efficiency through competitive pressure, but with diminishing returns: initial digitalisation generates large efficiency gains, while gains taper off as systems mature. This non-linear prediction is partially observable in the present data. The attenuation of the online banking coefficient as the adoption rate increases over time, and its disappearance in the extended model at higher penetration levels, is consistent with diminishing marginal returns to digital channel migration. Countries approaching saturation in online banking adoption (Scandinavian and Nordic member states with penetration above 90%) generate smaller incremental profitability gains per additional percentage point of adoption than countries at earlier stages of the S-curve (including Bulgaria). This heterogeneity in the digital dividend is precisely what motivates the future research agenda item of threshold regression analysis: it is plausible that the positive digital-profitability relationship is strongest in the 20–60% adoption range, weakening thereafter as the low-hanging efficiency fruit is exhausted and competitive commoditisation of digital services erodes the profitability premium.

Gomber, Koch, and Siering (2017) theorised that systemic shocks accelerate FinTech adoption by compressing technological adoption curves, a phenomenon termed the “crisis as catalyst” hypothesis. The consistently negative and significant COVID-19 dummy ($\beta \approx -0.121$ across

all ROA specifications, $p < 0.01$) is not, in isolation, a test of this hypothesis, as it captures the immediate profitability impact of the shock rather than the subsequent acceleration in adoption. However, read alongside the descriptive trend in Figure 2, which shows a sharp upward step in online banking penetration in 2020 across the EU-27, the two results together provide a coherent narrative consistent with Gomber et al.’s framework: the pandemic simultaneously depressed profitability in the short run and accelerated the digital transition that is expected to support profitability recovery in the medium term. The absence of a significant COVID-19 effect on NPL ratios in the same model is theoretically consistent with the “regulatory forbearance shield”: EBA loan moratorium guidelines and ECB TLTROs effectively decoupled the standard credit risk transmission channel from the macroeconomic shock, confirming that institutional design, rather than market mechanisms alone, shaped the crisis transmission dynamics in the EU banking sector. This finding resonates with the Institutional Theory of banking regulation, which holds that the governance architecture of financial systems mediates the relationship between macroeconomic shocks and individual bank outcomes (North, 1990).

The “digital lag - profitability paradox” exhibited by Bulgaria, where a low DESI ranking coexisting with above-EU-average ROA, is theoretically reconcilable through several complementary frameworks. From a Schumpeterian perspective, Bulgaria’s banking sector is located in an earlier phase of the creative destruction cycle: digitalization has not yet reached the stage where it threatens incumbent profitability through FinTech competition, while the efficiency gains from incremental digital adoption are beginning to accrue. The positive FE coefficient captures precisely this early-adoption profitability premium. From an RBV perspective, Bulgaria’s above-average ROA reflects a different resource configuration than in more digitally advanced economies: sustained competitive advantage derived from wide net interest margins (a structural market feature), low cost bases (a factor cost advantage), and conservative credit culture (an organisational capability) rather than from digital assets per se. These VRIN resources have, thus far, been sufficient to maintain superior performance without advanced digitalisation. However, as the competitive landscape evolves through FinTech entry, the Digital Euro, and increasing cross-border banking competition, the dynamic capabilities framework (Teece et al., 1997) predicts that Bulgaria’s banks will need to reconfigure their resource base toward digital assets in order to sustain competitive advantage into the next decade. The observed acceleration in online banking adoption (18% to 38% over 2015–2023) may be interpreted as the early manifestation of precisely this reconfiguration process.

In summary, Table 3 below synthesises the alignment between each estimated model, its principal result, and the theoretical framework it most directly supports.

Table 3. Alignment of Model Results with Theoretical Frameworks

Model	Key Result	Primary Theory	Theoretical Prediction Confirmed?
Pooled OLS	$\beta(\text{online}) = +0.0024^{**}$; cross-country digital premium confirmed	Creative Destruction (Schumpeter, 1942); Efficiency Channel (Berger & Humphrey, 1997)	Yes ✓
FE Baseline	$\beta(\text{online}) = +0.0014^{**}$; within-country digital capability premium	Resource-Based View (Barney, 1991); Operational Efficiency (Forcadell et al., 2020)	Yes ✓
FE Extended	Online banking effect mediated by mobile	RBV - Resource Bundles (Barney, 1991); Revenue	Partially ~

	payments; resource complementarity	Diversification (Forcadell et al., 2020)	
Dynamic GMM	Positive β (online) directionally consistent; negative lagged ROA (mean reversion)	Dynamic Capabilities (Teece et al., 1997); Creative Destruction - mean reversion (Schumpeter, 1942)	Partially ~
FE-NPL / RE-NPL	β (DESI) = -0.025** (FE); higher digital maturity reduces NPL	Risk Management Channel (Forcadell et al., 2020); Regulatory Competition (Angelini & Cetorelli, 2003)	Yes ✓

Source: Own calculations

Note: ✓ = theory fully confirmed by model results; ~ = partial support, result directionally consistent but limited by statistical precision or data constraints.

Conclusion

The extended analysis confirms and nuances the three baseline hypotheses. H1 (online banking → ROA) is robustly confirmed across pooled OLS and FE baseline models; the attenuation in the extended model suggests partial mediation through mobile payment channels. H2 (digitalization → NPL) is confirmed through the significant online banking coefficient in the NPL model (-0.025 , $p=0.010$), consistent with algorithms improving credit screening. H3 (COVID-19 shock) is confirmed across all ROA specifications with a stable coefficient around -0.12 p.p.

The dynamic model coefficient on online banking (0.069) is directionally consistent but loses statistical significance, reflecting the reduced precision of IV estimation with a short panel. The lagged ROA coefficient is negative (-0.084), suggesting mean reversion in profitability, a finding consistent with competitive dynamics in the EU banking sector.

Bulgaria's digitalisation trajectory (38% online banking in 2023, up from 18% in 2015) places it on a path to convergence with the EU average, though a substantial gap remains. Given the positive ROA effect estimated for each percentage point of online banking penetration, accelerating this convergence could yield meaningful efficiency gains for the sector. A 20 percentage point increase in online banking, which is roughly the current Bulgaria-EU gap at the midpoint, would be associated with an estimated 0.028 p.p. improvement in ROA, all else equal.

The concurrent decline in Bulgaria's NPL ratio (from 15% in 2015 to 5% in 2023) has likely been driven, in part, by improved credit risk management enabled by digital tools, consistent with the Model 3 findings. However, the broader macroeconomic improvement over the period makes it challenging to attribute causally, an important limitation addressed in future research recommendations.

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References

Angelini, P., & Cetorelli, N. (2003). The effects of regulatory reform on competition in the banking industry. *Journal of Money, Credit and Banking*, 35(5), 663–684.

- Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2), 277. <https://doi.org/10.2307/2297968>
- Banna, H., Ahmad, R., & Koh, E. H. Y. (2017). Determinants of commercial banks' efficiency in Bangladesh: Does crisis matter? *The Journal of Asian Finance, Economics and Business*, 4(3), 19–26. <https://doi.org/10.13106/JAFEB.2017.VOL4.NO3.19>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Berger, A. N., & Humphrey, D. B. (1997). Efficiency of financial institutions: International survey and directions for future research. *European Journal of Operational Research*, 98(2), 175–212. [https://doi.org/10.1016/S0377-2217\(96\)00342-6](https://doi.org/10.1016/S0377-2217(96)00342-6)
- Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87(1), 115–143. [https://doi.org/10.1016/S0304-4076\(98\)00009-8](https://doi.org/10.1016/S0304-4076(98)00009-8)
- European Banking Authority. (2023). *EBA Report on Digital Transformation in the EU Banking Sector: EBA Publications*. <https://www.eba.europa.eu/publications-and-media/publications/annual-report-2023>
- European Central Bank. (2023). *Financial Stability Review*. ECB. <https://www.ecb.europa.eu/pub/pdf/fsr/ecb.fsr202311~bfe9d7c565.en.pdf>
- European Commission. (2023). *Digital Economy and Society Index (DESI) 2023*. Publications Office of the EU. <https://digital-strategy.ec.europa.eu/en/policies/desi>
- Eurostat. (2021). *Digital economy and society statistics — impact of COVID-19*. <https://ec.europa.eu/eurostat>
- Eurostat. (2024). *Digital economy and society statistics — households and individuals*. <https://ec.europa.eu/eurostat>
- Forcadell, F. J., Aracil, E., & Úbeda, F. (2020). The impact of corporate sustainability and digitalization on international banks' performance. *Global Policy*, 11(S1), 18–27. <https://doi.org/10.1111/1758-5899.12761>
- Gomber, P., Koch, J.-A., & Siering, M. (2017). Digital Finance and FinTech: Current research and future research directions. *Journal of Business Economics*, 87(5), 537–580. <https://doi.org/10.1007/s11573-017-0852-x>
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica*, 46(6), 1251. <https://doi.org/10.2307/1913827>
- Luo, Y., Tanna, S., & De Vita, G. (2016). Financial openness, risk and bank efficiency: Cross-country evidence. *Journal of Financial Stability*, 24, 132–148. <https://doi.org/10.1016/j.jfs.2016.05.003>
- Myovella, G., Karacuka, M., & Haucap, J. (2020). Digitalization and economic growth: A comparative analysis of Sub-Saharan Africa and OECD economies. *Telecommunications Policy*, 44(2), 101856. <https://doi.org/10.1016/j.telpol.2019.101856>
- Peshev, P. I. (2026). A panel study on the determinants of profitability of bulgarian commercial banks. *Journal of Risk and Financial Management*, 19(2), 156. <https://doi.org/10.3390/jrfm19020156>
- Schumpeter, J. A. (1942). *Capitalism, Socialism and Democracy*. Harper & Brothers.
- Stoykov, D. (2026). Integrated monitoring and performance analysis of off-grid photovoltaic systems using mppt controller, smartshunt, and temperature sensors. *Proceedings of the Bulgarian Academy of Sciences*, 79(4). <https://doi.org/10.7546/CRABS.2026.04.10>
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7%3C509::AID-SMJ882%3E3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7%3C509::AID-SMJ882%3E3.0.CO;2-Z)
- World Bank. (2024). *World Development Indicators*. <https://data.worldbank.org>

TOURISM SEASONALITY AND ITS EFFECTS ON LOCAL ECONOMIC DEVELOPMENT IN ALBANIA

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Abstract

Tourism has become one of the most important drivers of economic growth and local development in Albania. The sector contributes to national income, employment, foreign exchange inflows and regional business activity. However, Albania's tourism model remains strongly affected by seasonality, especially because of the dominance of summer coastal tourism. This paper examines tourism seasonality and its effects on local economic development in Albania, using a conference-style qualitative review of official statistics, institutional reports and tourism literature. INSTAT data show that foreign citizen arrivals reached 11.7 million in 2024, increasing by 15.2% compared with 2023, while WTTC estimates indicate that travel and tourism contributed almost ALL 565 billion to the Albanian economy in 2023 and supported almost 269,000 jobs. Despite these benefits, seasonality creates important local development challenges, including temporary employment, unstable business income, infrastructure pressure, informality, environmental stress, underutilized capacity outside summer and regional inequality. The paper also compares Albania with Greece, Montenegro and Croatia, showing that maritime tourism economies commonly face seasonal and territorial concentration, but differ in their capacity to extend tourism activity beyond peak summer months. The analysis argues that Albania should move from a volume-driven summer model toward a diversified, formalized and year-round tourism model. Key policy priorities include product diversification, municipal destination management, formalization of seasonal enterprises, workforce development, investment in inland and cultural tourism, and improved local tourism data. Reducing seasonality would strengthen local economic development by stabilizing employment, increasing local value added, improving municipal revenues and distributing tourism benefits more evenly across Albanian regions.

Keywords: Tourism Seasonality; Local Economic Development; Albania; Maritime Tourism; Sustainable Tourism; Regional Development

1. Introduction

Tourism has become one of the most dynamic sectors of the Albanian economy. During the last decade, the country has moved from being a relatively peripheral destination in the European tourism map toward a rapidly growing Mediterranean and Balkan destination. This expansion has been supported by increased international visibility, improved road and air connectivity, a growing accommodation base, relatively competitive prices, coastal attractions, cultural heritage, and the broader post-pandemic reorientation of tourism demand toward emerging destinations. The economic importance of this expansion is clear: tourism generates foreign exchange inflows, employment, business turnover, demand for local products, and municipal revenues. For small open economies such as Albania, tourism can therefore function

as both a macroeconomic growth sector and a territorial development instrument (World Travel & Tourism Council [WTTC], 2024; Albanian Investment Development Agency [AIDA], 2023).

The scale of Albania's recent tourism growth is substantial. INSTAT reported that foreign citizen arrivals reached 11,696,111 in 2024, compared with 10,155,640 in 2023, corresponding to an annual increase of 15.2% (Institute of Statistics [INSTAT], 2025a). The increase in foreign arrivals is not only a tourism-sector indicator; it also reflects rising demand for transport, accommodation, food services, cultural attractions, retail, urban services, and local infrastructure. In parallel, WTTC estimated that travel and tourism contributed almost ALL 565 billion to Albania's economy in 2023 and supported almost 269,000 jobs, indicating that tourism has become a major pillar of employment and output (WTTC, 2024). These figures justify the growing attention given to tourism in national development strategies and local economic planning.

However, the developmental effect of tourism depends not only on the number of visitors, but also on the timing, territorial distribution, quality, duration, and economic linkages of tourism activity. Albania's tourism model remains strongly affected by seasonality. The dominant product has historically been coastal summer tourism, concentrated around the Adriatic and Ionian coastline. The National Strategy for Sustainable Tourism 2019-2023 explicitly recognized that Albania's tourism product has been shaped by the beach, sea and sun model, which has an emphasized seasonal character and creates operational difficulties for coastal accommodation facilities outside the summer period (Ministry of Tourism and Environment, 2019). The more recent 2024-2030 tourism policy orientation also emphasizes product diversification, destination management, and the development of multiple tourism regions as instruments for reducing seasonal dependence (Global Sustainable Tourism Council [GSTC], 2024).

Tourism seasonality refers to the uneven distribution of tourism demand across months or seasons. In Albania, this is visible in the concentration of tourist flows, overnight stays, accommodation occupancy, local employment needs, municipal service pressure, and business revenues during the summer months. Seasonality is not inherently negative. A seasonal peak can generate large short-term income for local businesses and workers. Nevertheless, when a destination depends excessively on a short peak period, seasonality becomes a structural constraint. It produces temporary employment, unstable income, underutilized capacity outside the peak season, pressure on infrastructure, vulnerability to shocks, and uneven regional development (Baum & Lundtorp, 2001; Butler, 2001; Koenig-Lewis & Bischoff, 2005).

This paper examines tourism seasonality and its effects on local economic development in Albania. It also compares Albania with three regional maritime tourism economies: Greece, Montenegro and Croatia. These countries are relevant comparators because they share a strong dependence on coastal or island tourism, but they differ in scale, maturity, destination management capacity, and progress in extending tourism beyond the peak summer season. The central argument of the paper is that Albania's tourism expansion creates major local development opportunities, but the current seasonal and coastal concentration limits the sector's ability to generate stable, inclusive, formalized, and territorially balanced economic development.

2. Literature and Conceptual Background

The study of tourism seasonality has a long tradition in tourism economics and regional development. BarOn (1975) identified seasonality as one of the most persistent characteristics of tourism demand, while Butler (1980) linked destination development to cycles of exploration, growth, consolidation, stagnation, and possible rejuvenation or decline. In

seasonal destinations, the growth stage may generate rising visitor numbers but also structural pressures if product diversification, carrying capacity management, and reinvestment do not keep pace with demand. Later contributions emphasized that seasonality is not merely a pattern of visitor arrivals, but a multidimensional phenomenon affecting labour markets, business profitability, infrastructure use, environmental pressure, and destination competitiveness (Baum & Lundtorp, 2001; Butler, 2001; Koenig-Lewis & Bischoff, 2005).

From an economic perspective, tourism can stimulate local development through direct, indirect and induced effects. Direct effects occur in accommodation, restaurants, transport, entertainment and attractions. Indirect effects arise when tourism businesses purchase goods and services from local suppliers, including agriculture, fisheries, construction, maintenance, cleaning, laundry and retail. Induced effects occur when tourism workers and business owners spend income in the local economy. These mechanisms are particularly important in small municipalities where tourism may represent the dominant private-sector activity (UN Tourism, 2024; WTTC, 2024).

The difficulty is that these effects are weakened when tourism activity is temporally compressed. A hotel, restaurant or tour operator that operates at high intensity for three months but remains underused for the rest of the year faces a different development trajectory from a business with more stable annual demand. Seasonal concentration reduces the predictability of revenue, increases dependence on temporary labour, discourages training, and may lead firms to prioritize short-term turnover over long-term quality upgrading. For workers, seasonal tourism can provide entry into the labour market but often does not guarantee stable income, career progression, or social protection (Baum & Lundtorp, 2001; United Nations Albania, 2025).

Seasonality also has a spatial dimension. Maritime tourism economies often concentrate visitor demand in coastal zones, while inland regions remain peripheral despite cultural, natural and rural tourism potential. This can intensify regional disparities. Coastal municipalities receive rapid private investment and seasonal income, but also face congestion, environmental pressure, and infrastructure overload. Inland municipalities may have valuable tourism assets but lack market access, destination branding, transport connectivity, and qualified labour. In this respect, tourism seasonality and regional inequality are interconnected development problems (European Commission, 2017; United Nations Development Programme [UNDP], 2022).

Policy responses to seasonality usually include product diversification, events, cultural tourism, nature-based tourism, rural tourism, conference tourism, sport tourism, wellness tourism, and improved destination management. Events can redistribute demand outside the high season when they are strategically scheduled and connected to local identity (Getz, 2008). Sport and outdoor tourism may also extend the season in destinations with mountain, lake, river or adventure assets (Higham & Hinch, 2002). In Albania, these instruments are relevant because the country has a combination of sea, mountains, rivers, lakes, UNESCO heritage, religious heritage, gastronomy, archaeological sites and urban cultural assets. The challenge is not the absence of tourism resources, but the transformation of those resources into formal, marketable and year-round tourism products.

3. Methodology

This paper is designed as a conference-style conceptual and policy analysis supported by descriptive secondary data. It uses a narrative literature review and document-based analysis rather than primary survey data or econometric modelling. The evidence base includes official statistics, institutional reports and policy documents from INSTAT, the Ministry of Tourism and Environment of Albania, the Bank of Albania, AIDA, WTTC, UNDP, the European

Commission, United Nations Albania, MONSTAT, the Croatian Bureau of Statistics, and INSETE.

The analysis follows four steps. First, it summarizes the role of tourism in Albania's economy using available indicators on foreign arrivals, contribution to GDP, employment, exports and visitor demand. Second, it examines the seasonal structure of tourism demand and its local development implications. Third, it compares Albania with Greece, Montenegro and Croatia as maritime tourism economies facing similar but differently managed seasonality patterns. Fourth, it proposes policy directions for reducing seasonal dependence and strengthening local economic development.

The paper has two limitations. First, the analysis relies on published secondary data, which are not always available at the same level of granularity across countries or municipalities. Second, it does not estimate causal effects using monthly municipal data. A future empirical study could construct a panel dataset using monthly arrivals, overnight stays, accommodation occupancy, local employment, business turnover, municipal tax revenues, waste volumes, water consumption, emergency service use and tourism-related investments. Such a dataset would allow direct estimation of the relationship between seasonal tourism intensity and local economic outcomes.

4. Tourism Seasonality in Albania: Evidence and Local Economic Mechanisms

Available evidence confirms that Albania is experiencing rapid tourism growth together with persistent seasonal concentration. Foreign citizen arrivals increased from 10.16 million in 2023 to 11.70 million in 2024 (INSTAT, 2025a). This expansion strengthens the macroeconomic importance of the sector, but it also increases pressure on destinations whose infrastructure and labour markets are organized around resident populations rather than peak seasonal populations. To clarify this pattern, Table 1 summarizes selected indicators related to tourist arrivals, trip concentration, destination preferences, employment and the broader economic contribution of tourism in Albania.

Table 1. Selected indicators of tourism growth, seasonality and local economic relevance in Albania

Indicator	Value / evidence	Year / period	Source
Foreign citizen arrivals	11,696,111	2024	INSTAT (2025a)
Foreign citizen arrivals	10,155,640	2023	INSTAT (2025a)
Annual increase in foreign arrivals	15.2%	2024 vs. 2023	INSTAT (2025a)
Peak months for trips and nights spent	August, July, June and December	2024	INSTAT (2025b)
Main domestic trip purpose	Holiday and leisure: 54.1%	2024	INSTAT (2025b)
Preferred domestic destinations	Tirana 15.4%; Vlora 12.3%; Korça 10.9%; Durrës 8.6%	2024	INSTAT (2025b)
Travel and tourism GDP contribution	Almost ALL 565 billion	2023	WTTC (2024)
Travel and tourism jobs supported	Almost 269,000 jobs	2023	WTTC (2024)

Note. The indicators summarize official and institutional sources used descriptively in this paper. The table is not intended as an econometric dataset, but as a synthesis of the scale, seasonal concentration and local economic relevance of tourism in Albania.

INSTAT's tourism, holiday and trips survey for 2024 showed that trips and nights spent were concentrated in August, July, June and December, with August and July representing the strongest summer concentration and December reflecting holiday-related mobility (INSTAT,

2025b). The same survey reported that holiday and leisure was the main purpose of trips in Albania, accounting for more than half of trips, while preferred domestic destinations included Tirana, Vlora, Korca and Durres (INSTAT, 2025b). This pattern suggests that Albania combines a dominant leisure tourism model with territorial concentration in both coastal and urban/cultural destinations.

The local economic effects of this pattern are substantial. During the high season, coastal municipalities experience a sharp increase in demand for accommodation, restaurants, bars, transport, beach services, supermarkets, pharmacies, entertainment and public services. This generates income for businesses and households and creates multiplier effects for agriculture, fisheries, construction, maintenance, laundry, cleaning and local transport. For many family enterprises, the summer season provides the revenue needed to sustain the business throughout the year.

At the same time, the compression of income into a short period creates vulnerability. A coastal business may depend on a few weeks of high occupancy or high customer volume to cover annual costs. Bad weather, lower purchasing power in source markets, price competition, transport disruptions, reputational problems, environmental incidents, or broader geopolitical shocks can therefore affect the entire business year. This makes seasonal tourism less resilient than a more balanced year-round tourism economy.

Employment is affected in a similar way. Tourism supports a large number of jobs in Albania, but a considerable part of local tourism employment is seasonal. The summer peak creates opportunities for students, young workers, women and workers from nearby areas, but many of these jobs are temporary and may be informal. United Nations Albania (2025) emphasized that many small and seasonal tourism businesses remain outside the formal economy, limiting growth, exposing workers to vulnerability and affecting service quality and sustainability. This means that tourism growth does not automatically translate into good-quality employment unless it is accompanied by formalization, training and longer operating seasons.

Infrastructure pressure is another key local effect. Coastal municipalities must manage seasonal increases in water demand, waste generation, sewage loads, road traffic, parking demand, public safety needs and emergency care. The European Commission's tourism-led local economic development programme for Albania recognized the importance of municipal and business infrastructure, regional connectivity, energy efficiency and climate resilience in supporting sustainable tourism growth (European Commission, 2017). Without such investments, tourism expansion may generate congestion and environmental degradation that reduce destination quality over time.

The spatial implications are also important. Coastal destinations such as Durres, Vlora, Saranda, Himara and Shengjin benefit strongly from summer demand, while inland municipalities often remain underdeveloped despite having cultural, mountain, rural and natural attractions. This creates a policy paradox: Albania has tourism assets that could support a more diversified and year-round model, but market demand remains concentrated in the summer coast. National strategy documents have therefore emphasized the need to diversify Albania's tourism offer across tourism regions and products (GSTC, 2024; Ministry of Tourism and Environment, 2019).

5. Regional Comparison: Greece, Montenegro and Croatia

Albania's seasonality should be interpreted within the broader regional context of maritime tourism in Southern and Southeastern Europe. Greece, Montenegro and Croatia are useful comparators because each has a strong coastal or island tourism economy. The comparison shows that seasonality is not unique to Albania, but it also shows that the policy response depends on destination maturity, institutional capacity and product diversification.

Croatia represents a more mature Adriatic tourism destination. In 2024, Croatia recorded more than 21 million tourist arrivals and more than 108 million overnight stays, with the largest concentration along the Adriatic coast (Reuters, 2025; Croatian Bureau of Statistics, 2025). Croatia continues to face high peak-season demand, especially in coastal destinations and islands, but it has made more visible progress in extending activity into pre-season and post-season periods. This has been supported by destination management, cultural tourism, nautical tourism, urban tourism, events, and inland destination promotion. The Croatian lesson for Albania is that a strong maritime identity does not have to be abandoned; instead, it can be complemented with better product structuring and seasonal extension.

Montenegro is closer to Albania in scale and structural exposure. MONSTAT reported that Montenegro recorded 2,606,854 tourist arrivals and 15,594,299 overnight stays in 2024, with 96.1% of overnight stays generated by foreign tourists (Statistical Office of Montenegro [MONSTAT], 2025). This high dependence on foreign demand creates vulnerability to external shocks, transport access, price competitiveness and regional competition. Like Albania, Montenegro depends heavily on the Adriatic coast and must reduce vulnerability by developing inland, mountain, cultural and year-round tourism. The Montenegrin case shows that small coastal economies can grow quickly, but foreign-demand dependence and summer concentration can limit resilience.

Greece is a much larger and more established tourism economy. INSETE reported that inbound tourism in Greece increased in 2024, with international arrivals excluding cruise passengers rising from 32.7 million in 2023 to 36.0 million in 2024 (Institute of the Greek Tourism Confederation [INSETE], 2025a). Greece benefits from a globally recognized brand, island tourism, cultural heritage, air connectivity and diversified source markets. However, Greece also faces overtourism and strong territorial concentration in specific island and coastal destinations. The Greek case is important for Albania because it illustrates that high arrival numbers can create pressure on local infrastructure, housing, water resources, waste systems and destination carrying capacity if growth is not carefully managed.

The comparison with Greece, Montenegro and Croatia shows that tourism seasonality is not unique to Albania, but is a common structural feature of maritime tourism economies in the Mediterranean and Adriatic region. However, the scale, maturity and policy response differ across countries. Croatia and Greece represent more mature coastal tourism destinations with stronger international visibility, while Montenegro is closer to Albania in size and dependence on seasonal coastal demand. Table 2 summarizes the main characteristics of these four tourism models and highlights the policy lessons that are most relevant for Albania.

Table 2. Regional comparison of maritime tourism models and seasonality challenges

Country	Tourism model	2024 evidence	Main challenge	Lesson for Albania
Albania	Emerging coastal, cultural and nature destination	11.7 million foreign arrivals	Strong summer/coastal concentration	Diversify early and strengthen destination management
Montenegro	Small Adriatic coastal economy	2.61 million arrivals; 15.59 million overnights	Dependence on foreign and summer demand	Develop inland and year-round products
Croatia	Mature Adriatic destination	>21 million arrivals; >108 million nights	Persistent Adriatic peak demand	Use shoulder-season and product diversification strategies
Greece	Large island/coastal Mediterranean destination	36.0 million inbound arrivals excluding cruise	Overtourism and infrastructure pressure	Manage carrying capacity before destination quality declines

Compared with these countries, Albania is at an earlier stage of maritime tourism development. This is a strategic advantage as well as a risk. The advantage is that Albania can learn from the experiences of Croatia, Montenegro and Greece before overconcentration becomes more difficult to reverse. The risk is that Albania may reproduce the same negative effects if policy remains focused only on increasing visitor numbers. A low-cost, high-volume summer model can generate rapid short-term growth, but it can also produce congestion, informality, environmental stress and local dissatisfaction.

The regional comparison therefore supports a clear policy message: Albania should use its coastal tourism success as a platform for diversification, not as the only basis of tourism development. The objective should be to increase activity in April-June and September-November, strengthen cultural and inland tourism, improve destination management, and distribute tourism revenues across more municipalities. In this sense, the experiences of Greece, Montenegro and Croatia confirm that seasonality is manageable only when tourism policy moves beyond promotion and addresses infrastructure, skills, quality, formalization and territorial planning.

6. Discussion

The evidence reviewed in this paper suggests that tourism seasonality is one of the central structural challenges of Albania's tourism-led local economic development. The recent growth in foreign arrivals demonstrates that Albania has become a more visible and attractive destination, but the economic meaning of this growth depends on how tourism demand is distributed across time and territory. A tourism model concentrated in a short summer peak can generate high turnover, but it cannot by itself guarantee stable employment, formal business development, balanced municipal revenues or sustainable regional development.

The Albanian case is therefore characterized by a development paradox. On the one hand, tourism is a major opportunity for local economies. During the peak season, coastal municipalities experience a rapid increase in business activity, household income and employment. Hotels, restaurants, cafes, supermarkets, transport providers, beach services, entertainment businesses and local suppliers all benefit from increased visitor demand. For municipalities with limited industrial bases, tourism may be the most visible source of private-sector growth. This explains why many local communities view tourism expansion as a pathway to income generation and economic modernization.

On the other hand, the same seasonal concentration weakens the long-term development effect. When local businesses depend on a short high-revenue period, they become exposed to volatility. A weaker summer season can affect annual profitability. This uncertainty discourages long-term investment in staff training, quality improvement, digitalization and innovation. It also creates incentives for short-term pricing strategies and informal employment practices. In this sense, seasonality may increase annual visitor volume while limiting institutional and productive upgrading in local economies.

The labour-market effect is particularly important. Tourism can absorb labour quickly, but seasonal employment is not equivalent to sustainable employment. Temporary jobs may provide income for young people and students, but they often do not create stable career pathways. Workers may move between sectors or locations depending on the season, while employers may underinvest in training because they do not expect to retain staff throughout the year. This can weaken service quality and reduce the competitiveness of Albanian destinations compared with more mature markets. The policy implication is that workforce development must be linked to season extension. It is difficult to professionalize tourism labour when the business model itself remains limited to a few months.

Informality further complicates this relationship. When tourism businesses operate only for part of the year, formal registration, accounting, tax compliance and employment contracts may be perceived as costly or unnecessary. This reduces the fiscal return from tourism and limits worker protection. It also weakens data quality, because informal activity is harder to measure and therefore harder to plan. Formalization should therefore be understood not only as a fiscal-control measure, but also as a development instrument. A formal tourism sector can access finance, participate in official promotion, comply with quality standards, protect workers and contribute more reliably to local revenues.

Infrastructure pressure is another critical mechanism linking seasonality to local development. Coastal municipalities must manage peak-season populations that can be several times larger than the resident population. This affects water supply, waste management, sewage systems, roads, parking, beaches, public safety and emergency services. If infrastructure is designed for residents but used by a much larger seasonal population, service quality deteriorates. Visitors may experience congestion and lower satisfaction, residents may experience rising costs and reduced quality of life, and municipalities may face costs that exceed the fiscal benefits collected from tourism activity. This is why tourism development cannot be separated from urban planning and municipal investment.

The environmental dimension is closely related. Albania's coastal and natural assets are the foundation of its tourism appeal. If seasonal concentration damages beaches, ecosystems, water quality or urban environments, the sector undermines the very resources on which it depends. This risk is not theoretical. Mature destinations in the region show that unmanaged growth can produce overtourism, environmental pressure and social resistance. Greece illustrates the risks of island congestion and infrastructure stress, Croatia illustrates the challenge of managing high Adriatic demand, and Montenegro illustrates the vulnerability of small coastal economies dependent on foreign visitors. Albania still has the opportunity to avoid some of these problems by shifting early toward managed and sustainable growth.

Regional inequality is also central. The dominance of coastal summer tourism creates a geography of uneven benefits. Coastal municipalities receive intense demand, while many inland areas remain underintegrated into the tourism economy. Yet Albania has important assets beyond the coast: Berat and Gjirokastra as UNESCO heritage destinations, Korca and Shkodra as cultural and urban destinations, Theth and Valbona as mountain destinations, Permet as a gastronomy and nature destination, and the Vjosa corridor as a nature-based tourism asset. Developing these destinations would not only reduce pressure on the coast but also distribute income, employment and investment more evenly across the country.

A key lesson from the regional comparison is that seasonality cannot be solved only through marketing campaigns. Promotion may attract visitors, but it does not automatically create year-round products, qualified labour, transport access, local infrastructure or formalized enterprises. Seasonality must be addressed through integrated destination management. This includes municipal tourism planning, data collection, event calendars, product packaging, training, environmental monitoring, digital promotion, and public-private coordination. Albania's 2024-2030 tourism strategy correctly emphasizes tourism regions, product development, destination management and professional training; the key challenge is implementation at municipal and business level.

Reducing seasonality also requires a shift in performance indicators. Albania should not measure tourism success only by arrivals. Arrivals are politically visible but economically incomplete. More informative indicators include nights spent, average length of stay, expenditure per visitor, occupancy outside the high season, formal employment, local procurement, municipal revenue, visitor satisfaction and environmental pressure. A destination that receives fewer visitors but higher spending, longer stays and lower environmental pressure

may produce stronger local development than a destination that receives many low-spending visitors concentrated in a short peak.

Overall, tourism seasonality in Albania should be treated as both an opportunity and a warning. It is an opportunity because the high summer peak demonstrates strong market demand and international visibility. It is a warning because growth concentrated in a short period can reproduce structural weaknesses if it is not managed. Albania's strategic objective should therefore be to transform tourism from a seasonal consumption shock into a stable local development system. This requires extending the season, diversifying the product, formalizing enterprises, improving infrastructure, investing in skills and using data for municipal planning.

7. Policy Recommendations

First, Albania should develop a deliberate season-extension policy. The objective should be to increase tourism activity in the shoulder months, particularly April-June and September-November. This can be achieved through cultural events, sport tourism, gastronomy festivals, conferences, school and university travel, wellness packages, religious heritage routes, and nature-based tourism products.

Second, tourism product diversification should become a core local economic development policy. Coastal tourism should remain important, but it should be complemented by cultural, mountain, rural, gastronomic, ecological, health and conference tourism. This would reduce overdependence on the beach-sea-sun model and increase tourism's capacity to support year-round employment.

Third, municipalities should strengthen destination management. Local tourism observatories, monthly visitor indicators, event calendars, carrying capacity assessments, waste and water planning, and public-private coordination platforms would improve local decision-making. Tourism should be integrated with urban planning, transport, environmental management and public-service budgeting.

Fourth, formalization should be supported through simplified procedures, fiscal education, digital tools and incentives for small seasonal enterprises. Formal businesses should have easier access to promotion platforms, training, finance and municipal support. This would improve tax compliance and worker protection while strengthening service quality.

Fifth, Albania should invest in tourism skills. Training in hospitality management, foreign languages, digital marketing, food safety, tour guiding, environmental sustainability and customer service is necessary for moving from volume growth to value growth. Training policies should target both coastal and inland destinations.

Sixth, regional tourism development should be prioritized. Inland municipalities need better road access, signage, destination branding, digital visibility, visitor information services and accommodation quality. This would allow Albania to distribute tourism benefits beyond the coast and reduce regional inequality.

8. Conclusions

Tourism has become a central sector of Albania's economy, with strong contributions to foreign arrivals, employment, exports and local business activity. The rapid increase in foreign visitors confirms Albania's growing competitiveness as a Mediterranean and Balkan destination. However, the current tourism model remains strongly seasonal and geographically concentrated, especially around summer coastal demand.

The main conclusion of this paper is that tourism seasonality limits the capacity of tourism to function as a stable local economic development instrument. Seasonal tourism creates short-term income and employment, but it also generates temporary labour, informality, infrastructure pressure, environmental risk, business vulnerability and uneven regional

development. These challenges are not unique to Albania; they are also visible in Greece, Montenegro and Croatia. However, Albania's earlier stage of tourism development gives it an opportunity to learn from regional experiences and avoid a purely high-volume, peak-season growth model.

The future of Albanian tourism should be based on diversification, formalization and destination management. The country should not reduce the importance of coastal tourism, but it should extend the tourism season, increase inland and cultural tourism, strengthen municipal planning, professionalize the workforce and improve local data. Under these conditions, tourism can generate not only more visitors, but also more stable employment, higher local value added, stronger municipal revenues and more balanced regional development.

References

- Albanian Investment Development Agency. (2023). Tourism fact sheet 2023. AIDA. <https://aida.gov.al/>
- Bank of Albania. (2024). Analysis of developments in the external sector of the economy: 2024 Q3. Bank of Albania. <https://www.bankofalbania.org/>
- BarOn, R. V. (1975). Seasonality in tourism: A guide to the analysis of seasonality and trends for policy making. Economist Intelligence Unit.
- Baum, T., & Lundtorp, S. (Eds.). (2001). Seasonality in tourism. Pergamon.
- Butler, R. W. (1980). The concept of a tourist area cycle of evolution: Implications for management of resources. *Canadian Geographer*, 24(1), 5-12. <https://doi.org/10.1111/j.1541-0064.1980.tb00970.x>
- Butler, R. W. (2001). Seasonality in tourism: Issues and implications. In T. Baum & S. Lundtorp (Eds.), *Seasonality in tourism* (pp. 5-21). Pergamon.
- Croatian Bureau of Statistics. (2025). Tourist arrivals and nights in commercial accommodation, 2024. Croatian Bureau of Statistics. <https://podaci.dzs.hr/>
- European Commission. (2017). EU support to a tourism-led model for local economic development: IPA 2017 action programme for Albania. European Commission.
- Eurostat. (2025). Tourism statistics: Nights spent at tourist accommodation establishments. Eurostat. <https://ec.europa.eu/eurostat/>
- Getz, D. (2008). Event tourism: Definition, evolution, and research. *Tourism Management*, 29(3), 403-428. <https://doi.org/10.1016/j.tourman.2007.07.017>
- Global Sustainable Tourism Council. (2024). Ministry of Tourism and Environment of Albania joins and signs MOU with GSTC. GSTC. <https://www.gstc.org/>
- Higham, J., & Hinch, T. (2002). Tourism, sport and seasons: The challenges and potential of overcoming seasonality in the sport and tourism sectors. *Tourism Management*, 23(2), 175-185. [https://doi.org/10.1016/S0261-5177\(01\)00046-2](https://doi.org/10.1016/S0261-5177(01)00046-2)
- Institute of Statistics. (n.d.). Tourism statistics. INSTAT. <https://www.instat.gov.al/>
- Institute of Statistics. (2024). Movements of Albanian and foreign citizens, September 2024. INSTAT. <https://www.instat.gov.al/>
- Institute of Statistics. (2025a). Movements of Albanian and foreign citizens, December 2024. INSTAT. <https://www.instat.gov.al/>
- Institute of Statistics. (2025b). Survey on tourism, holiday and trips, January-December 2024. INSTAT. <https://www.instat.gov.al/>
- Institute of the Greek Tourism Confederation. (2025a). Tourism and Greek economy: Infographics 2023-2024. INSETE. <https://insete.gr/>
- Institute of the Greek Tourism Confederation. (2025b). Statistical bulletin no. 100: Special edition 2024 report. INSETE. <https://insete.gr/>
- Koenig-Lewis, N., & Bischoff, E. E. (2005). Seasonality research: The state of the art. *International Journal of Tourism Research*, 7(4-5), 201-219. <https://doi.org/10.1002/jtr.531>
- Manning, R. E., & Powers, L. A. (1984). Peak and off-peak use: Redistributing the outdoor recreation/tourism load. *Journal of Travel Research*, 23(2), 25-31. <https://doi.org/10.1177/004728758402300205>
- Ministry of Tourism and Environment. (2019). National strategy for sustainable tourism 2019-2023. Government of Albania.
- Reuters. (2025). Croatia's tourist arrivals rise 4% in 2024, ministry says. Reuters.

- Statistical Office of Montenegro. (2025). Arrivals and overnights of tourists, total 2024. MONSTAT. <https://monstat.org/>
- United Nations Albania. (2025). Albania charts a roadmap for formalizing tourism enterprises. United Nations Albania. <https://albania.un.org/>
- United Nations Development Programme. (2022). Tourism and hospitality in Albania 2022: An assessment of tourism trends and performance. UNDP Albania.
- UN Tourism. (2024). World tourism barometer. UN Tourism.
- World Bank. (2024). Western Balkans regular economic report. World Bank. <https://www.worldbank.org/>
- World Travel & Tourism Council. (2024). Albania's travel and tourism sector bursts onto the world stage. WTTC. <https://wtcc.org/>

TRANSPARENT FINANCIAL MANAGEMENT: LINKING TRUST, ACCOUNTABILITY, AND BETTER DECISIONS

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Abstract

Transparent financial management is often treated as a technical upgrade: publish more reports, increase dashboard access, and tighten disclosure routines. Yet transparency frequently underperforms because information visibility alone does not guarantee better judgment, better choices, or better accountability. This conceptual paper proposes a managerial model in which transparent financial management improves decision quality through two linked mechanisms: (1) trust—trust in the numbers and trust in the fairness of how numbers are used; and (2) accountability quality—whether accountability is enacted as learning and correction versus blame and compliance. Recent evidence across public budgeting and governance shows that transparency is associated with trust outcomes but with heterogeneous effects depending on context and design. Contemporary digital-work research further suggests that “more visibility” can either strengthen or distort accountability depending on how transparency is practiced and normed. Integrating these strands with modern transparency measurement and practical budgeting guidance, the paper argues that transparent financial management produces better decisions when it is designed for interpretability and embedded in a learning-oriented accountability climate, rather than a punitive performance climate. It closes with propositions and implementation guidance for managers who want transparency to generate better decisions instead of defensive behaviors.

Keywords: Financial management; transparency; trust; accountability; decision quality; management control; digital visibility

1. Introduction

Financial management is commonly described as a set of tools: budgets, forecasts, cash-flow projections, variance analysis, and periodic performance reporting. In practice, however, financial management also operates as a *social system* that shapes attention, emotion, and voice. It influences what people notice, what they fear, what they conceal, and what they feel safe to say out loud. This is precisely why “transparency reforms” can produce opposite outcomes in two organizations that appear structurally similar. In one setting, broader access to the drivers behind financial results accelerates learning, corrective action, and coordination. In another, the same visibility amplifies anxiety, incentivizes “safe” reporting, and encourages short-term decisions that protect managers from blame rather than protecting organizational performance.

The central challenge is that transparency is often implemented as an information-disclosure project—more reports, more dashboards, more distribution—while its managerial value depends on whether the information is usable for sensemaking and action. Contemporary guidance increasingly treats transparency as multidimensional, emphasizing not only availability but also clarity, interpretability, accessibility, and credibility (OECD, 2025a).

When these elements are weak, “more transparency” can paradoxically produce less understanding: managers become overwhelmed, rely on simplified cues, and anchor on a narrow set of visible targets while ignoring drivers and uncertainty.

A second challenge is that transparency is frequently implemented without redesigning accountability routines. Accountability is not simply the presence of metrics or a reporting calendar; it is a relational process in which actors must explain and justify decisions to a forum that can question and respond (Bovens, 2007). In organizations, these forums may be monthly performance reviews, executive meetings, finance committees, or cross-functional steering groups. The same numbers can trigger learning in one forum and fear in another. When the forum is blame-oriented, transparency becomes surveillance: people manage impressions, delay bad news, and optimize the “story” rather than the underlying reality. When the forum is learning-oriented, transparency becomes shared sensemaking: assumptions are clarified, weak signals are surfaced earlier, and corrective actions become feasible before problems harden into crises. Recent research illustrates that accountability can be enacted in more “intelligent” ways—preserving responsibility while reducing the escalation of monitoring, defensiveness, and performative compliance (Helle & Roberts, 2024).

A third challenge is behavioral. Even with high-quality information, decision-makers do not behave as neutral calculators. Under uncertainty, people anchor on targets, overweight salient cues, and selectively interpret information that protects identity or status (Tversky & Kahneman, 1974). This matter because transparency often increases the salience of specific indicators—targets, variances, rankings—thereby shaping decisions through attention and framing. In other words, the organizational design of transparency—how information is structured, narrated, discussed, and used in evaluation—may matter as much as the information itself.

These realities motivate a practical managerial question: When does transparent financial management strengthen trust, improve accountability, and generate better decisions—and when does it generate defensive reporting and poorer choices? Recent evidence suggests that transparency can improve trust on average, but effects are heterogeneous and depend on design and context (Wang & Guan, 2023). Similarly, digital visibility can strengthen accountability but can also distort it when transparency is practiced as continuous monitoring rather than as shared sensemaking (Zhang, 2024). Taken together, this implies that transparency is not a linear “input → output” mechanism; it operates through social and organizational pathways that can either reinforce or undermine managerial effectiveness.

The purpose of this paper is to explain, in managerial terms, *how* transparent financial management translates into decision quality—and *why* it sometimes fails. Rather than treating transparency as a purely informational reform, the paper develops a conceptual model in which transparent financial management affects decision quality through two linked mechanisms: trust (trust in the numbers and in the fairness of their use) and accountability quality (whether accountability forums generate learning and corrective action or fear and strategic compliance). The paper also highlights boundary conditions that determine whether transparency is likely to help or harm, including information design (clarity versus overload), accountability climate (learning-oriented versus punitive), and digital visibility norms (how transparency is enacted in practice) (Wang & Guan, 2023; Zhang, 2024).

By clarifying these mechanisms, the paper contributes a practical framework for managers and organizational designers who want transparency to deliver its promised benefits—better coordination, earlier correction, and more robust decisions—without triggering the defensive dynamics that often accompany increased visibility.

2. What “transparent financial management” means in practice

Many organizations operationalize transparency as “more reporting”: adding KPIs, increasing the frequency of updates, expanding dashboard access, and circulating larger reporting packs. This is a common failure mode because it treats transparency as a matter of *quantity* rather than *usefulness*. In practice, a wider distribution of numbers can still leave the organization functionally opaque if the information is difficult to interpret, inconsistent across systems, or detached from the decisions managers actually need to make. A modern managerial definition must therefore move beyond disclosure and include interpretability and credibility.

In this paper, transparent financial management refers to the design and use of financial planning, reporting, and review practices that make financial reality visible, interpretable, credible, and accessible to relevant decision-makers in time to act (OECD, 2025a). This definition deliberately emphasizes action: transparency is not an end-state (“information exists”), but a capability (“information can be understood and used to decide”). Contemporary guidance on budget institutions reinforces this view by describing transparency as a quality of information that supports informed decision-making across the budget cycle, not simply a publication obligation (OECD, 2024; OECD, 2025a, 2025b).

In operational settings, organizations increasingly complement normative definitions of transparency with measurement instruments that capture perceived information quality and managerial usability; for example, validated short scales have been proposed to assess organizational transparency as a multidimensional construct (Hossiep et al., 2024). In public-sector financial management, cross-national benchmarking initiatives such as the Open Budget Survey provide additional institutionalized reference points for transparency, oversight, and public participation, while PEFA-based work links transparency and accountability to the performance of public financial management systems (International Budget Partnership, 2023; PEFA, 2024).

Viewed as a managerial capability, transparent financial management can be understood through four interlocking dimensions that show up in everyday routines.

First, transparency requires visibility and access. Decision-makers must be able to obtain the financial information relevant to their responsibilities without informal gatekeeping or dependency on personal networks. When access is limited—whether by hierarchy, siloed systems, or selective sharing—financial management becomes political: those who control access control the narrative. Visibility does not mean everyone sees everything, but rather that the right people can see what they need, when they need it, to make accountable decisions (OECD, 2025a).

Second, transparency requires interpretability. Even when numbers are available, they may not be usable. Interpretability means financial reports communicate drivers, assumptions, and boundaries in language managers can use—not only accountants. It includes stable definitions, clear categories, and short narratives that explain why results changed. It also includes explicit handling of uncertainty: what is known, what is estimated, and what could plausibly change. Without interpretability, transparency collapses into “data exposure” rather than organizational understanding.

Third, transparency requires credibility. Credibility is built when numbers are consistent across reports, traceable to sources, and openly corrected when wrong. It is undermined when stakeholders perceive selective presentation—what managers often call “presentation management,” where reporting becomes a performance in which unpleasant realities are delayed, minimized, or reframed. Credibility is not only a technical matter of data quality; it is also a behavioral matter of whether people believe the financial system is being used to reveal reality or to manage impressions.

Fourth, transparency requires decision relevance. Transparency is not achieved when organizations publish comprehensive financial detail; it is achieved when financial information reliably supports choices. Decision relevance means the information is organized around trade-offs, priorities, constraints, and scenarios. It makes clear what decisions the numbers are meant to inform—resource allocation, staffing, procurement, investment timing, service levels—and it links outcomes to drivers in a way that helps managers understand what levers they can realistically pull. This aligns with recent institutional guidance that emphasizes the role of transparent financial information in enabling “informed spending decisions” and stronger governance throughout budgeting and implementation (OECD, 2024; OECD, 2025a).

An important implication follows from this definition. Transparency that increases visibility without interpretability can reduce decision quality. When organizations expand reporting but do not improve clarity, people experience information overload and respond predictably: they anchor on a small subset of salient metrics (often targets, top-line variances, or red/green indicators), while ignoring drivers, assumptions, and uncertainty (Tversky & Kahneman, 1974; Arnold et al., 2023; Lega et al., 2024). Under pressure, what is most visible becomes what is most “real,” even when it is only a partial representation. In such cases, transparency can unintentionally narrow attention, encourage short-term fixes, and intensify defensive reporting—precisely the opposite of what transparency reforms intend to achieve.

For these reasons, transparent financial management should be treated less as a reporting expansion and more as a design problem: selecting decision-relevant information, presenting it with interpretive scaffolding, ensuring credibility through traceability and correction, and embedding the whole system in routines that promote learning rather than fear (OECD, 2024; OECD, 2025a).

3. Trust as the first mechanism linking transparency to outcomes (expanded; narrative)

Transparency influences outcomes primarily by changing how uncertainty is experienced and how legitimacy is judged. When people cannot see how money is managed—how budgets were constructed, why costs moved, what assumptions were used, or who decided what—uncertainty does not remain neutral. It is filled with interpretation. In many organizations, the vacuum created by low transparency is quickly occupied by rumor, internal politics, selective anecdotes, and “plausible stories” about hidden motives. In that setting, managers and employees do not merely lack information; they lack confidence in the integrity of the system. By contrast, when financial information is clear, consistent, and credibly explained, transparency reduces ambiguity and signals that the organization is not relying on secrecy to maintain control. That signal can strengthen trust because it lowers the perceived probability that decisions are arbitrary, manipulated, or self-serving (Wang & Guan, 2023).

In this paper, trust is treated as the first key mechanism because it shapes whether financial information becomes usable for coordination and improvement or becomes a source of anxiety and strategic behavior. Trust is also cumulative: it is built through repeated experiences of credibility and fairness, and it collapses quickly when stakeholders repeatedly encounter surprises, inconsistencies, or perceived manipulation. Importantly, trust in transparent financial management has at least two distinct forms that operate together but can diverge in practice.

Related organizational research underscores that trust is not merely attitudinal but behaviorally consequential: higher organizational trust has been linked to stronger organizational commitment and to employee well-being through supportive organizational contexts, reinforcing the plausibility of trust as a mechanism through which transparency can shape managerial behavior (Alomran et al., 2024; Czerw et al., 2025).

3.1 Trust in the numbers

The first form is trust in the numbers—the belief that financial information is accurate enough and coherent enough to be used for decisions. This kind of trust depends on perceived stability of definitions, visible reconciliation between reports, traceable sources, and plausible explanations for deviations. When managers repeatedly experience “surprise” overruns, unexplained revisions, or late adjustments that change the meaning of prior reports, they stop treating the financial system as a decision tool and begin treating it as a political instrument or as an unreliable administrative process. At that point, more reporting can backfire: additional numbers are interpreted as impression management rather than disclosure, and the organization enters a cycle in which reporting expands while credibility declines.

In a managerial sense, trust in the numbers is not achieved by perfection; it is achieved by predictability and honesty. Stakeholders often tolerate uncertainty and estimation if the system clearly labels what is estimated, explains what changed, and corrects errors transparently. Conversely, even small errors can damage trust when they appear systematic or strategically convenient. Once credibility is questioned, finance teams are forced into defensive reporting, and operational managers disengage from financial dialogue—both of which undermine decision quality.

3.2 Trust in the fairness of use

The second form is trust in the fairness of use—the belief that financial visibility will be used predictably and constructively rather than punitively. Even accurate information can fail to build trust if it is used as a weapon. If managers experience financial visibility primarily as a mechanism to assign blame, they adapt in highly predictable ways: they hide uncertainty, delay bad news, minimize disclosure of risks, and shift attention from improving performance to protecting themselves. In such environments, transparency increases stress but reduces honesty. The organization appears more “controlled” on paper while becoming less capable of early correction in reality.

This is why trust depends not only on what is disclosed but on *how the organization responds* to what is disclosed. Trust grows when transparency is embedded in a fair, predictable process of inquiry and correction—where deviations trigger questions about drivers and assumptions, not automatic attribution of incompetence or misconduct. Trust erodes when transparency triggers humiliation, reputational damage, or arbitrary sanctions. Put simply, for transparency to build trust, people must believe that revealing reality will not be punished more than concealing it.

3.3 Recent evidence supporting the trust mechanism

Recent empirical work supports this mechanism in settings where stakeholders rely on financial information to judge stewardship. For example, perceived financial transparency has been associated with higher trust and better perceived performance in nonprofit donor contexts (Ghoorah, 2025). Although nonprofit donor relationships differ from internal corporate budgeting, the underlying logic is the same: transparency reduces information asymmetry and signals integrity, which increases stakeholders’ willingness to rely on the organization’s claims. That mechanism is directly relevant to internal financial management because internal stakeholders—department heads, project managers, operational teams—also make decisions under vulnerability, relying on whether they believe financial information is reliable and fairly used.

At a broader level, evidence suggests transparency has, on average, a positive relationship with trust, but with substantial heterogeneity across contexts (Wang & Guan, 2023). That heterogeneity is theoretically important for management because it implies transparency is not

universally trust-building. Instead, design and context moderate the relationship: transparency is more likely to build trust when it is accompanied by interpretability, credibility, and fair use norms, and less likely to do so when transparency is experienced as surveillance, when information is overwhelming, or when accountability forums are punitive. In other words, trust is not merely an outcome of transparency; it is a conditional response shaped by the organizational meaning of visibility (Wang & Guan, 2023; Ghoorah, 2025).

3.4 Why trust matters for outcomes

Finally, trust matters because it changes behavior in ways that directly affect performance and decision quality. When trust is high, managers share weak signals early, ask for help sooner, and coordinate around the same financial reality. When trust is low, managers ration information, avoid raising risks, and prioritize defensible narratives over accurate ones. Thus, transparency influences outcomes not simply by “informing” people, but by shaping whether people believe the system is credible and whether they feel safe using it honestly. This is why trust is the first mechanism in the model linking transparent financial management to accountability quality and better decisions (Wang & Guan, 2023).

4. Accountability quality as the second mechanism: learning versus punishment

4.1 Accountability as a managerial practice, not a reporting ritual

Accountability in financial management is often reduced to compliance routines: deliver the monthly pack, document the variance, obtain sign-off. A managerial understanding is different. Accountability is a relationship where an actor must explain and justify actions to a forum with the authority to question and respond (Bovens, 2007). In organizations, the forum may be leadership teams, finance committees, boards, or performance review meetings. The key point is that accountability is enacted through interaction and interpretation, not through documents alone.

This matter because transparency expands visibility, but accountability determines what visibility *does*. Financial information supports responsible action when it enables meaningful questioning—what changed, why, and what should we do now—and when explanations are treated as inputs for improvement rather than admissions of personal failure.

Accounting and accountability scholarship has long argued that accounting systems function inside broader accountability arrangements that shape behavior through organizational meaning, not just through technical measurement (Roberts & Scapens, 1985). More recent work demonstrates that hierarchical accountability can be enacted “more intelligently” when control systems are mobilized to build responsibility and corrective action rather than escalating surveillance and defensive routines (Helle & Roberts, 2024).

In practice, accountability quality is visible in routines: how review meetings are run, what kinds of questions are rewarded, whether uncertainty can be voiced, whether corrective action is tracked, and whether learning is institutionalized. Transparent financial management becomes productive only when accountability routines translate visibility into learning and coordinated adjustment.

4.2 Accountability climate and the transparency paradox

Organizations differ dramatically in the climate through which accountability is experienced. In a learning-oriented climate, accountability is primarily about answerability and improvement: managers explain deviations, clarify uncertainty, and agree on corrective actions. In a punitive climate, accountability becomes fault-finding: deviations are treated as personal failure, and uncertainty is punished.

This distinction explains why transparency can produce opposite effects. Under learning-oriented accountability, transparency improves coordination by enabling earlier detection of risks and earlier correction. Under punitive accountability, transparency can intensify fear and strategic behavior: managers delay bad news, avoid experimentation, narrow decisions to “safe” short-term moves, and focus on producing defensible narratives rather than accurate ones (Roberts & Scapens, 1985; Helle & Roberts, 2024).

Digital transparency intensifies this paradox because modern tools make work and outcomes continuously visible. Recent project research shows that digital technologies can reinforce both hierarchical and socializing accountability, and outcomes depend on how transparency affordances are actualized through practice and aligned with accountability goals (Zhang, 2024).

In short, transparency does not automatically create better accountability; the accountability climate determines whether transparency becomes a resource for learning or a trigger for fear.

5. Decision quality: why transparency does not automatically produce better decisions

Managers frequently assume that once financial information is more transparent, decisions will improve. This assumption ignores two issues: how humans process information under uncertainty and how organizational climates shape what information is voiced.

From a behavioral standpoint, decision quality depends less on the volume of information and more on whether information supports accurate sensemaking. Under uncertainty, decision-makers rely on heuristics: they anchor on targets, overweight salient deviations, and simplify complexity into narratives that fit prior beliefs (Tversky & Kahneman, 1974). Transparency can reduce uncertainty when it clarifies drivers and assumptions; it can also increase noise when reporting becomes overloaded or poorly structured, causing people to latch onto a narrow subset of metrics.

Decision quality also depends on whether transparency supports constructive trade-offs. Financial management requires balancing objectives—cost control versus service quality, short-term results versus capability building, liquidity versus investment. Transparency improves decision quality only when it makes these trade-offs explicit and discussable and when forums tolerate uncertainty and adaptive change (OECD, 2024; OECD, 2025a).

Finally, trust shapes decision quality indirectly by changing what gets spoken. In high-trust settings, people surface weak signals early—emerging cost drivers, procurement risks, operational bottlenecks—before they become crises. In low-trust settings, people withhold until evidence is unavoidable, narrowing decision options. Empirical evidence that perceived financial transparency builds trust in stakeholder decision contexts supports this logic and implies similar dynamics within organizations (Ghoorah, 2025; Krah & Mertens, 2023).

6. Conceptual model and propositions (formal theory-development style)

The theoretical model advanced in this paper is intentionally parsimonious and mechanism-centered. It posits that transparent financial management influences decision quality primarily through two sequential mediators: trust and accountability quality. The model does not assume a direct, invariant “more transparency → better outcomes” relationship. Instead, it treats transparency as an enabling condition whose effects are contingent on how transparency is designed (e.g., interpretability and credibility) and enacted within organizational accountability arrangements (OECD, 2025a; Wang & Guan, 2023).

At the first stage, transparent financial management is conceptualized as a managerial capability that renders financial reality visible in a way that is interpretable, credible, and accessible to relevant decision-makers in time to act (OECD, 2025a). This capability is theorized to reduce ambiguity and informational asymmetry, thereby shaping stakeholders’

inferences about integrity and competence. Evidence indicates that transparency is, on average, positively associated with trust, although the magnitude and direction of effects vary across contexts—implying the relevance of moderating conditions (Wang & Guan, 2023). In the present model, the primary psychological mechanism translating transparency into behavioral consequences is trust, defined here as confidence in both the reliability of financial information and the fairness of its organizational use.

At the second stage, trust is theorized to influence the quality of accountability enactment. Specifically, higher trust is expected to decrease defensive behavior, increase willingness to disclose uncertainty and emerging risks, and increase the feasibility of inquiry-oriented review routines. Recent research demonstrates that accountability can be enacted in more “intelligent” ways, wherein accounting controls are mobilized to sustain responsibility and corrective action while limiting escalation of surveillance and defensive compliance (Helle & Roberts, 2024). Complementary empirical evidence in financial transparency contexts suggests that perceived transparency can correlate with trust and favorable stakeholder judgments, reinforcing the plausibility of trust as a pathway by which transparency shapes subsequent governance processes (Ghoorah, 2025).

At the third stage, accountability quality is proposed as the proximal organizational mechanism through which transparency and trust are converted into decision quality. Accountability quality refers to the extent to which accountability forums (e.g., review meetings, performance dialogues, steering committees) operate as learning-oriented processes that surface drivers and assumptions, enable timely corrective action, and support coordinated adaptation rather than functioning primarily as punitive evaluation rituals. The model anticipates that learning-oriented accountability will enhance decision quality by improving problem framing, supporting explicit trade-offs, and enabling earlier course correction.

Crucially, the model treats digital visibility and accountability climate as boundary conditions that can strengthen, attenuate, or invert the proposed relationships. Digital transparency can amplify visibility, but accountability outcomes depend on the norms and goals attached to visibility—whether transparency is enacted as shared sensemaking or as continuous monitoring. Empirical work in digitally mediated project environments shows that transparency practices can produce countervailing accountability dynamics (“too little” or “too much”), depending on how digital affordances are enacted and interpreted (Zhang, 2024). In parallel, evidence from transparency–trust research indicates that effects are heterogeneous across contexts, reinforcing the need to specify moderators such as interpretability, fairness norms, and evaluative climate (Wang & Guan, 2023).

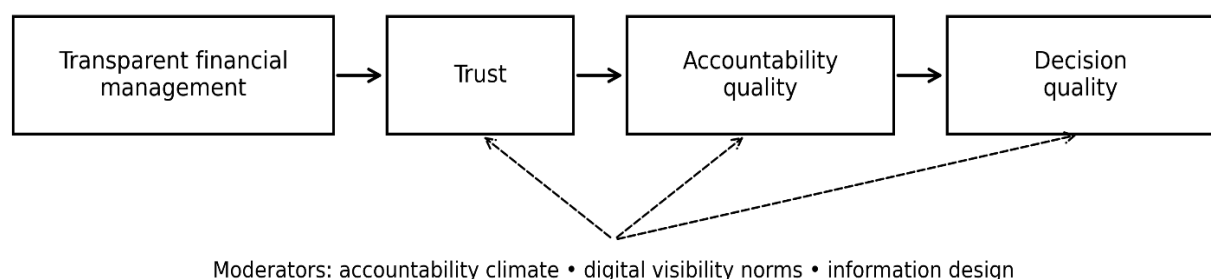


Figure 1. Conceptual model

The model developed in this paper implies that the managerial value of transparency depends less on the *existence* of financial information and more on the *organizational conditions* under which that information is interpreted and used. A recurring implementation error is to equate transparency with visibility and to assume that visibility will automatically improve decisions. In practice, transparency becomes effective only when it is designed for interpretation,

embedded in learning-oriented accountability routines, and governed by explicit norms that prevent digital visibility from drifting into surveillance.

First, transparency should be designed for interpretation rather than inspection. Financial reporting packs frequently expand over time, yet the marginal informational value of additional metrics is often low while the cognitive burden on managers increases. When transparency becomes a data dump, decision-makers predictably respond by simplifying: they anchor on a small set of salient indicators (targets, red/green statuses, top-line variances) and under-attend to drivers, assumptions, and uncertainty. This is a classic behavioral pattern in judgment under uncertainty: salience and anchoring shape what becomes “real” in managerial cognition, even when the full dataset contains more nuanced signals (Tversky & Kahneman, 1974). Consequently, organizations should treat transparency as an information-design problem: stabilize definitions, clearly disclose assumptions, and structure reporting around drivers and scenarios that are decision-relevant, rather than maximizing volume.

Second, organizations should redesign accountability forums so that transparency is converted into learning and corrective action rather than into defensiveness. Accountability is not merely a reporting calendar; it is a relational process enacted in forums where decisions are explained, questioned, and evaluated (Bovens, 2007). If review meetings are implicitly blame-oriented, transparency becomes a mechanism for exposure, and rational actors adapt through strategic reporting, delayed escalation, and risk-avoidant choices that protect reputations rather than improve outcomes. Recent evidence demonstrates that accountability can be enacted in more “intelligent” ways, where accounting controls are mobilized to sustain responsibility while avoiding escalation of monitoring and performative compliance (Helle & Roberts, 2024). The managerial implication is that organizations should explicitly script accountability routines toward inquiry (What changed? Why? What assumptions failed?), toward actionable correction (What will we do differently?), and toward shared responsibility (Who must coordinate?), rather than toward fault attribution.

Third, leaders should treat digital visibility as a social practice rather than a technical feature. Digital dashboards and real-time reporting systems extend visibility, but they do not automatically create constructive accountability. The organizational meaning of visibility is shaped by norms: what counts as acceptable variation, how anomalies are interpreted, how quickly issues must be escalated, and whether disclosure is met with support or sanction. Empirical work in project environments shows that digital transparency can strengthen accountability but can also generate excessive monitoring and politicized interpretation—particularly when transparency is practiced as continuous evaluation rather than shared sensemaking (Zhang, 2024). Therefore, organizations implementing digital transparency should explicitly articulate the purpose of visibility (coordination and learning versus inspection), define how data will be used in evaluation, and protect space for discussing uncertainty without penalty.

Finally, transparent financial management should be used to widen the decision frame, not narrow it. One of the most valuable contributions of transparency is its capacity to shift managerial attention from totals to the underlying logic of performance: drivers, constraints, assumptions, and trade-offs. This aligns with contemporary institutional guidance that emphasizes the quality of budget information for “informed spending decisions,” stressing that transparency should support deliberation across priorities and scenarios rather than functioning only as retrospective documentation (OECD, 2024; OECD, 2025a). In practical terms, this means that transparency initiatives should explicitly link financial metrics to operational drivers and strategic choices, enabling managers to reason about trade-offs instead of merely reacting to variances.

Taken together, these implications reinforce the central claim of the paper: transparency improves outcomes when it strengthens trust and enables learning-oriented accountability, but

it can degrade performance when it is implemented as high-visibility monitoring without interpretive scaffolding and without constructive accountability norms (Bovens, 2007; Helle & Roberts, 2024; Zhang, 2024; OECD, 2024; OECD, 2025a).

Conclusion

Transparent financial management can improve decision quality, but it should not be treated as a mechanical pipeline in which “more disclosure” reliably produces better outcomes. The central argument of this paper is that transparency operates through organizational mechanisms—most notably trust and accountability quality—that determine whether visibility becomes a resource for learning or a trigger for defensiveness. When financial information is accessible but also interpretable and credible, it reduces ambiguity and supports a shared understanding of constraints, key drivers, and priorities. Under these conditions, transparency is more likely to build trust in both the numbers and in the fairness of their use, thereby enabling accountability forums that emphasize inquiry, early problem detection, and corrective action. However, transparency can also be counterproductive when it is enacted primarily as surveillance within punitive accountability climates. In such contexts, increased visibility may intensify impression management, delay disclosure of risks, narrow managerial attention to a small set of salient targets, and encourage short-term choices that protect reputations rather than organizational performance. The implication is not that transparency is undesirable, but that transparency must be designed and governed: the *format* of information, the *norms* of its use, and the *orientation* of accountability routines determine whether transparency strengthens or undermines decision-making.

The practical agenda is therefore straightforward but non-trivial. Organizations seeking the benefits of transparent financial management should design transparency for understanding, not inspection; cultivate credibility through consistency, traceability, and prompt correction; and institutionalize accountability as learning-oriented practice rather than blame-oriented evaluation. Future research should test the model’s proposed mechanisms and boundary conditions—particularly the moderating roles of accountability climate, information design, and digital visibility norms—to explain when transparency reliably improves decision quality and when it produces defensive and counterproductive responses.

References

- Alomran, A. M., Ahmed, T. S. A. A., & Kassem, A. M. (2024). Impact of organizational trust on organizational commitment: The moderating effect of national identity. *Cogent Social Sciences*, 10(1), 2309712. <https://doi.org/10.1080/23311886.2024.2309712>
- Arnold, M., Goldschmitt, M., & Rigotti, T. (2023). Dealing with information overload: A comprehensive review. *Frontiers in Psychology*, 14, 1122200. <https://doi.org/10.3389/fpsyg.2023.1122200>
- Bovens, M. (2007). Analysing and assessing accountability: A conceptual framework. *European Law Journal*, 13(4), 447–468. <https://doi.org/10.1111/j.1468-0386.2007.00378.x>
- Czerw, A., Grabowski, D., Chudzicka-Czupala, A., & Stapor, K. (2025). Trust in the organization as a mediator in the relationship of good organizational context with employee well-being. *International Journal of Occupational Medicine and Environmental Health*, 38(4), 335–351. <https://doi.org/10.13075/ijomeh.1896.02615>
- Ghoorah, U., Mariyani-Squire, E., & Zoha Amin, S. (2025). Relationships between financial transparency, trust, and performance: An examination of donors’ perceptions. *Humanities and Social Sciences Communications*, 12, Article 315. <https://doi.org/10.1057/s41599-025-04640-2>
- Helle, G., & Roberts, J. (2024). Accountability for responsibility: A case study of a more intelligent enactment of accountability. *Accounting, Auditing & Accountability Journal*, 37(3), 790–815. <https://doi.org/10.1108/AAAJ-07-2021-5369>

- Hossiep, C. R., Märtings, J., & Schewe, G. (2024). Measuring organizational transparency with 10 items: Validation of a German short scale. *Measurement Instruments for the Social Sciences*, 6, Article e11209. <https://doi.org/10.5964/miss.11209>
- International Budget Partnership. (2023). Open Budget Survey 2023. International Budget Partnership.
- Krah, R., & Mertens, G. (2023). Financial transparency, trust and willingness to pay in local governments of sub-Saharan Africa. *Journal of Public Budgeting, Accounting & Financial Management*, 35(6), 100–120. <https://doi.org/10.1108/JPBAFM-06-2022-0110>
- Lega, M., Giunta, B., Pirnay, L., Simonofski, A., & Burnay, C. (2024). Reducing information overload in e-participation: A data-driven prioritization framework for policy-makers. *International Journal of Information Management Data Insights*, 4, 100264. <https://doi.org/10.1016/j.jjime.2024.100264>
- OECD. (2024). OECD Journal on Budgeting, Volume 2024 Issue 1. OECD Publishing. https://www.oecd.org/en/publications/oecd-journal-on-budgeting-volume-2024-issue-1_16a2e919-en.html
- OECD. (2025a). Quality budget institutions: Developments in OECD countries. OECD Publishing. https://www.oecd.org/en/publications/quality-budget-institutions_8e811202-en.html
- OECD. (2025b). Budget transparency. In *Quality budget institutions: Developments in OECD countries*. OECD Publishing. https://www.oecd.org/en/publications/quality-budget-institutions_8e811202-en/full-report/budget-transparency_ed612352.html
- OECD. (2025c). Informed spending decisions. In *Quality budget institutions: Developments in OECD countries*. OECD Publishing. https://www.oecd.org/en/publications/quality-budget-institutions_8e811202-en/full-report/informed-spending-decisions_7fe0254b.html
- Public Expenditure and Financial Accountability (PEFA). (2024). Public financial management and public accountability (Research Paper Series). PEFA Secretariat. <https://www.pefa.org/sites/default/files/resources/downloads/PEFA%20Report%20PFM%20and%20Accountability%2020241029.pdf>
- Roberts, J., & Scapens, R. (1985). Accounting systems and systems of accountability—Understanding accounting practices in their organisational contexts. *Accounting, Organizations and Society*, 10(4), 443–456. [https://doi.org/10.1016/0361-3682\(85\)90005-4](https://doi.org/10.1016/0361-3682(85)90005-4)
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124–1131. <https://doi.org/10.1126/science.185.4157.1124>
- Wang, C., & Guan, M. (2023). Can sunlight disperse mistrust? A meta-analysis of the effect of transparency on citizens’ trust in government. *Journal of Public Administration Research and Theory*, 33(3), 453–467. <https://doi.org/10.1093/jopart/muac040>
- Zhang, Y. F. (2024). Too little or too much transparency? Influencing accountability in project management through the practices of using digital technologies. *International Journal of Project Management*, 42(6), 102636. <https://doi.org/10.1016/j.ijproman.2024.102636>

ADOPTION IN MARKETING STRATEGIES: NAVIGATING THE PRESENT AND SHAPING THE FUTURE BUSINESS LANDSCAPE ARTIFICIAL INTELLIGENCE (AI)

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ABSTRACT

This paper examines the transformative impact of Artificial Intelligence (AI) on marketing, focusing on its role in enhancing customer engagement, decision-making, and operational efficiency. It explores how businesses can leverage AI to deliver personalized experiences, predict market trends, and optimize strategies while addressing challenges such as ethical concerns, data privacy, and technological readiness. This study provides insights to help organizations align AI adoption with strategic goals in an increasingly digital economy. Using a narrative review methodology approach, this paper synthesizes insights from academic research, industry reports, and case studies to identify key trends, challenges, and opportunities in AI-driven marketing. Findings are structured around crucial themes such as technological infrastructure, ethics, and organizational readiness, offering a comprehensive framework for AI implementation.

This review reveals that AI enhances marketing through personalization, predictive analytics, and efficiency improvements. However, challenges such as data privacy concerns, ethical dilemmas, and infrastructure readiness remain significant. The study highlights the need for businesses to cultivate an AI-ready culture, upskill employees, and establish ethical guidelines to mitigate risks. By addressing these barriers, organizations can leverage AI to anticipate customer needs, streamline operations, and enhance decision-making, ultimately securing a competitive advantage. This paper contributes to the literature by bridging theoretical and practical perspectives on AI in marketing. It synthesizes diverse sources to offer actionable recommendations, addressing both ethical and organizational considerations. By exploring AI's role in driving innovation and improving customer experiences, this study provides valuable insights into how businesses can harness AI for long-term competitive success.

Keywords: Artificial Intelligence (AI) Marketing Strategies Predictive Analytics Organization Efficiency Process Innovation Customer Experience.

1. Introduction: AI's transformative role in marketing.

1.1 The Rise of AI in marketing

The marketing landscape is experiencing an unprecedented shift, driven by the transformative capabilities of Artificial Intelligence (AI). AI is no longer just a futuristic concept but has become a fundamental tool reshaping marketing strategies and business practices (Chintalapati& Pandey, 2022). The integration of AI into marketing is part of a broader

technological evolution that businesses must embrace to remain competitive in an increasingly digital marketplace (Chen et al., 2022). By leveraging AI technologies, companies can personalize customer experiences, improve decision-making, and streamline operations, all of which are crucial for success in today's dynamic business environment. AI's ability to analyze vast amounts of data in real time and predict consumer behavior has provided marketers with powerful tools to enhance engagement and optimize strategies. Through predictive analytics, machine learning, and natural language processing, AI helps businesses create targeted campaigns, improve customer segmentation, and develop innovative marketing tactics (Pillai & Sivathanu, 2020). As AI technologies continue to advance, their influence on marketing grows, opening up new possibilities for companies to interact with their customers in ways previously thought impossible. However, despite these advancements, AI adoption in marketing is not without its challenges, particularly concerning ethical issues and data privacy concerns, which need to be carefully managed.

1.2. The challenges of AI adoption

While AI presents immense opportunities for marketers, its adoption and integration into business practices are influenced by several factors, as stated in Table 1 below. One of the key considerations for organizations is their capacity to adopt and scale AI technologies. Perceptions regarding the security and privacy of customer data, as well as the complexities of integrating AI systems into existing infrastructure, often present significant barriers (Pillai & Sivathanu, 2020). For businesses to successfully implement AI, they must not only invest in the necessary technological tools but also foster an organizational culture that supports innovation and continuous learning. These challenges become more pronounced when considering the varying levels of AI readiness across industries and the complex nature of AI solutions that may require significant retraining of staff and restructuring of marketing processes (Kaggwa et al., 2023).

Table 1. Key challenges and strategies for successful AI adoption in marketing.

Challenge	Description	Impact on Businesses	Solution Strategies
Technological Readiness (Kaggwa et al., 2023)	Businesses face difficulties in integrating AI with legacy systems and ensuring proper infrastructure for large-scale AI implementation.	Insufficient infrastructure can hinder AI's ability to deliver results, causing delays, inefficiencies, and loss of competitive advantage.	Invest in scalable cloud infrastructure, upgrade legacy systems, and ensure high-quality data processing capabilities.
Data Privacy and Security (Ho et al., 2022)	Concerns about safeguarding sensitive customer data in AI applications.	Data breaches or misuse can lead to regulatory fines, loss of consumer trust, and reputational damage.	Develop robust data governance frameworks, comply with regulations like GDPR, and use encrypted storage solutions.
Ethical Considerations (Kumar et al., 2023)	Ethical issues such as algorithmic bias, lack of transparency, and	Ethical mishandling can alienate customers, lead to lawsuits, and tarnish the organization's reputation.	Establish AI ethics committees, adopt responsible AI frameworks, and

Challenge	Description	Impact on Businesses	Solution Strategies
	unintended consequences of AI-driven decisions.		enhance transparency in AI decisions.
Organizational Culture and Readiness (Chowdhury et al., 2023)	Companies need to foster a culture that embraces innovation, with employee training and leadership aligned to AI goals.	Resistance to change, fear of job displacement, and lack of AI skills can slow down the adoption and integration of AI into business processes.	Upskill employees, cultivate an AI-ready culture through leadership, and provide continuous learning opportunities.

Furthermore, ethical concerns surrounding AI in marketing are substantial. Issues such as algorithmic bias, data privacy, and transparency in AI decision-making continue to dominate discussions in the field (Ho et al., 2022).

As businesses collect vast amounts of consumer data to fuel AI-driven marketing strategies, ensuring that this data is handled responsibly and ethically becomes increasingly critical. These concerns have spurred regulatory actions aimed at protecting consumer rights and have prompted businesses to adopt more transparent and accountable AI practices. While AI's potential to revolutionize marketing is undeniable, addressing these ethical and regulatory challenges is crucial for its successful and sustainable adoption (Kumar et al., 2023).

1.3. The Role of AI in shaping business strategies

AI is more than just a tool for enhancing marketing efforts; it has become a strategic driver of business transformation. As organizations seek to differentiate themselves in the market, AI provides a competitive advantage by enabling more efficient decision-making, better customer targeting, and enhanced customer experience management. AI's ability to process large datasets and provide actionable insights is revolutionizing how businesses understand consumer behavior and make strategic decisions (Ghani et al., 2022). By predicting market trends and customer preferences, AI helps businesses optimize their strategies in real time, improving operational efficiency and increasing their ability to anticipate customer needs. The strategic value of AI extends beyond customer-facing functions and impacts various aspects of business operations (Keegan et al., 2024). As businesses increasingly integrate AI into their operations, it becomes essential to understand not only the technical capabilities of these systems but also their implications for organizational culture and structure. For companies to realize the full potential of AI, they must cultivate an AI-ready culture that prioritizes innovation, upskilling employees, and adopting a mindset of continuous improvement (Kaggwa et al., 2023). As AI continues to shape the future of marketing, businesses must embrace its transformative power while navigating the complexities it brings.

2. Purpose of the review

This review aims to offer a comprehensive understanding of the complex and evolving landscape of AI-driven marketing. By focusing on both the technical and strategic aspects of AI adoption, the paper provides a detailed analysis of how organizations can successfully integrate AI into their marketing practices while addressing the challenges and opportunities that accompany such integration.

2.1. Scope of the Review

The primary objective of this review is to explore the multidimensional aspects of AI in marketing. It focuses on three key themes that serve as the foundation for understanding AI's role in marketing: technological infrastructure, ethical challenges, and organizational

readiness. These themes guide discussion and create a structured framework for analyzing the various elements that influence AI adoption and implementation in marketing. The first theme, technological infrastructure, explores the critical requirements for effectively implementing AI in marketing strategies. This includes the hardware, software, and data infrastructure necessary to support AI applications. Cloud computing, data storage solutions, and AI system integration are discussed as vital components for businesses to overcome integration challenges and ensure the optimal functioning of AI technologies within existing marketing processes (Penikalapati et al., 2023). The second theme, ethical challenges, addresses the growing concerns surrounding data privacy, algorithmic biases, and the transparency of AI decision-making. As AI becomes a more integral part of marketing, businesses must ensure that their use of AI aligns with ethical standards and fosters consumer trust (Du & Xie, 2021). Lastly, organizational readiness focuses on how businesses can cultivate an AI-ready culture. This involves investing in employee training, leadership, and strategic planning to ensure that AI adoption aligns with the company's broader goals. Organizational readiness is critical to ensure that AI technologies are successfully integrated across departments and that employees are equipped to work with AI systems effectively (Zada et al., 2023).

2.2. Research gaps and opportunities

While there is a growing body of research on AI in marketing, several key areas remain underexplored, particularly regarding how businesses can operationalize AI. This review identifies several research gaps in the current literature, particularly in understanding the best practices for integrating AI into marketing workflows, decision-making structures, and customer relationship management. Although the benefits of AI in marketing, such as increased efficiency and personalization, are widely recognized, further research is needed to explore how businesses can successfully operationalize AI to enhance their marketing strategies (Ledro et al., 2023). In addition, the ethical implications of AI remain a topic of concern, with questions regarding bias, transparency, and consumer trust continuing to emerge in the discourse surrounding AI adoption. While previous studies have touched upon the ethical challenges of AI, more research is needed to develop clear frameworks and guidelines that businesses can follow to ensure ethical AI deployment (Chintalapati & Pandey, 2022). Research into how different industries approach AI adoption and the specific challenges they face in doing so will also be important to understand in advancing AI-driven marketing practices. The findings from this review not only contribute to the existing literature on AI in marketing but also offer valuable insights into future research. The review identifies several promising areas for future exploration, including the integration of emerging AI technologies such as machine learning, natural language processing, and predictive analytics into marketing strategies (Akteer et al., 2023). As AI continues to evolve, businesses will need to stay informed about the latest advancements and adapt their marketing practices accordingly.

3. The evolution of AI in marketing

In their research, Abdullah et al. (2023) pointed out that the conceptual foundation of AI marketing is based on the suggestions and application of predictive modeling in related decisions. This also emphasizes the need to use AI, whereby data can be processed, and high-target marketing can be accomplished. Marketing AI assists in the identification of the consumer's preferences and behaviors, thus enhancing the probability of the various marketing strategies yielding positive results (Ameen et al., 2021). Recommendations that are obtained from customer data increase customer satisfaction and may also increase the rate of sales (Purnomo, 2023). Another essential issue is the proper ethical concerns of marketing and AI. Frank et al. (2023) opine that marketers should get an elaborate, holistic understanding of the

inputs to Artificial intelligence and their roles. That is why it is critical to avoid such absolute decisions as discrimination or violation of the rights to personal life. From the ethical point of view regarding AI in marketing, there is more focus on the aspect of responsibility; further, the specifications of AI tools that need to be employed effectively shall address facts about the fairness and privacy equation that respects consumer secrecy (Du & Xie, 2021). Nevertheless, numerous questions exist about the outcome of the company's AI proposals to purchasers and how they are implemented for consumers. Relevant issues and constraints by implementing AI in the context of marketing and the nature of how AI suggests and recommends would shift the consumers' behaviors and perceptions (Puntoni et al., 2021).

3.1. Current state of AI in marketing

Today's trends in Artificial Intelligence (AI) in marketing symbolize a new era in the marketing discipline, and it will surprise many to know that people are already calling it the fourth industrial revolution (see Table 2 below). This revolution constitutes a significant leap in paradigm and approach toward marketing operations (Bahoo et al., 2023). AI is a critical factor in the individualization of advertising and marketing automation, but has also expanded into such sectors as neuromarketing, viral marketing, voice interface, and conversion rate optimization (Casado-Aranda et al., 2023). AI's influence on marketing is profound and far-reaching, altering the nascent structure of the digital marketing environment in several vital ways. Within the scope of personalization, it eliminates the interaction level with customers that was impossible before. By utilizing machine learning with the help of algorithms and deep learning frameworks, marketers can create relevant marketing messages and appeals that are close to the customer's preferences and actions (Gupta et al., 2020). Personalization has gone a long way in enhancing customer interaction and satisfaction. AI continues transforming how it is used in viral marketing applications. Thus, AI algorithms can predict the content's virality and help marketers create the likely shared campaigns (Huh et al., 2023). This capability is invaluable in today's world, where social media has taken the marketing environment by storm, and often, the fate of a campaign can be sealed by executing a viral component. Another emerging field in AI applications is voice recognition technology, and the market is steadily growing. With the advancement in voice-assisted devices, marketers are now looking to capture the market through voice-activated interfaces (Xiao & Tan, 2024). This technology is revolutionizing how customers look for information and interact with brands. In the case of conversion optimization, AI is essential in understanding a customer's data and behavior when converting a lead into a customer (Soni, 2023). This includes website usability, individual customer interactions, and the positioning of the marketing communications. All these areas are within the industry, and intervention efficiency has been raised considerably regarding service quality, customer satisfaction, and employee-related results (Said, 2023). Numerous implementations of AI in this sector include digital recommendations for a better customer experience, using chatbots to answer customers' questions, and using big data to forecast clients' preferences and needs (Khatri, 2023). AI in marketing is not only restricted to the mentioned applications; it is a dynamic field where new usages and more advanced developments occur periodically. This shift in the mode of AI in real-life marketing makes it revolutionary; hence, AI is the key to today's marketing strategies (Kamal & Himel, 2023).

Table 2. Emerging trends and challenges in AI-Driven marketing.

AI Focus Area	Key Insights & Applications	Emerging Trends	Challenges & Solutions
Personalization (Gupta et al., 2020)	AI enhances marketing by tailoring messages and experiences to individual preferences.	Advancements in machine learning and deep learning enable hyper-personalization at scale.	Balancing personalization with privacy concerns. Solution: Transparent data use policies.
Viral Marketing & Social Media (Huh et al., 2023)	AI predicts viral content trends, optimizing campaigns for social media sharing.	Use of AI to predict and create viral content, capitalizing on trends and consumer behavior.	Ensuring content relevance and avoiding over-saturation. Solution: Tailored AI strategies.
Voice Recognition Technology (Xiao & Tan, 2024)	AI powers voice-activated devices, enhancing customer interactions through voice interfaces.	Rapid growth in the use of voice assistants for brand engagement, e.g., in e-commerce and customer service.	Handling varying user intents and improving AI responses. Solution: Ongoing training of models.
Conversion Rate Optimization (Soni, 2023)	AI analyzes consumer behavior to improve lead-to-customer conversion on websites and apps.	Integration of AI with customer journey analytics to maximize conversions through real-time decision-making.	Ensuring AI's understanding of complex consumer actions. Solution: Advanced predictive modeling.

4. Factors influencing adoption and implementation

AI adoption in marketing is influenced by a variety of factors, both internal and external, which organizations must carefully navigate to ensure successful integration. One of the key influences is perceived benefits, where organizations view AI as a powerful tool to enhance efficiency, personalize customer experiences, and drive data-driven decision-making (Pillai & Sivathanu, 2020). For instance, AI can improve targeting precision in marketing campaigns by analyzing customer behavior and preferences, thereby increasing sales conversion rates (Puntoni et al., 2021). However, perceived risks often complicate the decision to adopt AI, especially concerning data privacy and security. Many organizations are hesitant due to the fear of exposing sensitive customer data to potential breaches, which could undermine consumer trust (Ledro et al., 2023). Another factor is organizational readiness, which includes the internal culture and resources available to facilitate AI implementation. A company's technological readiness is crucial, whether it has the necessary infrastructure, like high-quality data storage and processing tools, to handle AI workloads effectively (Khatri, 2023). Furthermore, external factors, such as market competition and regulatory pressures, also play a significant role. Government regulations surrounding AI use push organizations to be more cautious in their approach to AI adoption (Rupp & von Grafenstein, 2024). External market trends, particularly rising customer expectations for personalized services, further motivate businesses to explore AI-driven marketing solutions (Ghani et al., 2022). These factors, when understood and managed well, can pave the way for a smoother adoption process.

4.1. Technological infrastructure

The technological infrastructure required to implement AI in marketing is multifaceted, comprising both hardware and software components that must work cohesively. For practical AI applications, organizations must invest in robust data infrastructure. AI relies heavily on vast quantities of clean, structured data, and this data must be easily accessible for AI models to function optimally (Penikalapati et al., 2023). This is where cloud computing and advanced data management systems come into action. Cloud storage services, for example, offer the scalability needed to store the large volumes of data processed by AI algorithms (Ionescu & Diaconita, 2023). In addition, the computing power required for AI tasks is significant. AI models, particularly those involving deep learning, need high-performing Graphics Processing Units (GPUs) for parallel processing, which accelerates the model training process and allows real-time predictions (Ajani et al., 2024). Companies must also consider data security in their infrastructure, as sensitive customer information is a core component of AI-driven marketing strategies. Therefore, businesses must invest in secure, elastic storage solutions capable of processing vast amounts of data while maintaining integrity and privacy (Himeur et al., 2024). Moreover, the integration of AI tools with existing systems remains a significant challenge for organizations, especially when legacy systems are incompatible with modern AI technologies. This incompatibility can lead to data silos, where AI applications cannot efficiently share data with other business tools, impeding the full potential of AI in marketing (Merhi, 2023). Overcoming these integration barriers requires a well-thought-out strategy and significant investment in both new technologies and employee training to bridge the gap between old and new systems.

4.1.1. Hardware and software requirements

The critical dependency for practical AI applications in marketing is the technological platform. There must be a foundation with a high computational capacity to perform AI algorithms since these algorithms are generally tedious and time-consuming because of the large amounts of information the algorithms deal with (Himeur et al., 2024). To support these operations, businesses must invest in high-value equipment and hardware. Some of the significant components are high-performing GPUs, which are primary to machine learning and deep learning tasks because of their efficiency in parallel processing (Ajani et al., 2024). Besides the above, a dependable storage medium is also a crucial attribute that must be incorporated in a modern hospital. AI solutions should be safe, elastic, and able to process vast amounts of data released and analyzed by artificial intelligence. Parallel to the further development of AI applications in marketing, faster data storage is also called for cloud storage services and high-speed databases (Ionescu & Diaconita, 2023). In the software propositions, the critical requirement is to make specialized AI and machine learning platforms available. These are the foundations on which all AI-driven marketing techniques depend since they facilitate the processing, analyzing, and interpreting of vast data collections. It is required that they should be flexible enough to accommodate various models of machine learning and different algorithms, as well as the potential to connect to a range of sources such as customer database tools for tracking online behavior and market research data (Aljohani, 2023).

4.1.2. Integration challenges

Integrating AI technology into the current marketing systems poses challenges mainly because it requires significantly modifying the current systems. The first concerns the integration conflicts between the newly implemented AI applications and the existing systems (Ledro et al., 2023). Most organizational structures still use systems that are incompatible with current AI solutions. This gap can culminate in significant compatibility concerns to implement new

systems, and it always presents challenges of overcoming the divergence of these two types of systems (Merhi, 2023). The excess of these sources can lead to another problem, that is, the formation of data silos. Another drawback emerging due to new AI tools is that, most of the time, such tools tend to work independently, not being connected to other databases and programs (Lee and Yoon, 2021). This can hinder the free flow of information and the efficiency of AI applications in marketing. Thus, a more comprehensive approach to integrating systems is required to avoid such situations. AI integration in marketing systems implies using strategies, one of which is the attainment of stakeholder support. This entails showing that such technologies are worth the investment and that AI offers a return on investment.

4.2. Organizational culture

An organization's culture plays a critical role in the successful implementation of AI, especially in marketing contexts where adoption is not merely a technological shift but a transformation in the way marketing teams operate. For AI to be successfully integrated, businesses must foster a culture that values innovation and learning. Employees need to feel confident that AI is a tool that enhances, rather than replaces, their work (Zada et al., 2023). This shift requires leadership to promote an AI-ready culture actively, emphasizing continuous training and skill development (Chowdhury et al., 2023). Effective change management is also vital. Transitioning to AI-driven marketing strategies is often met with resistance due to concerns about job security or the complexity of new technologies (Tominc et al., 2024). Leaders must clearly communicate the long-term benefits of AI adoption, such as improved efficiency and the opportunity for employees to work on more strategic tasks rather than repetitive ones (Pappas et al., 2023). Furthermore, employee training is key to ensuring that staff at all levels are equipped with the necessary skills to work with AI technologies. This training should be tailored to different levels of expertise within the organization, from AI literacy for all employees to advanced training for those directly involved in managing AI systems (Ray, 2023). By investing in skill development and creating a culture that embraces change, organizations can foster an environment where AI is seen as an asset, not a threat, driving both innovation and improved customer engagement strategies.

4.2.1. Change management

Going AI in marketing is not just a technological upgrade but a change in organizational culture (Allioui&Mourdi, 2023). This shift, therefore, requires strategic change management that plays a crucial role in managing change for the organizations to transition to AI marketing. In this approach, additional emphasis is placed on training and involving employees to explain and ensure they understand the organizational AI implementation's potential advantages and risks (Chan, 2023). Leadership is considered a critical factor in this process. AI stakeholders must be able to convey AI's usefulness to organizations, including their potential to provide organizations with more efficiency/precision and improve human potential (Pappas et al., 2023). This includes demystifications of AI, for example, debunking myths like the notion of jobs being replaced by AI by effectively asserting that such tools reinforce existing human competencies (Haim, 2023). Organizational leaders must change the learning culture and perpetuate risk-taking and thinking about new technologies (Zada et al., 2023). Such a culture of constant training and change readiness is paramount to assuage and effectively unlock multiple opportunities in AI-infused marketing.

4.2.2. Employee training and skill development

The primary factor crucial for AI to integrate into marketing strategies is a significant investment in the company's employees and their training and professional growth (Chowdhury et al., 2023). The personnel have to be prepared in terms of technical skills to manage the AI

tool and advanced and strategic skills to analyze the data interpreted from the AI and implement it into its marketing strategies (Miklosik et al., 2019). Training programs should thus encompass all the different aspects of a business and should be based on the different organizational skill levels. As of this writing, vital AI-related activities for all employees include AI literacy, which is the ability to comprehend the principles and possible applications of AI in occupational scenarios (Ray, 2023). Employee training should be given to the staff directly involved in AI activities; this should include data analysis, the application of machine learning models, and ethical considerations concerning the application of AI. Furthermore, constant learning or updating of skills is highly recommended, given that the field of AI has been dynamic throughout the years.

4.3. Data security and privacy concerns

The integration of AI in marketing involves numerous benefits, though the issue of data safety and security constitutes a set of complications fit for a separate discussion. In dealing with such challenges, organizations must adopt measures such as enhancing the level of security, ensuring that the protection of data meets set regulations, being transparent about the use of AI, being ethical in the use of AI, and adopting appropriate levels of investment (Ledro et al., 2023). Awareness of these concerns is essential in applying AI in marketing and creating and sustaining consumer confidence in today's digitized society. Marketing professionals and AI manufacturers have realized many benefits of incorporating AI in their advertising approaches, but there is a significant issue relating to information protection (Allioui&Mourdi, 2023). Marketing applications of AI in today's world are primarily engaged with the understanding and analysis of large volumes of individually sensitive data. These are the customer's information, such as their age, purchasing behavior, activities on the internet, and personal preferences, which are significant in developing unique marketing strategies (Kamal &Himel, 2023). Nevertheless, managing such information exposes the core of the AI system, including efficient algorithms and designs, to cyber risks and data leak hazards, which may significantly affect organizations and customers.

4.3.1. Expanded concerns in data security

As such, data security in AI-driven marketing encompasses its protection from unauthorized access and its firm's data integrity and accessibility (Ni & Li, 2024). The nature of artificial intelligence systems and the importance of large data sets call for secure environments. Managers must ensure that their organization implements the most advanced security solutions, from encryption solutions to intrusion detection tools and firewalls. These measures must be kept changing and experimenting to respond to new cyber threats (Verma et al., 2024). Furthermore, the growing complexity of the AI algorithms used in marketing enhances the need to understand the consequences of data safety. For example, machine learning models may be susceptible to data poisoning and model inversion attacks, whereby the data or the model is manipulated to introduce faults. Safeguarding AI models is just as important as protecting the data that serves them (Habbal et al., 2024).

4.3.2. Privacy concerns and regulatory compliance

The privacy issue can easily be linked to AI's marketing application data security. As AI systems obtain rich customer data and can analyze it, there is a higher probability that it will be used without respect for the client's individualism if mishandled (Williamson &Prybutok, 2024). The attempts to meet the global requirements for personal data protection, including the GDPR in the EU, often become complex but essential. These regulations set out requirements on how any given personal data should be acquired, processed, and managed, and they also carry severe penalties in the event of non-compliance (Rupp & von Grafenstein, 2024). To

ensure that the regulations are being met, there is a necessity for creating and implementing strict data governance policies in organizations. This includes asking for explicit and express authorization from a person before using their data, using as little data as possible, and providing explicatory information indicating the particular usage of this data (Karkošková, 2023).

4.3.3. Transparency and ethical use of AI

There must be transparency in marketing automation through AI algorithms. Consumers are willing to know their data entitlement and are sensitive about how it is processed (Liu et al., 2023). Consumers need to understand if and how AI is being applied in marketing communication, how algorithms acting on their behalf work, and the choices they make based on their analysis of consumers (Allioui&Mourdi, 2023). There are also questions of trivia related to ethical dilemmas, such as bias and fairness in the AI model. One of the most critical considerations when designing and promoting AI marketing tools is to ensure that the tools do not have built-in biases and do not limit their service provision to particular categories of customers (Habbal et al., 2024). This necessitates continually monitoring and assessing AI algorithms for equality and prejudice and adopting ethical AI policies.

5. Future directions and research opportunities

This paper establishes trends and proposes research directions since AI is gradually expanding. It also aims to indicate which areas of the ever-evolving relationship between AI and marketing should be explored further and what challenges should be addressed for future studies.

5.1. Emerging trends in AI and marketing

Artificial intelligence in personalization offers a new perception of the extent of marketing techniques, creating marketing appeals that are relevant and specific to the customers (Deryl et al., 2023). Though it ultimately results in customers having more influence over the product and possibly higher conversion rates, the implementation of this strategy sparks immense ethical dilemmas (Wang et al., 2023). The use of personal data and when the information should be processed for marketing must be addressed in terms of privacy. In addition, if the markets get oversaturated with these personalized recommendations, they overburden or confine customers, thus making marketing campaign utilization ineffective (Reviglio, 2020). Voice conversational AI redefines the conversation between companies and customers with real-time engagement. This moves the companies away from old-fashioned customer communication towards a more effective and engaging approach (Bergner et al., 2023). Still, it becomes more work for marketers to control these artificial intelligence systems to deliver relevant and valuable customer information, retaining the brand's tone and values. Failure to recognize user intent or vague replies may prove irritating and harm the brand image (Ahn et al., 2024). Moreover, AI is a powerful tool in predictive analytics that makes it possible to forecast consumer behavior and market trends to transform the marketing strategy (Godfrey & Price, 2023). It enables proactive decisions regarding marketing strategies to be made with better allocation of resources and improvement of campaign outcomes. The problem lies in the predictive models' reliability and the bias trend (Aker et al., 2023). The decision-making process may be based on unreliable information, which may affect the implementation of strategies for expanding cooperation and, conversely, may push customers away from a brand and harm its reputation.

5.2. Future developments in AI marketing

Looking ahead, the integration of AI in marketing will continue to evolve with the advancement of emerging technologies such as 5G, blockchain, and quantum computing. The enhanced capabilities of 5G will allow AI to process large volumes of data instantaneously, enabling hyper-personalized, real-time customer experiences (Kamal &Himel, 2023). As AI integrates with blockchain, businesses will gain access to more secure and transparent customer data management, addressing growing concerns about data privacy and security in AI applications. In addition, quantum computing holds the potential to accelerate AI's decision-making capabilities, making marketing campaigns more adaptive and efficient (Penikalapati et al., 2023). Alongside these technological advancements, AI will also undergo significant ethical and regulatory transformations. The increasing demand for transparent, fair, and ethical AI will drive the development of AI governance frameworks that prioritize consumer privacy and the mitigation of algorithmic biases. This evolving regulatory environment shall compel organizations to ensure that their AI tools meet stringent ethical standards while safeguarding sensitive customer data (Chintalapati& Pandey, 2022).

Moreover, AI's future role in sustainable marketing will become more prominent as businesses and consumers increasingly prioritize eco-conscious practices. AI will support organizations in optimizing supply chains, reducing waste, and creating environmentally-friendly marketing strategies, offering data-driven insights into consumer preferences for sustainable products (Jankovic &Curovic, 2023). AI-powered tools will empower companies to customize their marketing efforts to meet the growing demand for sustainability, fostering stronger engagement with environmentally conscious consumers. In addition, AI will enable the creation of autonomous marketing systems, capable of independently managing tasks such as pricing, content creation, customer segmentation, and engagement. These self-sustaining AI-driven systems will increase operational efficiency, reduce human error, and deliver highly personalized experiences at scale, revolutionizing the way businesses approach marketing (Ledro et al., 2023).

5.3. Unexplored areas and future Research opportunities

According to Hicham et al. (2023), enhanced emotion and interpersonal communication in both Artificial Intelligence and Emotional Intelligence are among potential possibilities. On the other hand, this brings to light some serious ethical questions about manipulating emotions and the potential copyright of feelings and emotional data. While using AI in marketing, businesses need to exercise much caution so that the improved emotional intelligence will not compromise on ethics to give a better experience to customers (Guler et al., 2024). According to Hosseini and Mohammad (2023), AI marketing is mandatory in the modern interconnected market, but it is not without a series of concerns. It is important to note that many things are culturally sensitive in all countries. It is thus essential to be careful not to offend that culture intentionally. At the same time, due to the originality of cultural data depictions, an AI system must be trained with data from different cultures, which is a significant challenge for marketers seeking to popularize their products across borders (Baur & Iles, 2023). Sustainable AI marketing is consistent with the general societal trend whereby individuals focus on environmentally friendly practices. A key issue arises: how do marketers help create sustainable products/services and utilize AI for sustainable working processes in the systems (Jankovic &Curovic, 2023). The study of the long-term impact of AI on consumer behavior is crucial for understanding how AI influences decision-making over time (Bernatavičienė, 2023). Marketers must consider the ethical implications of potentially shaping consumer behavior through AI-driven marketing tactics. The risk of reducing consumer autonomy could lead to a backlash against AI-driven marketing practices (Hermann, 2022).

5.4. Theoretical implications and contribution

This review paper synthesizes existing research on AI in marketing and offers several key theoretical implications and contributions. First, by exploring the connections between AI adoption and organizational readiness, this paper contributes to the expanding body of literature on technological adoption by highlighting how organizational culture, infrastructure, and human resources significantly impact the integration of AI in marketing practices, as asserted by Khanfar et al. (2024). While traditional Technology Acceptance Models (TAM) primarily focus on individual adoption (Davis, 1989), the findings suggest that organizational-level factors play an equally crucial role (Errida&Lotfi, 2021). Second, this review challenges the traditional views of Innovation Diffusion Theory (IDT), which typically views innovation adoption as a linear process (Rogers, 2003). By examining the ethical and regulatory complexities surrounding AI in marketing, this paper presents a better view of AI diffusion, specifically, concerns about algorithmic bias and data privacy significantly slow down the adoption process (Alhitmi et al., 2024). This insight adds a new dimension, suggesting that external regulatory forces may be as influential as internal innovation attributes (Park et al., 2025). With the concept of an AI-ready culture, which has not been sufficiently integrated into past theoretical models of marketing adoption, this paper reveals that businesses that cultivate an innovative, AI-friendly environment are better positioned to leverage the full potential of AI technologies, thus offering a new theoretical pathway for future studies (Cadden et al., 2022).

While this paper sheds light on various theoretical dimensions of AI adoption in marketing, several theoretical gaps remain. For instance, future research could delve deeper into how ethical concerns, such as data privacy, are integrated into existing technology adoption models (Du &Xie, 2021). Moreover, there is a need for more theoretical work that incorporates the role of leadership and employee skills in driving AI adoption, areas that remain underexplored in current frameworks (Tehrani et al., 2024).

5.5. Recommendations for future studies

The recommendation for interdisciplinary research highlights the complexity of AI in marketing, necessitating a blend of expertise from multiple fields. Future studies should not only focus on the technical aspects of AI but also delve into the psychological impact on consumers, ethical considerations, and the socio-economic implications of AI-driven marketing strategies (Aker et al., 2023). The challenge in interdisciplinary research lies in integrating diverse methodologies and viewpoints (Rane et al., 2023). Each field has assumptions and approaches, and reconciling them to develop cohesive and comprehensive AI marketing strategies can be daunting. Furthermore, there is a risk that the focus on technical efficiency might overshadow ethical and psychological considerations (Giebelhausen & Poehlman, 2024).

6. Conclusion

Integrating Artificial Intelligence (AI) in marketing is a critical strategy for businesses pursuing competitiveness and relevance in the dynamic digital era. This comprehensive review has shed light on AI's transformative influence in marketing, marking a shift from traditional methods to advanced, data-driven strategies. AI has revolutionized customer interactions by enabling marketers to gain deeper insights into consumer behavior, facilitating more personalized and effective marketing strategies (Kamal &Himel, 2023). The enhanced efficiency and AI innovation reshape marketing processes, with AI proving to be a technological evolution and a strategic imperative. However, the journey towards AI integration in marketing is accompanied by challenges, including ethical concerns and data security, which concurrently

offer opportunities for strategic growth and innovation. In addition, adopting AI necessitates significant changes in organizational structures and cultures, highlighting the need for an AI-ready culture and continual learning (Tehrani et al., 2024). AI's integration has also synergistically merged with established marketing theories, enhancing traditional models and practices. Furthermore, creating an organizational culture that embraces AI is vital, fostering a mindset of innovation, experimentation, and continuous learning. Staying current with the rapid evolution of AI technologies requires marketers to be informed about the latest developments and prepared to adapt their strategies accordingly (Rosário& Dias, 2023).

This review has achieved its objectives, as outlined in the previous section. Firstly, by examining the transformative role of Artificial Intelligence (AI) in marketing strategies, this paper demonstrates how AI enhances customer engagement, decision-making, and operational efficiency. The findings validate the significant potential of AI in personalizing customer experience and optimizing marketing strategies, aligning with the first objective of this review. Second, the review identifies several critical challenges organizations face when adopting AI in marketing, particularly in areas such as data privacy, ethical considerations, and infrastructure readiness. These findings directly address the second objective, emphasizing that overcoming these barriers is crucial for AI's successful integration into marketing practices. Lastly, this paper addresses the third objective by providing actionable recommendations for businesses to mitigate these challenges. By fostering an AI-ready culture, prioritizing employee upskilling, and developing ethical frameworks, organizations can navigate the complexities of AI adoption. These insights highlight the importance of organizational readiness and ethical responsibility in ensuring the long-term success of AI-driven marketing strategies. Ultimately, this review contributes to the literature by offering both theoretical perspectives on AI in marketing. It provides a comprehensive framework for organizations to adopt AI strategically while addressing ethical concerns, thereby positioning AI as a tool for sustainable growth and competitive advantage in the digital era.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

- Abdullah et al., 2023, S.I.N.W. Abdullah, P.K. Teng, B.L.J. Heng, K. Subramaniam, J. Yuling, A.M.A. Shoep Effect of marketing mix strategies on the buying behaviour of organic products: Comparison between consumers in Malaysia and China, IOP Conference Series: Earth and Environmental Science, 1165 (1) (2023), pp. 1-15, [10.1088/1755-1315/1165/1/012007](https://doi.org/10.1088/1755-1315/1165/1/012007), [View at publisher Google Scholar](#), Ahn et al., 2024
- J. Ahn, J. Kim, Y. Sung, The role of perceived free will in crises of human-AI interaction: The mediating role of ethical responsibility of AI, International Journal of Advertising, 43 (5) (2024), pp. 847-873, [10.1080/02650487.2023.2299563](https://doi.org/10.1080/02650487.2023.2299563), [View at publisherView in ScopusGoogle Scholar](#), Ajani et al., 2024
- S.N. Ajani, P. Khobragade, M. Dhone, B. Ganguly, N. Shelke, N. Parati
- Advancements in computing: Emerging trends in computational science with next-generation computing. International Journal of Intelligent Systems and Applications in Engineering, 12 (7) (2024), pp. 546-559 <https://ijisae.org/index.php/IJISAE/article/view/4159>
- [View in ScopusGoogle Scholar](#), Akter et al., 2023
- S. Akter, M.A. Hossain, S. Sajib, S. Sultana, M. Rahman, D. Vrontis, G. McCarthy
- A framework for AI-powered service innovation capability: Review and agenda for future research. Technovation, 125 (2023), pp. 1-17, [10.1016/j.technovation.2023.102768](https://doi.org/10.1016/j.technovation.2023.102768)
- [View at publisherGoogleScholarAlhitmi et al., 2024.](#)
- H.K. Alhitmi, A. Mardiah, K.I. Al-Sulaiti, J. Abbas
- Data security and privacy concerns of AI-driven marketing in the context of economics and the business field: an exploration into possible solutions

Cogent Business and Management, 11 (1) (2024), pp. 1-9, [10.1080/23311975.2024.2393743](https://doi.org/10.1080/23311975.2024.2393743)

[View at publisher](#)[Google Scholar](#), [Aljohani, 2023](#)

A. Aljohani, Predictive analytics and machine learning for real-time supply chain risk mitigation and agility. Sustainability, 15 (20) (2023), pp. 1-26, [10.3390/su152015088](https://doi.org/10.3390/su152015088)

[View at publisher](#)[Google Scholar](#), [Allioui and Mourdi, 2023](#)

H. Allioui, Y. Mourdi, Unleashing the potential of AI: Investigating cutting-edge technologies that are transforming businesses. International Journal of Computer Engineering and Data Science, 3 (2) (2023), pp. 2737-8543, <https://ijceds.com/ijceds/article/view/59/25>

[Google Scholar](#),

[Ameen et al., 2021](#)

N. Ameen, A. Tarhini, A. Reppel, A. Anand. Customer experiences in the age of artificial intelligence, Computers in Human Behavior, 114 (2021), [10.1016/j.chb.2020.106548](https://doi.org/10.1016/j.chb.2020.106548)

[View at publisher](#)

[Google Scholar](#)

[Bahoo et al., 2023](#)

S. Bahoo, M. Cucculelli, D. Qamar, Artificial intelligence and corporate innovation: A review and research agenda. Technological Forecasting and Social Change, 188 (2023), pp. 1-32, [10.1016/j.techfore.2022.122264](https://doi.org/10.1016/j.techfore.2022.122264)

[View at publisher](#)[View in Scopus](#)[Google Scholar](#)

[Baur and Iles, 2023](#)

P. Baur, A. Iles, Replacing humans with machines: A historical look at technology politics in California agriculture. Agriculture and Human Values, 40 (1) (2023), pp. 113-140, [10.1007/s10460-022-10341-2](https://doi.org/10.1007/s10460-022-10341-2)

[View at publisher](#)[View in Scopus](#)[Google Scholar](#)

[Bergner et al., 2023](#)

A.S. Bergner, C. Hildebrand, G. Haubl. Machine talk: How verbal embodiment in conversational AI shapes consumer-brand relationships

Journal of Consumer Research, 50 (4) (2023), pp. 742-764, [10.1093/jcr/ucad014](https://doi.org/10.1093/jcr/ucad014)

[View at publisher](#)[View in Scopus](#)[Google Scholar](#)

[Bernatavičienė, 2023](#)

J. Bernatavičienė, 14th conference on DATA ANALYSIS METHODS for software systems

Vilnius University Proceedings, 39 (2023), pp. 1-104, [10.15388/damss.14.2023](https://doi.org/10.15388/damss.14.2023)

[View at publisher](#)[Google Scholar](#)

[Cadden et al., 2022](#)T. Cadden, D. Dennehy, M. Mantymaki, R. Treacy

Understanding the influential and mediating role of cultural enablers of AI integration in to supply chain.

International Journal of Production Research, 60 (14) (2022), pp. 4592-4620, [10.1080/00207543.2021.1946614](https://doi.org/10.1080/00207543.2021.1946614)

[View at publisher](#)[View in Scopus](#)[Google Scholar](#)

[Casado-Aranda et al., 2023](#)

L.A. Casado-Aranda, J. Sánchez-Fernández, E. Bigne, A. Smidts. The application of neuromarketing tools in communication research: A comprehensive review of trends

Psychology and Marketing, 40 (9) (2023), pp. 1737-1756, [10.1002/mar.21832](https://doi.org/10.1002/mar.21832)

[View at publisher](#)[View in Scopus](#)[Google Scholar](#)

[Chan, 2023](#)

C.K.Y. Chan, A comprehensive AI policy education framework for university teaching and learning. International Journal of Educational Technology in Higher Education, 20 (1) (2023), pp. 1-25, [10.1186/s41239-023-00408-3](https://doi.org/10.1186/s41239-023-00408-3)

[View at publisher](#)[View in Scopus](#)[Google Scholar](#)

[Chen et al., 2022](#). L. Chen, M. Jiang, F. Jia, G. Liu

[Gupta et al., 2020](#), S. Gupta, A. Leszkiewicz, V. Kumar, T. Bijmolt, D. Potapov

Digital analytics: Modeling for insights and new methods. Journal of Interactive Marketing, 51 (1) (2020), pp. 26-43, [10.1016/j.intmar.2020.04.003](https://doi.org/10.1016/j.intmar.2020.04.003)

[View PDF](#)[View article](#)[View in Scopus](#)[Google Scholar](#)

[Habbal et al., 2024](#). Habbal, M.K. Ali, M.A. Abuzaraida, Artificial intelligence trust, risk and security management (AI TRiSM): Frameworks, applications, challenges and future research directions. Expert Systems with Applications, 240 (2024), pp. 1-14, [10.1016/j.eswa.2023.122442](https://doi.org/10.1016/j.eswa.2023.122442). [View at publisher](#)[View in Scopus](#)[Google Scholar](#)

[Haim, 2023](#), Haim, The administrative state and artificial intelligence: Toward an internal law of administrative algorithms. SSRN, 1–55 (2023), [10.2139/ssrn.4498470](https://ssrn.com/abstract=4498470)

[View at publisher](#)[Google Scholar](#)

Hee Lee and Yoon, 2021. D. Hee Lee, S.N. Yoon

Application of artificial intelligence-based technologies in the healthcare industry: Opportunities and challenges. *International Journal of Environmental Research and Public Health*, 18 (1) (2021), pp. 1-18, [10.3390/ijerph18010271](#)

[View at publisher](#)[View in Scopus](#)[Google Scholar](#)

Hermann, 2022/ E. Hermann. Leveraging artificial intelligence in marketing for social good—an ethical perspective. *Journal of Business Ethics*, 179 (1) (2022), pp. 43-61, [10.1007/s10551-021-04843-y](#)

[View at publisher](#)

[View in Scopus](#)[Google Scholar](#). Hicham et al., 2023, N. Hicham, H. Nassera, S. Karim

Strategic framework for leveraging artificial intelligence in future marketing decision-making

Journal of Intelligent Management Decision, 2 (3) (2023), pp. 139-150, [10.56578/jimd020304](#). [View at publisher](#)[Google Scholar](#)

Himeur et al., 2024. Y. Himeur, A.N. Sayed, A. Alsalemi, F. Bensaali, A. Amira

Edge AI for internet of energy: Challenges and perspectives. *Internet of Things (Netherlands)*, 25 (2024), pp. 1-41, [10.1016/j.iot.2023.101035](#). [View at publisher](#)[Google Scholar](#)

Ho et al., 2022. L.T. Ho, C. Gan, S. Jin, B. Le, Artificial intelligence and firm performance: Does machine intelligence shield firms from risks? *Journal of Risk and Financial Management*, 15 (7) (2022), pp. 1-20, [10.3390/jrfm15070302](#) [View at publisher](#)[View in Scopus](#)[Google Scholar](#)

Hosseini and Mohammad, 2023. S. Hosseini, R. Mohammad. Emerging trends and innovative methods in global marketing: A review paper. *CRPASE: Transactions of Applied Science*, 9 (2) (2023), pp. 1-9, [10.61186/crpase.9.2.2849](#)

[View PDF](#)[View article](#)[View in Scopus](#)[Google Scholar](#)

Huh et al., 2023J. Huh, M.R. Nelson, C.A. Russell. ChatGPT, AI advertising, and advertising research and education. *Journal of Advertising*, 52 (4) (2023), pp. 477-482, [10.1080/00913367.2023.2227013](#), [View at publisher](#)[View in Scopus](#)[Google Scholar](#)

Ionescu and Diaconita, 2023. S.A. Ionescu, V. Diaconita. Transforming financial decision-making: The interplay of AI, cloud computing and advanced data management technologies *International Journal of Computers, Communications & Control*, 18 (6) (2023), pp. 1-19, [10.15837/ijccc.2023.6.5735](#)

[View at publisher](#)[View in Scopus](#)[Google Scholar](#)

An evaluation of the critical success factors impacting artificial intelligence implementation

International Journal of Information Management, 69 (2023), pp. 1-12, [10.1016/j.ijinfomgt.2022.102545](#). [View at publisher](#)[View in Scopus](#)[Google Scholar](#)

Miklosik et al., 2019

Miklosik, M. Kuchta, N. Evans, S. Zak. Towards the adoption of machine learning-based analytical tools in digital marketing. *IEEE Access*, 7 (2019), pp. 85705-85718, [10.1109/ACCESS.2019.2924425](#). [View at publisher](#), [View in Scopus](#)[Google Scholar](#)

Ni and Li, 2024C. Ni, S.C. Li. Machine learning enabled industrial IoT security: Challenges, trends and solutions. *Journal of Industrial Information Integration*, 38 (2024), pp. 1-13, [10.1016/j.jii.2023.100549](#), [View at publisher](#)[View in Scopus](#)[Google Scholar](#)

Pappas et al., 2023. Pappas, E. Fumagalli, M. Rouziou, W. BolanderMore than machines: The role of the future retail salesperson in enhancing the customer experience. *Journal of Retailing*, 99 (4) (2023), pp. 518-531, [10.1016/j.jretai.2023.10.004](#), [View PDF](#) [View article](#) [View in Scopus](#) [Google Scholar](#)

Park et al., 2025. M. Park, S. Wu, R.J. Funk, Regulation and innovation revisited: How restrictive environments can promote destabilizing new technologies. *Organization Science*, 36 (1) (2025), pp. 240-260, [10.1287/orsc.2022.16770](#), [View at publisher](#)[View in Scopus](#)[Google Scholar](#)

Penikalapati et al., 2023, V.K. Penikalapati, S.K.R. Gowrigari, L. Kumar. Revolutionizing AI through innovative data and ML operations modernization strategies. *International Research Journal of Modernization in Engineering Technology and Science*, 4 (12) (2023), pp. 2141-2150, [10.56726/irjmets32690](#), [Google Scholar](#)

Pillai and Sivathanu, 2020R. Pillai, B. Sivathanu. Adoption of artificial intelligence (AI) for talent acquisition in IT/ITeS organizations. *Benchmarking: An International Journal*[Benchmarking](#), 27 (9) (2020), pp. 2599-2629, [10.1108/BIJ-04-2020-0186](#), [View article](#)[View in Scopus](#) [Google Scholar](#)

- Puntoni et al., 2021, S. Puntoni, R.W. Reczek, M. Giesler, S. Botti, Consumers and artificial intelligence: An experiential perspective. *Journal of Marketing*, 85 (1) (2021), pp. 131-151, [10.1177/0022242920953847](https://doi.org/10.1177/0022242920953847), [View in ScopusGoogle Scholar](#)
- Purnomo, 2023, Y.J. Purnomo, Digital marketing strategy to increase sales conversion on E-commerce platforms. *Journal of Contemporary Administration and Management*, 1 (2) (2023), pp. 54-62, [10.61100/adman.v1i2.23](https://doi.org/10.61100/adman.v1i2.23), [Google Scholar](#)
- Rane et al., 2023, N. Rane, S. Choudhary, J. Rane. Leading-edge technologies for architectural design: A comprehensive review. *SSRN Electronic Journal* (2023), pp. 1-37, [10.2139/ssrn.4637891](https://doi.org/10.2139/ssrn.4637891), [Google Scholar](#)
- Ray, 2023, P.P. Ray. ChatGPT: A comprehensive review on background, applications, key challenges, bias, ethics, limitations and future scope. *Internet of Things and Cyber-Physical Systems*, 3 (2023), pp. 121-154, [10.1016/j.iotcps.2023.04.003](https://doi.org/10.1016/j.iotcps.2023.04.003), [View PDFViewarticleView in ScopusGoogle Scholar](#).
- Reviglio, 2020, U. Reviglio. Towards a right not to be deceived? An interdisciplinary analysis of media personalization in the light of the GDPR. *IFIP Advances in Information and Communication Technology*, 573 AICT (2020), pp. 47-59, [10.1007/978-3-030-39634-3_5](https://doi.org/10.1007/978-3-030-39634-3_5)
- Rogers, 2003E.M. Rogers, *Diffusion of innovations*. (5th ed.), The Free Press (2003)
- [Google Scholar](#), Artificial intelligence adoption in business-to-business marketing: Toward a conceptual framework. *Journal of Business and Industrial Marketing*, 37 (5) (2022), pp. 1025-1044, [10.1108/JBIM-09-2020-0448](https://doi.org/10.1108/JBIM-09-2020-0448), [View at publisherView in ScopusGoogle Scholar](#)
- Chintalapati and Pandey, 2022, S. Chintalapati, S.K. Pandey. Artificial intelligence in marketing: A systematic literature review. *International Journal of Market Research*, 64 (1) (2022), pp. 38-68, [10.1177/14707853211018428](https://doi.org/10.1177/14707853211018428). [View at publisherView in ScopusGoogle Scholar](#)
- Chowdhury et al., 2023, S. Chowdhury, P. Dey, S. Joel-Edgar, S. Bhattacharya, O. Rodriguez-Espindola, A. Abadie, L. Truong. Unlocking the value of artificial intelligence in human resource management through an AI capability framework. *Human Resource Management Review*, 33 (1) (2023), pp. 1-21, [10.1016/j.hrmr.2022.100899](https://doi.org/10.1016/j.hrmr.2022.100899), [View at publisherGoogle Scholar](#).
- Davis, 1989, F.D. Davis, Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13 (3) (1989), pp. 319-339, [View in ScopusGoogle Scholar](#)
- Deryl et al., 2023, M.D. Deryl, S. Verma, V. Srivastava, How does AI drive branding? Towards an integrated theoretical framework for AI-driven branding. *International Journal of Information Management Data Insights*, 3 (2) (2023), pp. 1-17, [10.1016/j.jjime.2023.100205](https://doi.org/10.1016/j.jjime.2023.100205)
[View at publisher,Google Scholar](#)
- Du and Xie, 2021, S. Du, C. Xie. Paradoxes of artificial intelligence in consumer markets: Ethical challenges and opportunities. *Journal of Business Research*, 129 (2021), pp. 961-974, [10.1016/j.jbusres.2020.08.024](https://doi.org/10.1016/j.jbusres.2020.08.024), [View PDFViewarticleView in ScopusGoogle Scholar](#)
- Errida and Lotfi, 2021, Errida, B. Lotfi, The determinants of organizational change management success: Literature review and case study. *International Journal of Engineering Business Management*, 13 (2021), pp. 1-15, [10.1177/18479790211016273](https://doi.org/10.1177/18479790211016273), [View at publisherGoogle Scholar](#)
- Frank et al., 2023, D.A. Frank, L.F. Jacobsen, H.A. Søndergaard, T. Otterbring, In companies we trust: Consumer adoption of artificial intelligence services and the role of trust in companies and AI autonomy. *Information Technology and People*, 36 (8) (2023), pp. 155-173, [10.1108/ITP-09-2022-0721](https://doi.org/10.1108/ITP-09-2022-0721), [View at publisher](#), [View in ScopusGoogle Scholar](#)
- Ghani et al., 2022, E.K. Ghani, N. Ariffin, C. Sukmadilaga. Factors influencing artificial intelligence adoption in publicly listed manufacturing companies: A technology, organisation, and environment approach. *International Journal of Applied Economics, Finance and Accounting*, 14 (2) (2022), pp. 108-117, [10.33094/ijaefa.v14i2.667](https://doi.org/10.33094/ijaefa.v14i2.667), [View at publisherView in ScopusGoogle Scholar](#)
- Giebelhausen and Poehlman, 2024, M. Giebelhausen, T.A. Poehlman, Permissibility vs. feasibility: AI in service from a CX perspective. *Journal of Services Marketing*, 38 (1) (2024), pp. 87-102, [10.1108/JSM-06-2023-0210](https://doi.org/10.1108/JSM-06-2023-0210), [View at publisherView in ScopusGoogle Scholar](#)
- Godfrey and Price, 2023, D.M. Godfrey, L.L. Price. How an ethos of repair shapes material sustainability in services. *Journal of the Academy of Marketing Science*, 1 (1) (2023), pp. 1-24, [10.1007/s11747-023-00993-9](https://doi.org/10.1007/s11747-023-00993-9), [View at publisherGoogle Scholar](#)
- Guler et al., 2024, N. Guler, S.N. Kirshner, R. Vidgen, A literature review of artificial intelligence research in business and management using machine learning and ChatGPT. *Data and Information Management*, 8 (3) (2024), pp. 1-25, [10.1016/j.dim.2024.100076](https://doi.org/10.1016/j.dim.2024.100076)

[View at publisher](#), [Google Scholar](#)

Jankovic and Curovic, 2023 S.D. Jankovic, D.M. Curovic, Strategic integration of artificial intelligence for sustainable businesses: Implications for data management and human user engagement in the digital era Sustainability, 15 (21) (2023), pp. 1-19, [10.3390/su152115208](#)

[View at publisher](#)[View in Scopus](#)[Google Scholar](#)

Kaggwa et al., 2023,

Kaggwa, A. Akinoso, S.O. Dawodu, P. UgommaUwaoma, O.J. Akindote, S. OsawaruEloghosa. Entrepreneurial strategies for AI startups: Navigating market and investment challenges

International Journal of Management & Entrepreneurship Research, 5 (12) (2023), pp. 1085-1108, [10.51594/ijmer.v5i12.662](#), [View at publisher](#)[Google Scholar](#)

Kamal and Himel, 2023 M. Kamal, A.S. Himel, Redefining modern marketing: An analysis of AI and nLP's influence on consumer engagement, strategy, and beyond. Eigenpub Review of Science and Technology, 7 (1) (2023), pp. 202-221,

<https://studies.eigenpub.com/index.php/erst/article/view/22>, [Google Scholar](#)

Karkošková, 2023 S. Karkošková, Data governance model to enhance data quality in financial institutions. Information Systems Management, 40 (1) (2023), pp. 90-110, [10.1080/10580530.2022.2042628](#), [View at publisher](#)[View in Scopus](#)[Google Scholar](#)

Keegan et al., 2024, B.J. Keegan, D. Dennehy, P. Naudé. Implementing artificial intelligence in traditional B2B marketing practices: An activity theory perspective. Information Systems Frontiers, 26 (3) (2024), pp. 1025-1039, [10.1007/s10796-022-10294-1](#), [View at publisher](#)

[View in Scopus](#)[Google Scholar](#)

Khanfar et al., 2024, A.A. Khanfar, R. KianiMavi, M. Iranmanesh, D. Gengatharen

Determinants of artificial intelligence adoption: Research themes and future directions.

Information Technology and Management (2024), pp. 1-21, [10.1007/s10799-024-00435-0](#)

[View at publisher](#), [Google Scholar](#)

Khatri, 2023, M.R. Khatri, Integration of natural language processing, self-service platforms, predictive maintenance, and prescriptive analytics for cost reduction, personalization, and real-time insights customer service and operational efficiency. International Journal of Information and Cybersecurity, 7 (9) (2023), pp. 1-30.

<https://publications.dlpress.org/index.php/ijic/article/view/36>, [Google Scholar](#)

Kumar et al., 2023, S. Kumar, U. Gupta, A.K. Singh, A.K. Singh. Artificial intelligence: Revolutionizing cyber security in the digital era sarvesh. Journal of Computers, Mechanical and Management, 2 (3) (2023), pp. 31-42, [10.57159/gadl.jcmm.2.3.23064.31](#), [View at publisher](#)[Google Scholar](#)

Ledro et al., 2023, C. Ledro, A. Nosella, I. Dalla Pozza, Integration of AI in CRM: Challenges and guidelines, Journal of Open Innovation: Technology, Market, and Complexity, 9 (4) (2023), pp. 1-13, [10.1016/j.joitmc.2023.100151](#), [View at publisher](#)[Google Scholar](#)

Liu et al., 2023, R. Liu, S. Gupta, P. Patel, The application of the principles of responsible AI on social media marketing for digital health. Information Systems Frontiers, 25 (6) (2023), pp. 2275-2299, [10.1007/s10796-021-10191-z](#), [View at publisher](#), [View in Scopus](#)[Google Scholar](#)

Rosário and Dias, 2023, A.T. Rosário, J.C. Dias, How has data-driven marketing evolved: Challenges and opportunities with emerging technologies. International Journal of Information Management Data Insights, 3 (2) (2023), pp. 1-14, [10.1016/j.jjime.2023.100203](#)

[View in Scopus](#)[Google Scholar](#)

Rupp and von Grafenstein, 2024, V. Rupp, M. von Grafenstein. Clarifying “personal data” and the role of anonymisation in data protection law including and excluding data from the scope of the GDPR (more clearly) through refining the concept of data protection

Computer Law and Security Review, 52 (2024), pp. 1-25, [10.1016/j.clsr.2023.105932](#)

[Google Scholar](#)

Said, 2023 S. Said The role of artificial intelligence (AI) and data analytics in enhancing guest personalization in hospitality. Journal of Modern Hospitality, 2 (1) (2023), pp. 1-13, [10.47941/jmh.1556](#), [Google Scholar](#)

Soni, 2023, V. Soni Large language models for enhancing customer lifecycle management

Journal of Empirical Social Science Studies, 7 (1) (2023), pp. 67-89.

<https://publications.dlpress.org/index.php/jesss/article/view/58>[Google Scholar](#)

Tehrani et al., 2024, A.N. Tehrani, S. Ray, S.K. Roy, R.L. Gruner, F.P. Appio. Decoding AI readiness: An in-depth analysis of key dimensions in multinational corporations. Technovation, 131 (2024), pp. 1-18, [10.1016/j.technovation.2023.102948](#), [View at publisher](#)[Google Scholar](#)

- Tominc et al., 2024P. Tominc, D. Oreški, V. Čančer, M. Rožman, Statistically significant differences in AI support levels for project management between SMEs and large enterprises
AI (Switzerland), 5 (1) (2024), pp. 136-157, [10.3390/ai5010008](#), [View at publisher](#)[View in Scopus](#)[Google Scholar](#)
- Verma et al., 2024, R. Verma, S. Koul, K.V. Ajaygopal, Evaluation and selection of a cybersecurity platform: Case of the power sector in India. Decision Making: Applications in Management and Engineering, 7 (1) (2024), pp. 209-236, [10.31181/dmame712024891](#)
[View at publisher](#)[View in Scopus](#)[Google Scholar](#)
- Wang et al., 2023, L. Wang, N. Huang, Y. Hong, L. Liu, X. Guo, G. Chen Voice-based AI in call center customer service: A natural field experiment. Production and Operations Management, 32 (4) (2023), pp. 1002-1018, [10.1111/poms.13953](#), [View at publisher](#)[View in Scopus](#)[Google Scholar](#)
- Williamson and Prybutok, 2024, S.M. Williamson, V. Prybutok. Balancing privacy and progress: A review of privacy challenges, systemic oversight, and patient perceptions in AI-Driven healthcare. Applied Sciences (Switzerland), 14 (2) (2024), pp. 1-47, [10.3390/app14020675](#), [View at publisher](#)[View in Scopus](#)[Google Scholar](#)
- Xiao and Tan, 2024, Y. Xiao, H.Y. Tan, Why can't you be all talk to get things done? Consumer acceptance of voice-assisted products. The Journal of Product and Brand Management, 33 (1) (2024), pp. 125-137, [10.1108/JPBM-10-2022-4204](#), [View at publisher](#)[Google Scholar](#)
- Zada et al., 2023, M. Zada, J. Khan, I. Saeed, S. Zada, Z.Y. Jun, Curiosity May have killed the cat, but it has the power to improve employee creativity. Current Psychology, 42 (36) (2023), pp. 32299-32313, [10.1007/s12144-022-04171-y](#)[View at publisher](#)[View in Scopus](#)[Google Scholar](#)

THE IMPACT OF ARTIFICIAL INTELLIGENCE ON DIGITAL MARKETING IN THE EUROPEAN UNION AND ALBANIA. CONSUMER BEHAVIOUR, ECONOMIC EFFICIENCY, NEUROMARKETING AND REGULATORY CHALLENGES

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Abstract

Digital marketing through the widespread use of Artificial Intelligence has changed the way businesses communicate with consumers, analyse their behaviour, and build sales strategies. Through predictive algorithms, automation, chatbots, personalised recommendations, sentiment analysis and content creation, AI has increased the ability of businesses to understand and influence consumer decision-making. In the European Union, this development occurs within an advanced regulatory framework, which includes the Artificial Intelligence Act, the General Data Protection Regulation and the Digital Services Act. In Albania, digital marketing is growing, but the use of AI remains less structured and more dependent on international platforms, especially social networks and global advertising systems. This paper analyses the impact of AI on digital marketing in the EU and Albania, focusing on consumer behaviour, economic efficiency, neuromarketing and ethical and regulatory challenges. The paper argues that AI brings significant economic benefits, such as reduced costs, increased targeting accuracy and improved conversion rates, but at the same time creates risks related to privacy, algorithmic manipulation, discrimination, transparency and consumer autonomy. For Albania, the main challenge is to build technological, legal and institutional capacities to use AI in a responsible and competitive manner.

Keywords: *Artificial Intelligence, Digital Marketing, Consumer Behaviour, Economic Efficiency, Neuromarketing, Albania, European Union, Privacy, Personalisation.*

1. Introduction

Digital marketing has become one of the main instruments of communication and economic competition in the contemporary economy. Unlike traditional marketing, which relied mainly on mass communication through television, radio, print or physical advertising, digital marketing is based on the use of the internet, online platforms, social networks, search engines, mobile applications and data analysis systems. In this context, artificial intelligence has gained particular importance because it enables companies to analyse large amounts of data, predict consumer behaviour, and create personalised messages in real time.

According to Davenport, Guha, Grewal and Bressgott (2020), artificial intelligence is expected to significantly change not only marketing strategies but also consumer behaviour. This is because AI is not only used to automate existing processes, but also to build new forms of

interaction between business and consumer. For example, algorithms can determine which consumer should be shown an advertisement, at what time, with what content and on which communication channel.

In the European Union, the impact of AI on digital marketing should be seen in the context of economic development, technological transformation and the protection of fundamental rights. The European Act on Artificial Intelligence entered into force on 1 August 2024 and aims to ensure the responsible development and use of AI systems in the European market (European Commission, 2024a). This act complements a broader regulatory ecosystem, which also includes the GDPR and the Digital Services Act. In the field of digital marketing, these rules are of particular importance because AI-based marketing uses personal data, profiling, ad targeting and automated decision-making.

In Albania, digital marketing has seen significant development in recent years, especially through social networks, online advertising, e-commerce and customer communication platforms. Albanian studies show that digital marketing influences the way Albanian consumers perceive brands, interact with businesses and make purchasing decisions (Braholi et al., 2023; Pjero&Kërcini, 2015). This shows that Albania, although it does not yet have a consolidated AI market in marketing, has created the social and technological basis for the wider use of these tools.

The purpose of this paper is to analyse the impact of artificial intelligence on digital marketing in the European Union and Albania, focusing on four main directions: the impact on consumer behaviour, the impact on economic efficiency, the role of neuromarketing and regulatory and ethical challenges.

2. Methodology

This paper relies on the qualitative, analytical and comparative method. Theoretically, the analysis is based on contemporary literature on digital marketing, artificial intelligence, neuromarketing and consumer behaviour. Empirically, the paper uses institutional and academic data from European, Albanian and international sources, including Eurostat, INSTAT, the European Commission, as well as studies published in scientific journals.

The comparative method is used to analyse the differences between the European Union and Albania. The EU represents a more developed digital market, with an advanced regulatory framework and a higher level of e-commerce use. Albania, on the other hand, represents a developing market, where digital marketing is growing, but the integration of AI still remains in its early stages.

An important limitation of the paper is the lack of specialised data in Albania on the concrete use of AI in digital marketing. For this reason, the Albanian analysis is based on broader indicators, such as internet usage, e-commerce, online consumer behaviour, and digital marketing practices in the domestic market.

3. Theoretical Framework: AI and Digital Marketing

Artificial intelligence can be defined as the ability of computer systems to perform tasks that traditionally required human intelligence, such as learning, reasoning, pattern recognition, natural language processing, and decision-making. In marketing, AI is used to analyse consumer behaviour, predict their needs, automate campaigns, and personalise the customer experience.

Digital marketing, according to Chaffey and Ellis-Chadwick (2022), involves the use of digital technologies to achieve marketing objectives, build customer relationships, and create value for the consumer and the enterprise. In this sense, AI is not a separate element outside of digital

marketing, but a tool that makes digital marketing more intelligent, more measurable, and more tailored to individual consumer behaviour.

Kotler, Kartajaya, and Setiawan (2021) link contemporary marketing to the use of advanced technologies, including AI, to create more personalised and human experiences for consumers. However, the use of technology should not be reduced to increasing sales alone; it should also be oriented towards creating trust, transparency, and sustainable value.

In practice, AI is used in digital marketing in several main forms. First, it is used for consumer segmentation, dividing the audience into groups according to behaviour, interests, purchase history, and demographic characteristics. Second, it is used to personalise advertising and content. Third, it is used for automatic product recommendations, such as in e-commerce platforms. Fourth, it is used for chatbots and virtual assistants, which communicate with customers. Fifth, it is used for predictive analytics, predicting demand, purchasing behaviour, and customer churn.

These uses show that AI is shifting marketing from a reactive to a proactive approach. Businesses are not just waiting for consumers to show interest, but are trying to anticipate that interest and influence it through personalised communication.

4. Albanian and European academic literature

Academic literature on digital marketing in Albania is still more limited compared to European Union countries, but in recent years several important studies have been published that help in understanding consumer behavior in the Albanian market. Braholi, Qafa, Goga and Bello (2023) analyze the impact of digital marketing on consumer behavior in Albania and highlight the role of social networks, online advertising and word-of-mouth communication in building brand image and increasing sales. The authors emphasize that companies that do not have an active presence on social networks or do not have a clear digital strategy risk lacking recognition from consumers (Braholi et al., 2023).

Another important contribution to the Albanian market comes from Zhezha, Kola and Melinceanu (2023), who analyse the level of use of digital marketing by Albanian companies. Their study treats digital marketing as an important instrument for the economic growth of enterprises and for expanding communication with consumers. The authors point out that digital presence has become a necessity for Albanian companies, but the use of digital tools is still developing and requires more strategic investment (Zhezha et al., 2023).

Likewise, Fejzaj and Gogo (2025) analyse the development of online marketing in Albania during the period 2019–2023. Their study shows that social networks and digital marketing influence consumer behaviour through online marketing techniques, while the use of social media has become an important tool for companies that aim to advertise their products and services (Fejzaj& Gogo, 2025).

Pjero and Kërcini (2015) have analysed the impact of social networks on consumer behaviour in the Albanian reality. According to them, social networks have changed the way businesses and consumers communicate with each other, influencing user attitudes, consumer behaviour, and purchase intentions (Pjero&Kërcini, 2015). This study is important because it shows that the impact of social platforms on Albanian consumer behaviour has begun to be addressed academically before the widespread spread of generative AI.

At the European level, recent literature on AI in digital marketing increasingly focuses on trust, transparency, and consumer acceptance of algorithmic technologies. Acatrinei, Apostol, Barbu, Chivu, and Orzan (2025), in a study on the use of AI in digital marketing through social and mobile networks, argue that AI increases personalisation, sentiment analysis, and campaign automation, enabling brands to better interact with users (Acatrinei et al., 2025).

These studies show that work on the impact of AI in digital marketing should not rely only on institutional reports, but also on academic literature that analyses consumer behaviour, trust, digital experience, and the role of social platforms. For Albania, existing literature shows that digital marketing is developing and really impacts consumer behaviour, while for the EU, the literature emphasises the need for a balance between personalisation, efficiency, and consumer protection.

5. The impact of AI on consumer behaviour

5.1 Personalisation of the consumer experience

One of the most important impacts of AI on digital marketing is personalisation. By analysing data on searches, clicks, purchases, location, time spent on use, and social media interactions, algorithms can create consumer profiles and deliver tailored content to each user. This makes the consumer experience faster, more relevant, and more tailored to individual needs.

In the EU, personalisation is closely linked to the development of e-commerce, programmatic advertising, and customer data management. The European consumer is increasingly part of a digital environment where recommendations, personalised ads, and algorithmic product ranking directly influence purchasing decisions.

In Albania, personalisation is less sophisticated, but it is growing through the use of social networks and digital advertising platforms. Albanian businesses, especially in the retail, tourism, food, fashion, professional services and private education sectors, increasingly use targeted advertising to reach specific consumers. However, in most cases, this targeting is carried out through large international platforms, which limit Albanian businesses' control over the algorithms and data used.

5.2 Impact on consumer decision-making

AI impacts consumer decision-making by directing their attention towards specific products or services. For example, when a consumer searches for a product online, the algorithm can decide which products to display first, which ads to display, which offers to send and which recommendations to highlight. In this way, AI is not only a technical tool, but also a factor that influences the architecture of consumer choice.

This impact can be positive, because consumers save time, receive more relevant recommendations and can more easily find products that match their interests. However, the impact can be problematic if algorithms limit choices, create unnecessary pressure, encourage impulsive purchases, or use personal data in a non-transparent manner. Davenport et al. (2020) point out that AI will affect not only the way companies build marketing strategies, but also the way consumers search, evaluate, and choose products.

Here, the difference between the EU and Albania is important. In the EU, consumer decision-making influenced by algorithms is addressed within a broader debate on consumer protection, privacy, and digital transparency. In Albania, this debate is even more limited, even though Albanian consumers use the same global platforms as European consumers.

5.3 Trust and Privacy

Trust is a fundamental element in digital marketing. Consumers may accept personalisation if they perceive it as useful, but may reject it if they feel monitored or manipulated. The more data AI uses to personalise ads, the greater the need for transparency and privacy protection.

In the EU, this issue is addressed through the GDPR and the guidelines on profiling and automated decision-making. The European Data Protection Board has addressed the importance of protecting individuals from the risks associated with profiling and automated

decision-making (European Data Protection Board, 2018). This is particularly important in marketing, because many personalised ads are based precisely on consumer profiling.

In Albania, the adoption of new legislation on the protection of personal data and the approximation with European standards creates a better basis for addressing these issues. However, the main challenge remains practical implementation. Many Albanian businesses may use AI tools or advertising platforms without fully understanding the obligations related to consumer information, the legal basis for processing, data retention, and the individual's right to object to profiling.

6. Neuromarketing, AI and Consumer Behaviour

Neuromarketing is an interdisciplinary field that combines marketing, psychology, neuroscience and consumer behaviour analysis. Essentially, it aims to understand not only what consumers say they want, but also the emotional, cognitive and unconscious responses that influence their decision-making. Unlike traditional market research methods, such as questionnaires or interviews, neuromarketing attempts to analyse deeper consumer reactions to advertisements, colours, images, sound, packaging, prices and digital experiences.

The connection between neuromarketing and artificial intelligence has become increasingly important in digital marketing. AI can analyse online behavioural data, such as clicks, time spent on a page, interactions on social networks, attention movements on the screen and reactions to content. When this data is combined with neuromarketing principles, businesses can better understand which elements of advertising attract attention, which ones evoke positive emotion, and which ones increase the likelihood of purchase.

In the European context, neuromarketing combined with AI has been treated as a development that increases marketing's ability to understand consumer reactions in real time. Bucea-Manea-Ţoniş, Martins, Orzan, Goldbach, and Popa (2026) argue that AI is transforming neuromarketing by enabling real-time analysis of neurometric, biometric, and psychometric data to optimise consumer engagement. Their study, based on PLS-SEM modelling, examines the relationship between neuromarketing knowledge, its application, and communication on social networks (Bucea-Manea-Ţoniş et al., 2026).

Neuromarketing is particularly relevant for the analysis of consumer behaviour, because many purchase decisions are not completely rational. The consumer is influenced by emotion, memory, visual perception, brand trust, social recommendations and a sense of urgency. In digital marketing, these factors are concretely manifested through page design, button colours, pricing, product ranking, the use of human figures, “limited offer” type messages and algorithmic recommendations.

In Albania, neuromarketing is not yet a consolidated field academically or practically. However, some of its elements are present in Albanian digital marketing, especially in social networks. The study by Fejzaj and Gogo (2025) shows that social media and online marketing influence consumer behaviour in Albania, while the focus on visual content and online advertising is directly related to the principles of neuromarketing on the influence of visual stimuli on decision-making (Fejzaj& Gogo, 2025).

Albanian studies on digital marketing also show that social networks, online communication and visual content influence the way consumers perceive brands and make purchasing decisions (Braholi et al., 2023; Pjero&Kërcini, 2015). This shows that although the term “neuromarketing” may not be widely used in Albanian literature, the phenomena it studies are present in the Albanian market.

However, the use of AI-powered neuromarketing also raises ethical issues. If AI is used to identify consumer psychological weaknesses and encourage impulsive purchases, then marketing can cross the line from commercial persuasion to manipulation. This is especially

important for vulnerable groups, such as minors, consumers with low levels of digital literacy or people who are not aware of how algorithmic targeting works.

For this reason, neuromarketing should be treated not only as an instrument for increasing sales, but also as a field that requires ethical responsibility, transparency and consumer protection. In the EU, this is related to the principles of transparency, prohibition of manipulative practices and protection of personal data. In Albania, the inclusion of neuromarketing in the analysis helps to understand that digital marketing affects not only the consumer's economic choices, but also their attention, emotions and perceptions.

7. The Impact of AI on Economic Efficiency

7.1 Cost Reduction and Automation

One of the main benefits of AI in digital marketing is increased economic efficiency. AI can automate tasks that previously required time and specialised staff, such as content creation, audience segmentation, ad testing, customer responses, and performance measurement. This reduces operational costs and increases the speed of decision-making.

McKinsey & Company (2023) estimates that generative AI can create significant economic value globally, with marketing and sales among the areas with the highest potential for benefits from this technology. In marketing, this value is created through faster content production, large-scale personalisation, more accurate customer analysis, and campaign optimisation.

In the EU, where e-commerce and digital infrastructure are more developed, AI can be more fully integrated into CRM systems, online sales platforms, inventory management and customer lifecycle analysis. This creates clear advantages in reducing costs, increasing productivity and improving the customer experience.

In Albania, the benefits of automation can be huge, especially for small and medium-sized businesses. An Albanian business can use AI to create social media posts, analyse customer feedback, automate message responses, target ads and measure campaign effectiveness. However, these benefits depend on the business's ability to use quality data and understand the results that the technology produces.

7.2 Increase conversion rate

The conversion rate is a key indicator in digital marketing, because it measures the percentage of users who complete a desired action, such as a purchase, registration, request information or download an application. AI helps increase this rate by identifying customers who are more likely to buy and showing them more relevant messages.

For example, an e-commerce platform can use AI to recognise customers who have abandoned their shopping cart and send them personalised reminders or offers. Similarly, a hotel can use AI to target tourists who have searched for similar destinations, while a private clinic can use digital analytics to understand which services are most in demand by customers.

In Albania, this potential is significant for sectors such as tourism, retail, food services, private education and professional services. However, many businesses still use digital marketing more as an online presence than as a full analytics system. This means that they can advertise on social networks, but they do not always accurately measure return on investment, conversion rate or post-click behaviour.

7.3 Competitive efficiency and digital inequality

AI can increase competitiveness by enabling businesses to better understand the market and react faster to changes. A company using predictive analytics can understand changes in demand earlier, adjust prices, optimise offers and build more sustainable relationships with customers.

However, AI can also create inequality between businesses. Large companies have more data, more budget, more technical staff and more opportunities to invest in advanced technology. Small businesses can remain dependent on ready-made tools of global platforms, without having full control over their digital strategy.

In Albania, this inequality is particularly evident. Businesses with better technological knowledge can significantly benefit from AI-based marketing, while traditional businesses may be left behind. Therefore, developing digital skills and training staff are necessary elements to avoid deepening the digital divide.

8. Regulatory framework in the European Union

The European Union has developed a regulatory approach that aims to balance technological innovation with the protection of fundamental rights. The Artificial Intelligence Act is the most important instrument in this regard. It is based on a risk-based approach, where AI systems are classified according to the level of risk they pose. The aim is to ensure that the use of AI is safe, transparent and in line with European values (European Commission, 2024a).

In digital marketing, although most AI applications may not necessarily be considered high-risk systems, they can have a major impact on consumer privacy, autonomy and behaviour. For this reason, the GDPR and the Digital Services Act are of particular importance.

The Digital Services Act requires online advertising to be identifiable and users to be informed about who is behind the advertisement and why it is being shown to them. It prohibits the use of sensitive data for ad targeting and prohibits manipulative digital design practices, known as “dark patterns” (European Commission, 2026a). These rules are essential for AI-based marketing because the consumer must be able to understand why an ad is being shown to them and on what logic it is being targeted.

Without this transparency, there is a risk that digital marketing will shift from commercial communication to algorithmic manipulation. This is why the European model of regulating AI and digital platforms is also relevant for EU candidate countries, including Albania.

9. Albania: the development of digital marketing and the challenges of AI

Albania is an emerging market for digital marketing. The increase in the use of the internet, smartphones, social networks and online shopping has created a favourable terrain for the use of AI tools in commercial communication. Albanian studies show that social networks and digital marketing influence consumers’ attitudes and decision-making (Braholi et al., 2023; Pjero&Kërcini, 2015).

However, the use of AI in Albanian marketing remains largely indirect. Many businesses do not build AI systems themselves, but use ready-made functionalities of platforms such as social networks, search engines and communication applications. This means that AI is present in Albanian marketing, but often invisibly for the business and the consumer.

A key challenge is the lack of technical capacity. Many small businesses do not have specialised staff for data analysis, digital strategy or management of privacy-related risks. Another challenge is the lack of consumer awareness of how advertising targeting works. Consumers may see personalised ads, but do not always understand that they are based on data collected from their online behaviour.

In this regard, Albania needs a more structured approach. Businesses need to understand that AI-based marketing is not just a sales tool, but also a process that requires legal and ethical responsibility. The use of personal data, consumer profiling and advertising targeting must be accompanied by information, transparency and respect for individual rights.

10. EU–Albania Comparative Analysis

The comparative analysis between the European Union and Albania shows that the impact of artificial intelligence on digital marketing takes place in two different economic, technological and regulatory realities. The European Union represents a more consolidated digital market, with more advanced infrastructure, wider use of e-commerce and a more detailed regulatory framework. Albania, on the other hand, represents an emerging market, where digital marketing has become increasingly important, but the use of AI still remains less structured and mainly mediated by international platforms, such as social networks, search engines and global advertising systems.

In the European Union, AI is more deeply integrated into the digital marketing ecosystem. European companies use advanced systems for data analysis, customer relationship management, programmatic advertising, content personalisation, chatbots, predictive analytics and customer experience optimisation. This development is associated with a higher level of enterprise digitalisation and the wider use of e-commerce. In this regard, AI does not function only as an auxiliary tool for advertising, but as an integrated part of business strategy and customer relationship management (Davenport et al., 2020; Chaffey & Ellis-Chadwick, 2022). In Albania, the use of AI in digital marketing is more indirect. Many Albanian businesses do not develop AI systems themselves but use ready-made features offered by global platforms, such as Facebook, Instagram, Google Ads, TikTok, and other communication and advertising applications. This means that AI is present in the Albanian market, but often invisibly for the business and the consumer. For example, when an Albanian business uses targeted advertising on social networks, it actually uses AI algorithms for audience segmentation, budget optimisation, and determining the most suitable users for advertising. However, businesses usually do not have full control over how the algorithm works, the audience selection criteria or the advertising distribution logic. Studies on Albanian companies show that digital marketing is increasingly considered as a tool for increasing performance and expanding communication with consumers, but its use is still in the process of strategic development (Zhezha et al., 2023).

Another important difference is related to the regulatory framework. The EU has built an advanced legal architecture for the digital economy, including the Artificial Intelligence Act, the General Data Protection Regulation and the Digital Services Act. The AI Act entered into force on 1 August 2024 and is based on a risk-based approach, while the Digital Services Act imposes obligations on the transparency of online advertising and the limitation of manipulative practices on digital platforms (European Commission, 2024a; European Commission, n.d.-a). These instruments aim to ensure that the use of AI and digital platforms is transparent, accountable and in line with the fundamental rights of the individual.

In Albania, although there are positive developments in terms of approximation with European standards, the main challenge remains practical implementation. Albanian businesses often perceive digital marketing as a commercial or technical issue, but not always as a process related to legal obligations for data protection, transparency and consumer rights. This creates a gap between the real use of digital tools and the level of legal awareness about them. Consequently, although Albania uses the same global platforms as EU countries, institutional control, compliance culture and consumer awareness are less developed. In terms of consumer behaviour, the European consumer is more exposed to sophisticated forms of personalisation, algorithmic recommendations and data-driven advertising. This makes the digital experience more tailored, but also more complex from the point of view of privacy and individual autonomy. In the EU, consumers have more protection mechanisms, such as the right to information, the right to object to data processing and advertising transparency obligations for platforms. However, even in the EU, it remains a challenge that many users do not fully

understand how algorithms influence their decision-making (European Data Protection Board, 2018; Acatrinei et al., 2025).

In Albania, consumers are also exposed to personalised advertising and algorithmic content, but often without a sufficient level of awareness of the mechanisms behind them. Social networks have a major impact on consumer decision-making, especially for everyday products, fashion, food, tourism services and products promoted by influencers. Albanian studies on digital marketing show that social networks, online communication and digital word-of-mouth influence the perception of brands and the purchasing behavior of Albanian consumers (Pjero&Kërcini, 2015; Braholi et al., 2023; Taraku & Taraku, 2025). However, Albanian users do not always clearly distinguish between informative content, sponsored advertising, personalised recommendations and algorithmic influence.

From the point of view of economic efficiency, the EU has an advantage due to economies of scale, technological capacities and greater integration of data in business decision-making. European companies can use AI to optimise the sales chain, analyse customer behaviour, automate customer service and increase the return on investment in marketing. In Albania, the economic potential is also significant, especially for small and medium-sized enterprises, but this potential is limited by the lack of technical expertise, the lack of data-driven strategies and the dependence on foreign platforms. For this reason, AI can serve as a factor of economic development only if it is accompanied by investments in digital skills, data management and sustainable marketing strategies (McKinsey & Company, 2023; Zhezha et al., 2023).

Another difference is related to neuromarketing. In the EU, neuromarketing and consumer behaviour analysis are increasingly being addressed in relation to AI, especially to understand consumer emotional reactions, attention and interaction with digital content. Recent studies show that AI can strengthen neuromarketing by enabling real-time analysis of neurometric, biometric and psychometric data, with the aim of optimizing consumer engagement (Bucea-Manea-Toniş et al., 2026). In Albania, neuromarketing is not yet a consolidated research or practical field. However, its elements are present indirectly, through visual advertising, the use of colours, human figures, emotional messages, influencers and other forms of influence on social networks. This shows that Albania is not outside the phenomenon, but has not yet conceptualised and regulated it clearly.

In conclusion, the EU–Albania comparison shows that both spaces face similar challenges related to AI in digital marketing, but at different levels of development. The EU faces the challenge of controlling an advanced technological ecosystem, where algorithms have a major impact on consumer behavior and economic competitiveness. Albania faces the challenge of building capacities, raising awareness and practical approximation to European standards. For Albania, the most appropriate path is to learn from the European model, developing an approach that fosters innovation and economic efficiency, but at the same time guarantees consumer protection, algorithmic transparency, and respect for personal data.

11. Ethical and Legal Risks

The use of AI in digital marketing is not without risks. One of the main risks is privacy infringement. Personalised marketing requires data collection and analysis, but not every consumer is aware of the extent of this processing. If businesses do not clearly inform users, then personalisation can turn into invisible surveillance.

Another risk is algorithmic discrimination. If algorithms are trained on biased data, they can produce unfair results. For example, different consumers may receive different offers or be excluded from certain advertisements based on their economic profile, location or online behaviour. This can create inequality and violate the principle of fair treatment.

Another problem is the manipulation of consumer behaviour. When AI is used to identify psychological vulnerabilities, create artificial urgency or encourage impulsive purchases, marketing crosses the line between legitimate persuasion and manipulation. For this reason, the Digital Services Act prohibits manipulative digital design practices and requires more transparency for online advertising (European Commission, 2026a).

An additional dimension of ethical risk is related to the combination of AI with neuromarketing. While traditional marketing tried to persuade the consumer through information and brand image, AI-based marketing and neuromarketing can analyse much finer behavioural signals, such as reaction to images, click-through rate, dwell time on content, and unconscious preferences. This can significantly increase the efficiency of advertising, but at the same time, it can violate consumer autonomy if used to manipulate emotional vulnerabilities or to encourage impulsive decisions.

In Albania, these risks need to be addressed preventively. Albanian businesses should draft internal policies for the use of AI in marketing, ensure transparency towards consumers, and avoid using data in an excessive or ambiguous manner. Likewise, public and academic institutions should promote education on privacy, digital security, and AI ethics.

12. Recommendations

First, businesses should use AI as a tool for value creation and not simply as a means of aggressively increasing sales. Personalisation should be beneficial to the consumer, transparent and proportionate.

Second, Albania should strengthen consumer digital education. Consumers should understand how personalised advertising works, what cookies are, what profiling is and how they can exercise their rights.

Third, Albanian businesses should invest in internal capacities for data analysis and digital marketing. It is not enough to use social media advertising alone; companies should measure results, analyse customer behaviour, and build long-term strategies.

Fourth, Albania should further align its practices with EU standards, particularly in the areas of advertising transparency, data protection and control of manipulative practices.

Fifth, Albanian universities and research institutions should conduct more empirical studies on the impact of AI on consumer behaviour. There is currently a lack of sufficient data on how Albanian consumers are influenced by algorithmic recommendations, personalised advertising, chatbots, and neuromarketing techniques. Sixth, neuromarketing should be used with ethical caution. If businesses analyse consumers' emotional and behavioural reactions, they should avoid manipulative practices and respect the dignity, autonomy, and privacy of the individual.

13. Conclusions

Artificial intelligence is transforming digital marketing by making it more personalised, faster, and more efficient. In the European Union, this transformation is taking place within a developed regulatory framework, where privacy protection, advertising transparency, and the limitation of manipulative practices are central elements. The Artificial Intelligence Act, the GDPR, and the Digital Services Act constitute the main basis of this model (European Commission, 2024a; European Commission, 2026a).

In Albania, digital marketing is on the rise, and consumers are increasingly involved in online shopping and interactions with brands through social networks. However, the use of AI is still in its development phase and is often realised indirectly through global platforms. This creates great opportunities for Albanian businesses, but also risks related to privacy, transparency, and technological dependence.

The impact of AI on consumer behaviour is twofold. On the one hand, it helps the consumer receive more appropriate recommendations and save time. On the other hand, it can limit their autonomy if used for manipulation, excessive targeting or unclear profiling. The inclusion of neuromarketing deepens this analysis, because it shows that digital marketing not only affects rational decision-making, but also the attention, emotions and perceptions of the consumer.

The impact on economic efficiency is also important because AI reduces costs, increases the conversion rate and helps businesses make more accurate decisions. In the comparative analysis, the EU is presented as a more advanced and regulated model, while Albania is a market with high potential, but in need of further institutional, technological and ethical development.

For Albania, the main challenge is that the use of AI in digital marketing does not remain simply a practice imported from global platforms, but turns into a responsible, transparent and competitive strategy for the domestic economy. This requires cooperation between businesses, public institutions, universities and civil society, in order for technological innovation to be accompanied by real consumer protection and sustainable economic development.

Bibliografia

- Acatrinei, C., Apostol, I. G., Barbu, L. N., Chivu, R.-G., & Orzan, M.-C. (2025). Artificial intelligence in digital marketing: Enhancing consumer engagement and supporting sustainable behavior through social and mobile networks. *Sustainability*, 17(14), 6638. <https://doi.org/10.3390/su17146638>
- Braholi, A., Qafa, M., Goga, I., & Bello, K. (2023). Digital marketing in Albania and its impact on consumer behavior. *Economicus*, 22(2), 7–23. <https://doi.org/10.58944/misk1763>
- Bucea-Manea-Țoniș, R., Martins, O. M. D., Orzan, M. C., Goldbach, D., & Popa, M. (2026). AI-enhanced neuromarketing and social media communication: Evidence from PLS-SEM analysis in an academic context. *Journal of Intelligence Studies in Business*. <https://doi.org/10.1177/18479790261420680>
- Chaffey, D., & Ellis-Chadwick, F. (2022). *Digital marketing: Strategy, implementation and practice* (8th ed.). Pearson.
- Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, 48, 24–42. <https://doi.org/10.1007/s11747-019-00696-0>
- European Commission. (2024a). *AI Act enters into force*. European Commission. https://commission.europa.eu/news-and-media/news/ai-act-enters-force-2024-08-01_en
- European Commission. (2024b). *AI Act: Regulatory framework for artificial intelligence*. European Commission. <https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai>
- European Commission. (n.d.-a). *The Digital Services Act*. European Commission. Retrieved May 16, 2026, from <https://digital-strategy.ec.europa.eu/en/policies/digital-services-act>
- European Commission. (n.d.-b). *The impact of the Digital Services Act on digital platforms*. European Commission. Retrieved May 16, 2026, from <https://digital-strategy.ec.europa.eu/en/policies/dsa-impact-platforms>
- European Data Protection Board. (2018). *Guidelines on automated individual decision-making and profiling for the purposes of Regulation 2016/679*. EDPB. https://www.edpb.europa.eu/our-work-tools/our-documents/guidelines/automated-decision-making-and-profiling_en
- Eurostat. (2024). *E-commerce statistics*. European Commission. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-commerce_statistics
- Eurostat. (2025). *E-commerce statistics for individuals*. European Commission. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-commerce_statistics_for_individuals
- Fejzaj, E., & Gogo, G. (2025). The development of online marketing in Albania in 2019–2023. *Acta Scientiarum Polonorum. Oeconomia*, 24(1), 15–23. <https://doi.org/10.22630/ASPE.2025.24.1.2>
- INSTAT. (2025). *Survey on information and communication technologies (ICT) usage in households and by individuals in 2025*. Institute of Statistics of Albania. <https://www.instat.gov.al>
- Kotler, P., Kartajaya, H., & Setiawan, I. (2021). *Marketing 5.0: Technology for humanity*. John Wiley & Sons.

- McKinsey & Company. (2023). *The economic potential of generative AI: The next productivity frontier*. McKinsey & Company. <https://www.mckinsey.com/capabilities/tech-and-ai/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier>
- OECD. (2019). *OECD principles on artificial intelligence*. Organisation for Economic Co-operation and Development. <https://www.oecd.org/en/topics/sub-issues/ai-principles.html>
- Pjero, E., & Kërcini, D. (2015). Social media and consumer behavior: How does it work in Albania's reality? *Academic Journal of Interdisciplinary Studies*, 4(3S1), 141–146. <https://doi.org/10.5901/ajis.2015.v4n3s1p141>
- Taraku, A., & Taraku, E. (2025). The role of social media and digital marketing in consumer behavior. *Interdisciplinary Journal of Research and Development*, 12(3 S1), 258. <https://doi.org/10.56345/ijrdv12n3s136>
- Zhezha, V., Kola, B., & Melinceanu, A. M. (2023). Exploring the landscape of digital marketing in Albania: Insights from local companies. *Academic Journal of Interdisciplinary Studies*, 12(4), 341–353. <https://doi.org/10.36941/ajis-2023-0120>

TOURISM AS A DRIVER OF ECONOMIC DEVELOPMENT IN ALBANIA: STATE POLICY, SUSTAINABILITY AND STRATEGIC CHALLENGES

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Abstract

Tourism has become one of the most important sectors of Albania's economic development. Over the last decade, the country has experienced a rapid increase in international tourist arrivals, stronger visibility in European and global markets, and growing investment interest in hospitality, coastal tourism, cultural heritage, agritourism and nature-based tourism. This paper analyzes tourism in Albania as a strategic instrument of economic development, with particular attention to state policy, sustainable growth, regional development, infrastructure, employment, foreign investment and the challenges of seasonality and environmental pressure. Although Albania has adopted a legal and institutional framework for tourism, including Law No. 93/2015 “On Tourism” and national tourism strategies, the main challenge is not merely legal regulation, but the transformation of tourism into a coordinated development model. The paper argues that Albania's tourism policy should move beyond the simple increase of visitor numbers and focus on quality, sustainability, regional diversification and long-term economic value. Tourism can generate employment, stimulate local economies, attract investment and support Albania's European integration process, but only if it is managed through integrated public policy, environmental protection, infrastructure development and human capital formation. The paper concludes that Albania's future tourism competitiveness depends on its ability to balance rapid growth with sustainable destination management.

Keywords: Albania, Tourism, Economic Development, Sustainable Tourism, Tourism Policy, Regional Development, Investment, EU integration.

JEL Classification: L83, O18, Z32

1. Introduction

Tourism has increasingly become a strategic pillar of Albania's economic development. Once considered an underdeveloped sector due to the country's political isolation during the communist period and the difficulties of transition in the 1990s, tourism is now one of the most dynamic components of the Albanian economy. Albania's coastline along the Adriatic and Ionian Seas, mountainous regions, UNESCO heritage sites, rivers, lakes, religious diversity, culinary traditions and relatively competitive prices have contributed to its emergence as an attractive destination in Europe.

The importance of tourism in Albania is confirmed by recent international data. According to UN Tourism, Albania recorded approximately **11.7 million international visitors in 2024**, while the tourism sector directly contributed around **6% of GDP** and played a visible role in foreign direct investment and economic growth (UN Tourism, 2025). UN Tourism also notes

that Albania ranked among the leading countries in the world for growth in international tourist arrivals compared with 2019, confirming its rapid post-pandemic tourism expansion (UN Tourism, 2025)

However, the rapid growth of tourism also raises important policy questions. The increase in visitor numbers does not automatically guarantee sustainable development. If tourism grows without adequate planning, it may produce environmental degradation, uncontrolled construction, infrastructure overload, seasonal employment, inequality between coastal and inland regions, and pressure on cultural heritage. Therefore, Albania’s main challenge is not simply to attract more tourists, but to transform tourism into a sustainable economic development model.

The purpose of this paper is to analyze tourism in Albania as a driver of economic development, focusing on state policy, sustainability, regional development and strategic challenges. The paper argues that Albania’s tourism policy should be understood as an economic development policy rather than merely as a legal-administrative framework. While legislation is necessary, it is insufficient without investment in infrastructure, human capital, destination management, environmental protection and regional diversification.

2. Methodology

This paper uses a qualitative policy-analysis methodology based on official reports, tourism strategies, legal documents, statistical sources and academic literature. The analysis relies on institutional sources such as UN Tourism, the European Bank for Reconstruction and Development, the European Commission, INSTAT and the Albanian tourism legal framework. It also uses academic studies on tourism development, sustainable tourism and the economic impact of tourism in Albania.

The paper is structured around five main analytical dimensions: tourism as an economic sector, the role of state policy, regional and local development, sustainability, and strategic recommendations. The purpose is not to conduct a quantitative econometric test, but to provide a structured academic assessment of tourism’s role in Albania’s development trajectory.

3. Tourism and Economic Development: Theoretical Perspective

Tourism is often treated as part of the service sector, but its economic effects extend beyond hotels, restaurants and travel agencies. Tourism affects construction, transport, agriculture, cultural industries, retail trade, digital services and local entrepreneurship. For this reason, tourism is frequently described as a cross-sectoral economic activity that can generate multiplier effects throughout the economy.

Crouch and Ritchie (1999) argue that tourism competitiveness is not based only on natural attractions, but also on destination management, infrastructure, supporting resources and public policy. This is particularly relevant for Albania, because the country possesses strong natural and cultural assets, but still faces challenges in infrastructure, service quality and destination governance. Tourism development therefore depends not only on what a country has, but also on how those resources are managed.

In the Albanian context, Tase and Lulaj (2022) emphasize that tourism has contributed significantly to economic and financial development in Albania and Kosovo, especially through its impact on GDP, employment and business activity. Their study also underlines the importance of tourist perceptions and service quality for the long-term competitiveness of destinations (Tase & Lulaj, 2022). The same study reports that tourism’s contribution to Albania’s GDP increased considerably before the pandemic, showing the sector’s growing relevance for national economic performance (Tase & Lulaj, 2022).

Tourism-led development, however, should not be reduced to visitor numbers. Jeyacheya and Hampton (2020) argue that inclusive tourism growth depends on the extent to which local communities and supply chains benefit from tourism activity. This argument is important for Albania, where tourism can support local food production, crafts, guesthouses, agritourism and small businesses if policy encourages local economic linkages rather than isolated resort-based development.

4. State Tourism Policy in Albania

Albania's tourism sector is regulated mainly by Law No. 93/2015 “On Tourism,” which provides the legal foundation for tourism governance, institutional responsibilities, tourism services and the development of the sector. The existence of such legislation is important because it creates a formal framework for state intervention, classification, promotion and coordination. However, the central issue in Albania is not the absence of law, but the effectiveness of implementation.

The National Tourism Strategy 2024–2030 aims to organize tourism development through regionalization and product consolidation. UN Tourism notes that Albania's government is focused on developing tourism through the National Tourism Strategy 2024–2030 and through the creation of six tourism regions (UN Tourism, 2025). This is an important step because it recognizes that tourism cannot be managed only through isolated destinations such as Tirana, Durrës, Saranda, Vlorë or the Albanian Riviera. Instead, tourism policy must connect coastal, mountain, cultural, rural and urban destinations into a coherent national model.

The earlier National Strategy for Sustainable Tourism Development 2019–2023 also treated tourism as a sector with growing importance for state revenue, entrepreneurship and family income. It stated that tourism was becoming a central element of Albania's national, social and economic development (Ministry of Tourism and Environment, 2019).

Nevertheless, the implementation of tourism policy remains uneven. Rapid construction in coastal zones, insufficient wastewater treatment, informal accommodation, limited destination management structures and weak coordination between central and local government continue to affect the sustainability of the sector. As Brokaj (2014) argues, sustainable tourism development in Albania requires the involvement of multiple stakeholders, including local government, businesses, residents and tourism professionals. Sustainable tourism is therefore not only a central government responsibility, but a collaborative governance process (Brokaj, 2014).

5. The Economic Contribution of Tourism in Albania

Tourism contributes to Albania's economy through several channels: foreign exchange earnings, employment, investment, tax revenue, infrastructure development, local entrepreneurship and international visibility. According to UN Tourism, Albania's tourism sector directly contributes around 6% to GDP and has become a major driver of the country's investment profile (UN Tourism, 2025). The same report notes that Albania attracted substantial foreign direct investment and greenfield investment announcements in tourism, showing that the sector is increasingly connected with capital inflows and broader economic modernization (UN Tourism, 2025).

The World Travel & Tourism Council has also identified Albania as one of the countries where travel and tourism have expanded strongly after the pandemic. WTTC reported that Albania's travel and tourism sector reached record levels in 2023, supporting employment and contributing strongly to the economy (WTTC, 2024).

From a development perspective, tourism is particularly important because it can create jobs across different skill levels. It provides employment opportunities for hotel workers, restaurant

staff, guides, drivers, construction workers, artisans, farmers, digital marketers and cultural workers. Tase and Lulaj (2022) emphasize that tourism has the potential to generate more employment in the future, but they also underline the need for education and training in order to improve service quality (Tase & Lulaj, 2022).

Tourism also has strong regional development potential. In Albania, many regions with high tourism potential have historically suffered from limited infrastructure, depopulation and weak industrial development. Tourism can help these regions by creating local income, encouraging return migration, supporting small businesses and preserving cultural heritage. Aliaj (2016) argues that Albania’s tourism potential is not limited to the coastline; it also includes mountains, lakes, national parks, archaeological sites, religious heritage, castles, traditional settlements and cultural diversity. According to Aliaj (2016), Albania needs a national system of access and infrastructure that respects environmental and landscape values.

6. Tourism, Infrastructure and Investment

Infrastructure is one of the most decisive factors for Albania’s tourism competitiveness. Natural beauty alone is not enough if tourists face poor roads, limited public transport, insufficient waste management, weak water supply, lack of parking, overcrowded beaches or unreliable digital information. Tourism development depends on the physical and institutional capacity of the destination.

The European Bank for Reconstruction and Development has supported tourism-related development in Albania through projects focused on infrastructure, skills and access to finance. The EBRD’s Albania Country Strategy 2025–2030 notes support for the Tourism Sector Skills Council, training opportunities in tourism products and services, tourism-enabling infrastructure, municipal and transport infrastructure, and access to finance for agribusinesses, farmers and tourism companies (EBRD, 2025).

This is important because Albania’s tourism model should not be based only on large coastal investments. Sustainable economic value requires connections between tourism and local production. For example, agritourism can connect restaurants and guesthouses with local farmers; cultural tourism can support artisans and museums; mountain tourism can support guides, transport services and rural accommodation; and urban tourism can support restaurants, events, creative industries and digital services.

Investment policy should therefore distinguish between productive tourism investment and speculative real estate development. A hotel or resort contributes more to development when it creates stable employment, buys local products, respects environmental standards and extends the tourism season. By contrast, construction that damages natural assets or produces empty seasonal apartments may generate short-term profit but weaken the long-term tourism economy.

7. Regional Development and Diversification of Tourism Products

One of Albania’s main weaknesses is seasonality. Tourism is still heavily concentrated in the summer season and in coastal destinations. This creates pressure on infrastructure during July and August, while many tourism workers and businesses face reduced income during the rest of the year. A more sustainable model requires diversification toward year-round tourism.

Albania has strong potential for several tourism products. Coastal tourism remains important, especially in Vlorë, Saranda, Himara, Durrës and the Albanian Riviera. However, cultural tourism in Berat, Gjirokastër, Butrint, Kruja and Shkodra can extend the tourism season. Mountain tourism in Theth, Valbona, Korça, Puka and other northern and southeastern regions can attract hikers, nature tourists and adventure travelers. Agritourism can connect rural development with food, wine, hospitality and local identity.

Berisha, Licaj and Murati (2025), in their study of tourism development in the Vlora Peninsula, argue that Albania has experienced significant improvements in infrastructure, services, promotion and diversification of tourism offerings during the last decade. Their research also links the current 2024–2030 tourism strategy with the goal of sustainable tourism development and notes the significant increase in visitors to Albania in recent years (Berisha et al., 2025). The challenge is to avoid a model where tourism remains concentrated only in a few coastal areas. Albania’s six tourism regions should be used as operational development units. Each region should have a clear identity: for example, coastal tourism, mountain tourism, heritage tourism, rural tourism, gastronomy, health and wellness tourism, or adventure tourism. This would allow Albania to distribute tourism benefits more evenly and reduce excessive pressure on the Riviera and urban centers.

8. Sustainable Tourism and Environmental Challenges

Sustainability is one of the most important issues for the future of tourism in Albania. The country’s competitive advantage is based largely on natural landscapes, beaches, mountains, rivers, lakes, and cultural authenticity. If these resources are damaged, Albania’s tourism brand will lose value. Therefore, environmental protection is not only an ecological concern but also an economic necessity.

The European Commission’s Albania Report 2024 emphasizes the importance of ensuring that infrastructure investments comply with EU environmental and climate standards, biodiversity obligations and public participation requirements (European Commission, 2024). This is directly relevant to tourism, especially in coastal zones and protected areas where investment pressure is high. (Albanian Country Strategy 2025-2030)

The Vjosa River is an important example. Albania declared the Vjosa River and its tributaries a national park, presenting it as one of Europe’s last wild rivers and as a potential model for sustainable nature-based tourism. However, environmental concerns remain regarding infrastructure projects, pollution and development pressure (Associated Press, 2023).

Sustainable tourism requires several concrete measures. First, Albania should strengthen environmental impact assessments for tourism investments. Second, protected areas should not be treated as construction reserves, but as long-term economic assets. Third, coastal municipalities need better waste and wastewater systems. Fourth, tourism businesses should be encouraged to adopt environmental standards. Fifth, local communities should participate in tourism planning, especially in areas where tourism affects land use, heritage and livelihoods. Brokaj (2014) emphasizes that sustainable tourism development in Albania requires stakeholder involvement, because tourism affects tourists, local residents, businesses and public authorities simultaneously. This means that sustainability cannot be achieved only through central legislation; it requires cooperation, transparency and local governance.

9. Tourism and Albania’s European Integration

Tourism is also connected with Albania’s European integration process. The sector can support EU alignment through standards related to environment, consumer protection, food safety, public services, infrastructure, heritage protection and regional development. Tourism can also improve Albania’s international image and strengthen its position as a European destination. Mishela (2025) argues that tourism should be embedded within Albania’s national development and EU accession strategies. According to this study, tourism contributes not only to economic growth, employment and investment, but also to modernization of public services, cultural heritage preservation and alignment with EU governance standards (Mishela, 2025). This argument is important because Albania’s tourism policy should not be isolated from broader state reforms. Tourism requires better public administration, stronger municipalities,

transparent investment procedures, environmental enforcement, quality education and digital governance. In this sense, tourism can function as a practical field where EU standards become visible in everyday economic life.

10. Main Challenges of Tourism Development in Albania

Despite its impressive growth, Albania faces several structural challenges.

First, tourism remains highly seasonal. The concentration of tourists in summer creates pressure on roads, beaches, accommodation, waste systems and local services, while limiting year-round employment.

Second, infrastructure remains uneven. Coastal areas have attracted investment, but many inland destinations still suffer from weak roads, insufficient public transport and limited tourist facilities.

Third, service quality and professional training remain major issues. As Tase and Lulaj (2022) note, tourism employment must be accompanied by education and training in order to improve professional service standards.

Fourth, environmental pressure is increasing. Coastal construction, pollution, pressure on protected areas and weak enforcement may damage the natural resources on which tourism depends.

Fifth, local communities do not always benefit sufficiently from tourism. If tourism development is dominated by large investments disconnected from local supply chains, the multiplier effect remains limited.

Sixth, Albania still needs stronger destination management. Promotion alone is not enough. Destinations need planning, visitor management, quality control, digital information, public transport, safety standards and crisis management.

11. Policy Recommendations

Albania should adopt a development-oriented tourism policy based on quality rather than quantity. The country has already achieved strong growth in visitor numbers; the next stage should focus on increasing value per visitor, extending the season and improving sustainability. First, Albania should strengthen regional destination management organizations. The six tourism regions should have operational structures, budgets, marketing strategies and sustainability indicators.

Second, tourism investment should be linked to local economic development. Public policy should encourage hotels and restaurants to buy local agricultural products, employ local workers, cooperate with local guides and support cultural heritage.

Third, Albania should invest in tourism education. Universities, vocational schools and private training centers should offer programs in hospitality management, foreign languages, digital tourism, culinary arts, sustainable tourism and destination management.

Fourth, infrastructure investments should prioritize inland tourism as well as coastal tourism. Roads, public transport, signage, waste management and digital infrastructure are essential for mountain, cultural and rural destinations.

Fifth, environmental protection must become a central pillar of tourism policy. Albania should avoid the mistake of sacrificing long-term natural assets for short-term construction profit.

Sixth, Albania should use tourism as part of its EU integration strategy. This means aligning tourism development with EU standards on environment, consumer protection, public procurement, cultural heritage and sustainable regional development.

12. Conclusion

Tourism has become one of the strongest engines of economic development in Albania. The rapid increase in international arrivals, growing investment interest and expanding international visibility show that Albania has entered a new phase of tourism development. However, the future success of the sector will depend not only on the number of tourists, but on the quality and sustainability of the development model.

The analysis shows that Albania's tourism policy should be understood as an integrated economic development strategy. Law and regulation are necessary, but they are not sufficient. Albania needs effective destination management, infrastructure investment, environmental protection, professional training, regional diversification and stronger links between tourism and local economies.

Academic literature and institutional reports confirm that tourism can contribute to GDP, employment, investment, regional development and EU integration. At the same time, they warn that tourism growth must be managed carefully in order to avoid environmental degradation, seasonality, inequality and weak service quality. The central policy challenge for Albania is therefore to move from rapid expansion to sustainable competitiveness.

In conclusion, tourism represents a historic opportunity for Albania. If managed strategically, it can become a long-term pillar of economic modernization, regional development and European integration. If managed poorly, it risks becoming a source of environmental pressure and uneven development. The future of Albanian tourism depends on the ability of public institutions, private actors and local communities to build a model based on sustainability, quality and inclusive economic value.

References

- Aliaj, B. (2016). *Albania 2030: Economic development based on tourism*. Scientific Journal of the Observatory of Mediterranean Basin, 2, 12–17. <https://doi.org/10.37199/o41002101>
- Associated Press. (2023, March 15). *Albania declares new national river park, backs airport plan*. Associated Press.
- Berisha, L., Licaj, L., & Murati, M. (2025). Development of tourism in Albania during the last decade: Case study of the Vlora Peninsula. *European Scientific Journal*, 21(43), 53. <https://doi.org/10.19044/esj.2025.v21n43p53>
- Brokaj, R. (2014). Sustainable tourism development in Albania through stakeholders involvement. *Academic Journal of Interdisciplinary Studies*, 3(2), 313–320. <https://doi.org/10.5901/ajis.2014.v3n2p313>
- Crouch, G. I., & Ritchie, J. B. (1999). Tourism, competitiveness, and societal prosperity. *Journal of Business Research*, 44(3), 137–152. [https://doi.org/10.1016/S0148-2963\(97\)00196-3](https://doi.org/10.1016/S0148-2963(97)00196-3)
- European Bank for Reconstruction and Development. (2025). *Albania country strategy 2025–2030*. EBRD.
- European Commission. (2024). *Albania 2024 report*. Directorate-General for Neighbourhood and Enlargement Negotiations.
- Institute of Statistics of Albania. (2024). *Tourism statistics: Movements of citizens and accommodation establishments*. INSTAT.
- Jeyacheya, J., & Hampton, M. P. (2020). Wishful thinking or wise policy? Theorising tourism-led inclusive growth: Supply chains and host communities. *World Development*, 131, 104960. <https://doi.org/10.1016/j.worlddev.2020.104960>
- Ministry of Tourism and Environment of Albania. (2019). *National strategy for sustainable tourism development 2019–2023*. Government of Albania.
- Mishela, R. (2025). Tourism as a catalyst for economic development in Albania: A pathway to EU accession. *Economicus*, 24(1), 73–92.
- OECD. (2024). *OECD tourism trends and policies 2024*. OECD Publishing. <https://doi.org/10.1787/80885d8b-en>
- Tase, M., & Lulaj, E. (2022). The effect of perceptions on tourism: An econometric analysis of the impacts and opportunities for economic and financial development in Albania and Kosovo. *Sustainability*, 14(13), 7659. <https://doi.org/10.3390/su14137659>
- UN Tourism. (2025). *Tourism doing business: Investing in Albania*. United Nations Tourism.

World Travel & Tourism Council. (2024). *Albania's travel and tourism sector bursts onto the world stage*. WTTC.

IMPACT OF DIGITALIZATION IN MARKETING ON CONSUMER BEHAVIOR

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Abstract

The digital age has revolutionized marketing and consumer behavior within the digital marketplace. It has transformed not only marketing strategies but also the way consumers search for information, compare products, and make purchasing decisions. Traditional marketing relied heavily on television, radio, newspapers, and billboards to communicate messages to passive audiences. In contrast, modern digital marketing is interactive, data-driven, personalized, and continuous, utilizing search engines, social media platforms, websites, mobile applications, email marketing, influencer marketing, and shoppable advertisements across multiple channels.

This transformation has empowered consumers to become more informed, selective, and responsive to digital stimuli while increasing the importance of transparency, trust, and user experience. The availability of information enables consumers to compare prices, read reviews, and evaluate products before making purchasing decisions. Consequently, the consumer journey has become increasingly non-linear and influenced by multiple digital touchpoints.

Furthermore, digitalization has enabled marketers to personalize content and offers through the analysis of consumer data, including browsing behavior, location, and purchase history. Although personalization improves customer engagement and relevance, it also raises concerns regarding privacy, surveillance, and behavioral manipulation. Social media and influencer marketing have strengthened the impact of social proof, making user-generated content and influencer recommendations more persuasive than traditional advertising.

The convenience of digital shopping, combined with one-click purchasing options and psychological marketing tactics such as flash sales and scarcity messages, has contributed to increased impulsive buying behavior. Simultaneously, consumers expect real-time, efficient, and seamless digital interactions, prompting organizations to adopt technologies such as chatbots, live chat systems, and automated notifications.

Overall, digitalization has fundamentally reshaped marketing and consumer behavior by integrating technology, commerce, psychology, culture, and ethics within a complex digital ecosystem.

Keywords: Digitalization, Digital Marketing, Consumer Behavior, Social Media, Personalization, Artificial Intelligence, Consumer Trust.

1. Introduction

Digitalization has fundamentally transformed contemporary marketing and significantly altered the way consumers discover, evaluate, and purchase products and services. In the pre-digital era, marketing communication was primarily unidirectional, with companies delivering messages through television, radio, newspapers, and billboards while consumers acted as passive recipients of information. Today, digital marketing is dynamic, interactive, and highly personalized.

Brands now engage consumers through search engines, social media platforms, websites, email campaigns, mobile applications, influencer content, and digital advertisements. As a result, marketing messages accompany consumers throughout their daily activities, influencing behavior across multiple touchpoints. This evolution has created more informed, connected, and demanding consumers who actively participate in the decision-making process.

2. Increased Access to Information

One of the most significant effects of digitalization is the democratization of information. Consumers no longer rely exclusively on salespeople or traditional advertisements when evaluating products. Instead, they can access detailed product descriptions, customer reviews, comparison tools, expert opinions, and demonstration videos with minimal effort.

Search engines and e-commerce platforms provide immediate access to alternative products and competing brands, allowing consumers to make better-informed purchasing decisions. Consequently, organizations face greater competition and must provide transparent, accurate, and valuable information to maintain consumer trust and loyalty.

3. Transformation of the Consumer Decision-Making Process

Traditional consumer behavior models describe a linear purchasing process consisting of need recognition, information search, evaluation of alternatives, purchase, and post-purchase evaluation. Digitalization has disrupted this model by creating a more complex and non-linear customer journey.

Consumers may first encounter a product through social media, continue researching through search engines, compare alternatives on e-commerce platforms, and complete the purchase via a mobile application. Throughout this process, they are influenced by advertisements, reviews, recommendations, algorithms, and influencer-generated content.

Therefore, digital marketing affects consumers before, during, and after a purchase, creating continuous engagement rather than isolated interactions.

4. Personalization and Targeted Marketing

Digital platforms collect substantial amounts of consumer data, including browsing history, search activity, purchasing behavior, location, and device usage. Marketers utilize this information to create personalized advertisements, recommendations, and promotional messages.

Personalization increases the relevance of marketing communications by matching products and services with individual consumer preferences. Consumers are more likely to engage with content that reflects their interests and needs, leading to higher conversion rates and customer satisfaction.

However, extensive data collection raises concerns regarding privacy and surveillance. While consumers appreciate convenience and personalized experiences, many are increasingly concerned about the amount of information organizations collect and utilize for marketing purposes.

5. Social Media and Influencer Marketing

Social media platforms have become major drivers of consumer behavior. Platforms such as Instagram, TikTok, YouTube, Facebook, and X allow brands to interact directly with consumers while enabling users to share experiences, opinions, and recommendations.

The influence of social proof has grown substantially in the digital environment. Online reviews, ratings, and user-generated content often have greater credibility than traditional advertising because consumers generally trust other consumers more than corporate messages.

Influencer marketing has further strengthened this trend. Influencers present products in authentic and relatable contexts, making their recommendations particularly persuasive among younger audiences. As a result, digital marketing increasingly depends on community engagement and user-generated content rather than solely on company-controlled communications.

6. Impulse Buying in the Digital Environment

The speed and convenience of online shopping have encouraged impulsive purchasing behavior. E-commerce platforms minimize purchasing barriers through features such as one-click checkout, stored payment information, mobile wallets, and fast delivery options. Additionally, marketers employ psychological tactics such as flash sales, countdown timers, limited-stock notifications, and scarcity messages to create urgency and encourage immediate action. Social media advertisements and short-form videos further stimulate spontaneous purchases by presenting products in attractive and emotionally appealing contexts. Although these strategies can increase short-term sales, they may also contribute to excessive spending and post-purchase regret among consumers.

7. Changing Consumer Expectations

Digitalization has significantly increased consumer expectations regarding service quality, convenience, and responsiveness. Modern consumers expect websites and applications to be fast, intuitive, and user-friendly.

Poor website performance, complicated navigation, or delayed customer support can negatively influence purchasing decisions. In contrast, brands that provide seamless digital experiences are more likely to build customer satisfaction and loyalty.

Technologies such as chatbots, live chat services, automated email responses, and personalized notifications help organizations meet these expectations by reducing uncertainty and improving communication efficiency.

8. Trust, Transparency, and Authenticity

Trust has become a central component of consumer behavior in the digital age. Consumers are exposed to vast amounts of information and must evaluate which sources are reliable and credible.

Organizations that provide transparent information regarding products, pricing, delivery conditions, and company policies are more likely to gain consumer trust. Conversely, misleading advertising, fake reviews, hidden fees, and deceptive practices can quickly damage brand reputation.

Because information spreads rapidly through digital channels, negative experiences can reach large audiences and significantly affect consumer perceptions. Consequently, transparency, authenticity, and consistency are essential for maintaining long-term customer relationships.

9. Privacy and Ethical Concerns

Despite its benefits, digitalization has introduced significant ethical challenges. Consumers are increasingly aware that their online activities are monitored, recorded, and analyzed for marketing purposes.

Technologies such as cookies, tracking pixels, location tracking, and device identifiers enable organizations to create detailed consumer profiles. This has generated concerns regarding data privacy, surveillance, consent, and manipulation.

Many consumers express discomfort when advertisements appear to follow them across websites or when highly personalized marketing messages reveal extensive knowledge about

their behavior. Therefore, marketers must balance personalization with ethical responsibility and transparency.

10. Artificial Intelligence and Consumer Behavior

Artificial Intelligence (AI) has become an essential component of digital marketing. AI technologies analyze consumer data, predict behavior, automate communication, and personalize content at scale.

Chatbots, recommendation engines, and predictive algorithms assist consumers throughout the purchasing process by providing real-time guidance and recommendations. Generative AI tools can create personalized emails, advertisements, product descriptions, and other marketing materials.

While AI improves efficiency and customer experience, it also raises concerns regarding transparency, authenticity, and algorithmic bias. Consumers may not always recognize whether they are interacting with humans or automated systems, creating new ethical considerations for marketers.

11. Sustainability and Ethical Branding

Sustainability has become an increasingly important factor influencing consumer behavior. Many consumers, particularly younger generations, consider environmental impact, social responsibility, and ethical business practices when making purchasing decisions.

Digital marketing enables organizations to communicate sustainability initiatives through social media, videos, transparency reports, and influencer partnerships. Companies that genuinely demonstrate environmental responsibility can strengthen consumer trust and loyalty. However, misleading sustainability claims, often referred to as “greenwashing,” can quickly damage brand reputation if exposed through online communities and social media platforms.

12. Generational Differences in Digital Consumer Behavior

Different generations exhibit distinct patterns of digital behavior. Generation Z consumers are highly engaged with social media, influencer content, and short-form video platforms. They value authenticity, diversity, and social responsibility and often discover products through digital channels rather than traditional advertising.

Older consumers may rely less on social media but increasingly utilize digital tools for research, price comparisons, and online shopping. Consequently, marketers must adapt content, communication styles, and platform selection to meet the preferences of diverse demographic groups.

Conclusion

Digitalization has profoundly transformed consumer behavior and marketing practices. It has increased access to information, altered decision-making processes, enhanced personalization, strengthened social influence, and accelerated impulse purchasing. At the same time, it has raised consumer expectations regarding convenience, speed, transparency, and customer experience.

The growing use of artificial intelligence, social media, and sustainability-focused communication continues to shape both individual purchasing decisions and broader cultural trends. However, these opportunities are accompanied by challenges related to privacy, ethics, trust, and data security.

To succeed in the digital marketplace, marketers must balance technological innovation with ethical responsibility while maintaining transparency and consumer trust. Ultimately,

digitalization is not only changing how marketing is conducted but also transforming how individuals think, feel, and behave as consumers in an increasingly connected world.

References

- Shamir. (2026, March 17). *How digital marketing affects consumer behavior*. Marketorr BD.
- Digital, T. (2024, December 13). *How digital transformations influence consumer behaviors*. TWOMC Digital Agency.
- IJRASET. (n.d.). *Impact of digitalization on purchase decision of electronic goods*.
- Awesome. (2026, January 6). *Top 10 Digital Consumer Behavior Trends for 2025–2026*. Breakthrough3X.
- Dzinepixel Web Studio. (2024, August 21). *How Digital Marketing Shapes Consumer Behavior: A Deep Dive into Modern Shopping Trends*.
- Cheung, G. (2024, December 3). *How Does Digital Marketing Influence Consumer Decision-Making?* AIFT.
- EDC Paris Business School. (2025). *What Are the Current Trends in Digital Marketing?*
- Yasmina. (2025, September 29). *Digital Marketing Trends: The Keys to the Future*. Beyond by ESADE.

THE INFLUENCE OF DIGITAL MARKETING ON CONSUMER ATTITUDES IN THE DECISION-MAKING PROCESS

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Abstract

The emergence of digital marketing has transformed the consumer landscape by changing how individuals identify, evaluate, research, and purchase products and services within the interconnected digital economy. Unlike traditional marketing channels such as television, radio, newspapers, and billboards, digital marketing provides real-time, personalized, and interactive communication through search engines, social media platforms, websites, email marketing, mobile applications, and online advertising.

This paper examines the influence of digital marketing on consumer attitudes—defined as consumers’ beliefs, feelings, and opinions—throughout the decision-making process. It explores how digital marketing affects each stage of the consumer journey, including need recognition, information search, evaluation of alternatives, purchase decisions, and post-purchase behavior.

Positive influences include information transparency, social media engagement, influencer marketing, personalized advertising, educational content marketing, and digital convenience. These factors contribute to trust, emotional engagement, and favorable attitudes toward brands. However, digital marketing may also generate negative attitudes through advertising fatigue, privacy concerns, excessive personalization, and deceptive marketing practices.

The findings suggest that digital marketing plays a critical role in shaping consumer attitudes and purchasing decisions. To foster positive consumer perceptions and long-term loyalty, organizations must prioritize authenticity, transparency, user experience, and responsible data management.

Keywords: Digital Marketing, Consumer Attitudes, Consumer Behavior, Decision-Making Process, Social Media Marketing, Personalization, Brand Loyalty.

Introduction

Digital marketing has fundamentally transformed the way consumers gather information, evaluate alternatives, and make purchasing decisions. In the past, businesses primarily relied on television, radio, newspapers, and billboards to communicate with consumers. Today, consumers are continuously exposed to digital content through search engines, websites, social media platforms, email campaigns, mobile applications, and online advertising.

Unlike traditional marketing, digital marketing creates a two-way communication process between organizations and consumers. This interactive environment allows brands to engage directly with audiences, respond to feedback, and personalize marketing messages.

Consequently, digital marketing significantly influences consumer attitudes, which in turn affect purchasing behavior and decision-making processes.

Consumer Attitudes and Their Importance

Consumer attitudes consist of the beliefs, feelings, and opinions individuals develop toward products, services, or brands. These attitudes influence whether consumers trust a brand, consider it among alternatives, and ultimately decide to purchase its products or services. Digital marketing shapes consumer attitudes by increasing awareness, improving familiarity, and providing valuable information that enhances confidence. Furthermore, digital platforms allow businesses to communicate directly with consumers, making brands appear more accessible, transparent, and customer-oriented.

Information Transparency and Consumer Trust

One of the most significant contributions of digital marketing is increased transparency. Online consumers have access to product descriptions, customer reviews, ratings, tutorials, and comparison websites that help reduce uncertainty during the purchasing process. When consumers can easily access credible and consistent information, they are more likely to develop positive attitudes toward a brand. Transparency also shifts the balance of power from businesses to consumers. Rather than relying solely on company messages, consumers can verify information through reviews, social media discussions, and independent sources. As a result, purchasing decisions have become more evidence-based and socially influenced.

Social Media Marketing and Consumer Perceptions

Social media platforms such as Instagram, TikTok, Facebook, YouTube, and X have become powerful marketing channels. These platforms enable brands to create interactive, engaging, and shareable content that reaches consumers in their everyday digital environments. Compared to traditional advertising, social media marketing often feels more personal because consumers encounter brand messages alongside content from friends, creators, and communities. This familiarity increases attention, engagement, and brand recall. In addition, social media facilitates direct interaction between consumers and brands through comments, likes, shares, and private messages. Such interactions create a sense of responsiveness and connection that positively influences brand perceptions.

The Role of Influencer Marketing

Influencer marketing has emerged as one of the most effective digital marketing strategies for shaping consumer attitudes. Influencers present products within authentic lifestyle contexts, making products appear more relatable and desirable. Consumers often perceive influencers as trustworthy sources of information because they resemble peers rather than traditional advertisers. This effect is particularly strong among younger consumers who frequently rely on social media personalities when making purchasing decisions. However, influencer marketing is most effective when consumers perceive the endorsement as genuine. Hidden sponsorships or exaggerated claims may damage trust and create negative attitudes toward both the influencer and the brand.

Targeted Advertising and Personalization

Targeted advertising represents another important factor influencing consumer attitudes. Digital platforms collect information regarding browsing behavior, purchase history, interests, and online activities, allowing marketers to deliver highly relevant advertisements.

Personalized marketing messages often increase consumer engagement because they address specific needs and preferences. When advertisements appear relevant and useful, consumers tend to view them more positively than generic promotional content.

Furthermore, personalization can accelerate decision-making by reducing the time consumers spend searching for relevant products. Customized recommendations, retargeting campaigns, and limited-time offers often encourage faster purchasing decisions.

Content Marketing and Consumer Education

Content marketing plays a significant role during the information search and evaluation stages of the consumer decision-making process. Consumers frequently seek blogs, articles, videos, reviews, and tutorials before making purchases.

Organizations that provide valuable educational content position themselves as knowledgeable and trustworthy sources. Instead of relying solely on promotional messages, content marketing helps consumers solve problems, answer questions, and make informed decisions.

As a result, content marketing strengthens positive attitudes by creating value and supporting consumer autonomy.

Negative Effects of Digital Marketing

Despite its advantages, digital marketing may negatively influence consumer attitudes when used excessively or irresponsibly. Constant exposure to advertisements, repetitive messages, and intrusive promotional tactics may lead to advertising fatigue.

Consumers may also develop negative perceptions when they feel overwhelmed by marketing communications or believe their privacy has been compromised. Excessive data collection and aggressive targeting can generate feelings of discomfort, manipulation, and mistrust.

Therefore, marketers must balance relevance, frequency, and respect for the consumer experience.

Privacy Concerns and Ethical Issues

Privacy has become a critical issue in digital marketing. Consumers are increasingly aware that organizations collect, monitor, and analyze personal information to improve targeting and personalization.

Although many consumers appreciate personalized experiences, others view extensive tracking practices as invasive. Trust can quickly deteriorate if consumers feel that brands possess excessive knowledge about their personal behavior.

For this reason, companies must ensure transparency regarding data collection practices and provide consumers with clear options for managing their privacy preferences.

Convenience and Consumer Satisfaction

Digital marketing contributes significantly to consumer convenience. Online shopping allows consumers to move from product discovery to purchase within minutes, often without leaving their homes.

Features such as one-click checkout, mobile payment systems, saved preferences, and delivery tracking simplify the purchasing process and enhance customer satisfaction. These conveniences generate positive emotions that strengthen favorable attitudes toward brands.

In many cases, the quality of the online experience becomes as important as the product itself.

Digital Marketing Across the Decision-Making Process

The consumer decision-making process generally includes five stages:

Need Recognition

Information Search

Evaluation of Alternatives

Purchase Decision

Post-Purchase Behavior

Digital marketing influences each stage. It creates awareness through advertising, supports information search through websites and reviews, facilitates evaluation through comparisons and recommendations, encourages purchases through promotional offers, and strengthens post-purchase relationships through customer service and follow-up communications.

Consequently, digital marketing accompanies consumers throughout the entire customer journey.

Post-Purchase Engagement and Brand Loyalty

Digital marketing continues to influence attitudes after a purchase has been completed. Brands frequently maintain communication through review requests, loyalty programs, personalized emails, and customer support services.

Positive post-purchase experiences reinforce satisfaction and increase the likelihood of repeat purchases. Conversely, negative experiences can spread rapidly through online reviews and social media platforms, potentially damaging brand reputation.

Long-term loyalty is built not only through product quality but also through consistent and meaningful digital interactions. Brands that provide valuable information, respond to customer concerns, and maintain authentic communication often establish stronger emotional connections with consumers.

Conclusion

Digital marketing has a profound influence on consumer attitudes throughout the decision-making process. It shapes how consumers perceive brands, evaluate products, and make purchasing decisions. Transparency, personalization, convenience, social proof, and meaningful engagement contribute to positive consumer attitudes, while privacy concerns, advertising fatigue, and deceptive practices may create negative perceptions.

As digital technologies continue to evolve, organizations must balance persuasive marketing strategies with ethical responsibility, transparency, and consumer trust. Ultimately, digital marketing remains one of the most influential forces shaping consumer behavior in contemporary markets.

References

- Bagwell, T. J. (2012). *The Influence of Social Media Advertising on Consumers During Their Purchase Decision-Making Process and the Implication for Marketers*.
- Cheung, G. (2024). *How Does Digital Marketing Influence Consumer Decision-Making?* AIFT.
- Dzinepixel Web Studio. (2024). *How Digital Marketing Shapes Consumer Behavior: A Deep Dive into Modern Shopping Trends*.
- Dzreke, S. S. (2025). *Influence of Social Media on Consumer Behavior: Investigating How Social Media Platforms Shape Consumer Purchasing Decisions and Loyalty*. Open Journal of Business and Management, 13(2), 1154–1175.
- Global, S. (2025). *The Influence of Digital Marketing on Consumer Behavior*. Stafford Global.
- Vidal, B. H. (2024). *How Digital Marketing Influences Consumer Behavior*.

Zhang, C., & Li, M. (2025). *The Impact of Social Media Advertising on Consumer Purchase Decisions*. *Frontiers in Business Economics and Management*, 18(1), 5–10.

DIGITAL TRANSFORMATION IN BANKING: EVIDENCE AND STRATEGIC IMPLICATIONS FROM BULGARIA

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Abstract

There is no denying that digital transformation has changed the banking sector across the world, transforming the way that financial organizations operate and serve their clients. The current paper delves into analyzing the effect of technologies like artificial intelligence (AI), innovative developments in fintech, and digital payment systems on the evolution of banking business models. Although these technologies offer more effective service delivery and improve the customer experience, they also bring certain risks in terms of cyber security, systemic stability, and regulatory challenges. This study includes an analysis of the European regulatory environment for digital technologies and the relevant legislation, such as the Artificial Intelligence Act (AI Act). Also, the current study considers the situation regarding digital banking and technological advancement in Bulgaria.

Keywords: Artificial Intelligence, AI Act, Banking, Bulgaria, Digital Transformation, Financial Regulation, Fintech, Financial Risk.

Introduction

Over the last decade, the digital transformation became a vital driver for the banking sector development and restructuring. The fast speed of innovation and modern technologies development makes financial companies adopt various digital solutions aimed at increasing their performance, improving customer experience, and remaining competitive in the ever-changing market environment (European Central Bank [ECB], 2023; Financial Stability Board [FSB], 2017). Digital transformation goes far beyond the mere transition to digitization but reflects a deeper structural transformation of the banking business.

In particular, artificial intelligence (AI), fintech innovations, mobile banking, and digital payments represent the key trends that help financial companies process big data volumes, automate decisions and provide customers with personalized services almost instantly (European Banking Authority [EBA], 2021). Moreover, they pose serious challenges for traditional business models and change the nature of competition among banks and other entities entering the market (FSB, 2017). The adoption of digital innovations goes far beyond the use of AI and comprises such areas as cloud computing, open banking, and platform financial ecosystem (European Commission, 2021). Overall, it results in the gradual transformation of banks from traditional branch.

The current research will address the changes that digital transformation brings to the banking industry, especially the role of artificial intelligence both as an enabler and a threat. Additionally, the reaction of regulatory institutions in Europe will be considered as well as a practical example provided by the Bulgarian banking system.

Digital Transformation in Banking: Key Technologies

The development of banking digital transformation processes is determined by the use of different innovative technologies that together provide a new level of development of financial services. Such technologies include artificial intelligence, mobile banking apps, cloud computing, data analytics, and open banking ecosystems (European Commission, 2021; FSB, 2017).

AI has become a key technology component used in the process of digital transformation. Banks implement machine learning algorithms that help to assess credit risk, detect fraud, develop investment strategies, and find new business opportunities, all while the financial regulation is trying to catch up. Compared to statistical models, AI models are more accurate and efficient, allowing for faster decision-making processes in these activities (EBA, 2021; BIS, 2018).

Another crucial technology related to digital transformation is mobile banking applications and digital payment technologies. The growing popularity of smartphones resulted in the increased use of digital financial services. Transactions performed through digital services generate a lot of data which can be effectively used in the process of providing better service to customers (ECB, 2024).

Cloud computing becomes another key technology that helps banks to digitalize their operations. Open banking and an ecosystem based on APIs become an important technology that enables collaboration between banks and fintech companies.

Together, these innovative technologies representing the core of modern digital banking, enable faster, more efficient, and more customer-centric financial services. The combination of all of the mentioned technologies creates the backbone of modern digital banking.

Digital Banking Transformation in Bulgaria: Consumer Behavior, Infrastructure, and Strategic Gaps

Over the last ten years, Bulgaria also has been affected by the evolving consumer needs and behavior. The banking sector in the country experienced a rapid adoption of various digital financial services. All these changes led to a significant shift in the country from cash-based transactions towards the digital and card-based payments. This reflects broader trends in Europe of institutional digitalization while maintaining local characteristics (European Central Bank [ECB], 2024; Fonseca et al, 2022).

According to recent findings, there has been a consistent increase in the number of electronic payments. The use of digital payments also increases. The incorporation of instant payment systems like the national Blink system has played an integral part in ensuring that this trend is enhanced, especially by allowing the transfer of funds from one person to another instantly. In this case, this trend is very significant in a market where the use of cash was dominant (BNB, 2024).

However, at the same time, Bulgarian citizens display a blend of behaviors regarding financial matters. While young people and those who live in urbanized areas use mobile and online banking services at a fast pace, older Bulgarians and those living in rural areas prefer using traditional banks. Thus, while such a mixture presents several challenges, it also provides certain opportunities that financial organizations should be ready to exploit.

Table 1: Internet Banking Usage (% of Population) – Bulgaria, Selected European Countries and European Union Average as of December 2025

Region / Country	Internet Banking Usage (% of population)

Bulgaria	31.1
Denmark	97.6
Netherlands	95.6
Sweden	82.0
Belgium	79.3
Cyprus	78.1
Spain	74.8
Germany	70.7
Greece	63.0
Poland	58.2
Italy	56.4
Romania	31.0
Albania	25.5
Montenegro	18.0
European Union Average	~69.7%

Source: Eurostat, Trading Economics

The above information in table one shows clearly that there is a very big difference between Bulgaria and the EU average, implying that although the infrastructure aspect of digitalization may have improved greatly, behavioral adoption of digitalization is still not even. The question on the necessary infrastructure to promote digitalization, Bulgaria has achieved some success in meeting European requirements. As the European Commission's evaluations show, Bulgaria has succeeded in increasing its score in relation to digital public services, connectivity, and fintech ecosystem development. Still, Bulgaria lags significantly behind many European countries when it comes to advanced digital skills, AI implementation, and digitalization at the business level (European Commission, 2024).

Table 2. Internet Access and Usage in Bulgaria (2025)

Indicator	Value (%)
Households with internet access	92.8
Individuals using internet regularly (daily or weekly)	86.5
Goods or services bought for private use over internet	51.2
Use of the global network for interaction with public authorities or public services	35.9
Use of Generative AI	22.5

Source: Republic of Bulgaria National Statistical Institute

According to the results in the table above, Bulgaria is characterized by the high degree of readiness for the development of digital infrastructure. The majority of its residents are

connected to the Internet, and people are using it actively. As it can be seen from the presented data, there is a certain gap between the access to digital resources and their active utilization among Bulgarian people.

One of the major developments here includes the swift emergence of Bulgarian fintechs, which have become a key force behind innovations in finance. There are more than 150 fintech companies in Bulgaria, along with rising levels of investment. The country seeks to become a regional technology hub. The fintech companies mentioned above play a significant role in the transformation of banking through new products in payment transactions, loans, and analytics services, thus making existing traditional banks speed up their digital strategy. Among the examples is the company Payhawk that shows Bulgaria’s involvement in global fintech markets (Bulgarian Fintech Association, 2022).

Table 3. Payment Behavior Shift in Bulgaria

Payment Method	Share (%)
Digital Wallets	49%
Credit/Debit Cards	32%
Bank Transfers	9%
Cash	2%

Source: Economic.bg (2024)

The data in Table 3 highlight an important change towards using digital forms of payment in Bulgaria, where both digital wallets and cards are used in most transactions. The fact that only 2% of the transactions involve cash is an indicator of a clear change in consumer behavior and that consumers/households are increasingly relying on digital payment instruments.

Table 4. Growth of the FinTech Sector in Bulgaria

Indicator	2020	2022
Number of Companies	136	156
Revenue (in billions Bulgarian lev)	~1,2	1,8
Employment	~8,665	11,862

Source: Bulgarian Fintech Association & FinTech Report – Romania and Bulgaria

The data in Table 4 shows a clear growth of the FinTech sector in Bulgaria, with the number of companies increasing from around 136 to over 150 in a short period. Revenues reach approximately 1.8 billion leva, which shows a significant increase compared to previous years. Additionally, employment in the sector is growing by around 14% per year, which is an indicator of sustainable development.

The described transformation process also exposes some issues. First, there is a high level of reliance on foreign vendors for technology, including cloud services and AI-based solutions - this is creating certain concentration risks. Second, even though there is a good regulatory alignment with EU laws, there is still a lack of implementation capacity and technological resources to aid the implementation. Third, the spread of digital technology among SMEs is rather slow (European Commission, 2024).

Strategically speaking, Bulgarian banks are at a crucial crossroads where they need to go beyond digitization and establish a digital ecosystem by integrating technology, data, and consumer strategy. Utilizing artificial intelligence will also be crucial to enhance efficiency, make strategic decisions, engage consumers, and innovate new products. Simultaneously, it will be imperative to maintain consumer trust, particularly regarding issues such as data privacy, cyber security, and compliance (European Banking Authority [EBA], 2021).

Table 5: Growth of E-Commerce and Digital Transactions in Bulgaria

Indicator	Value
Total e-commerce market size (2025)	€2.69 billion
Annual growth rate (2025 vs 2024)	~15%
Share of population shopping online	55%+
E-commerce share of GDP (e-GDP)	2.53%
Projected growth trend	Double-digit growth expected through 2026

Source: Bulgarian E-Commerce Association (BEA) via Ecommerce Europe

From the summary analysis above shown in table 5, there is an indication that the e-commerce business is growing significantly in Bulgaria because of the high number of online sales worth more than €2.69 million, which continue to grow at a double-digit rate. It can be seen from the data that over 55% of buyers engage in online transactions due to growing confidence in digital transactions and integration of digital processes into the daily business environment. Although the percentage contribution of digital transactions to the Gross Domestic Product in Bulgaria is low (2.53%), the country has great potential in developing its e-commerce sector.

In summary, the process of digital transformation of the banking industry in Bulgaria is consistent with the trend of converging with the European financial system while stressing the significance of domestic institutions, behaviors, and technologies. The future prospects appear very promising, but efforts will still be needed to address existing deficiencies.

Artificial Intelligence as a Core Driver of Digital Banking

One technology that has had an important impact on the banking industry is artificial intelligence. In contrast to previous technologies, which only helped to increase efficiency, artificial intelligence has transformed how decisions are being made through automation (Financial Stability Board [FSB], 2017; European Banking Authority [EBA], 2021).

In credit risk management, for instance, artificial intelligence models include both structured and unstructured data, making them capable of more accurate predictions regarding the probability of borrowers failing to repay their loans. As a result, this approach allows to overcome information asymmetries, optimize capital allocation, and decrease the number of defaults (European Banking Authority [EBA], 2021; Bank for International Settlements [BIS], 2018). Moreover, artificial intelligence has also greatly contributed to better fraud detection by using transactional patterns and discovering possible anomalies (Financial Stability Board [FSB], 2017).

Algorithmic trading systems in the financial markets utilize AI to process the data in the market and trade quickly and accurately. Although this has contributed to making the market more efficient and liquid, it is also associated with increased instability during stressed periods in the market (European Central Bank [ECB], 2023). In addition, there has been an increase in the use of SupTech by the regulatory agencies, whereby AI is used to supervise the financial

systems and identify any systemic risks in them (Bank for International Settlements [BIS], 2018; European Central Bank [ECB], 2023).

Opportunities Created by Digital Transformation

Opportunities abound for the banking industry with regard to digital transformation, especially when dealing with emergent financial ecosystems such as those of Bulgaria, where technological adaptation continues to be fast-tracked. For one, the efficiency of operations in the industry can be greatly improved through the process. Bulgarian banks have adopted the use of automated systems in functions such as payments processing, customer onboarding, and compliance. Such efficiency becomes necessary in a relatively small market characterized by stiff competition among banking institutions. It improves profitability and enhances sustainability (BNB, 2024; EBA, 2021).

Moreover, the use of digital technologies in the sector helps to enhance the customer experience. This is seen in the growth of mobile banking applications in the country that makes it possible to deliver banking services whenever and wherever. More so, there are many younger Bulgarians who are increasingly using their phones for various banking operations. Digital technologies enable the provision of personalization of financial products, speedy processing of transactions, and user-friendly experiences (ECB, 2024).

Also, the expansion of financial inclusion is another great opportunity for development and innovation. The introduction of digitalization in Bulgaria is assisting in the bridging of the gap in access to financial services among people who do not live in large cities as well as small enterprises that operate out of rural areas. Financial transactions and digitalized finances require no physical infrastructure, and thus lower the entry barriers. This applies especially to SMEs, which enjoy better access to financing and financial technologies through the digitalization process (World Bank, 2022 and 2025; Bulgarian Fintech Association, 2022).

Moreover, thanks to digital transformation, Bulgarian financial organizations have the opportunity to extend their scope beyond borders without having any branches in other countries. In other words, using the online platform and implementing fintech innovations, banks and other financial organizations will be able to develop their business in another territory without spending additional resources for building the corresponding infrastructure. Therefore, this process opens up new prospects and gives Bulgaria an opportunity to become a new emerging center of the fintech ecosystem of the region. It is worth mentioning the numerous examples of fintech Bulgarian companies operating on the international level, for instance, Payhawk.

Additionally, digital transformation contributes to innovations in the sphere of finance by promoting cooperation between fintech companies and traditional banks. It should be mentioned that the sphere of finance in Bulgaria is growing very rapidly, which is evidenced by the increased investments in fintech and an increased number of financial organizations implementing technologies. Open banking systems contribute to the creation of innovative solutions and services, creating competition in the field of finance. Therefore, digital transformation contributes to innovations in the financial sphere and helps traditional financial organizations stay innovative (European Commission, 2021; Bulgarian Fintech Association, 2022).

Risks and Challenges of Digital Banking

While digital transformation offers considerable advantages, it also poses risks that significantly change the nature of financial stability and resilience of financial institutions. One of the most serious dangers associated with AI technology is its "black-box" approach, i.e., the lack of clarity and transparency. Indeed, the opacity of models can pose considerable problems

in terms of responsibility, possible discrimination, and regulatory compliance. For example, non-transparent models used for credit scoring could be inadvertently biased and inaccurate (Zetzsche et al., 2020; EBA, 2021).

The concept of systemic risk should also be considered since the growing adoption of AI tools and approaches by all banks is likely to result in increased uniformity across the sector. In situations when the market experiences considerable volatility, a synchronized response could be observed, thus accelerating the process of sell-offs and credit constriction, which can lead to systemic risk and contagion (FSB, 2017; ECB, 2023).

A cybersecurity risk is heightened by operating in a digital banking system as well. The increased use of AI by financial institutions exposes them to cyber risks since they rely on technologies and digital infrastructures, which may be easily infiltrated. AI systems may be subjected to risks such as manipulation of the data provided to create false results and interfere with decision making. Such cyber risks are worsened by the fact that there is an increase in the volume and importance of financial data (BIS, 2018).

Digital banking also heightens the possibility of experiencing concentration risks through the use of cloud service providers and third-party technology suppliers. The disruptions caused by a service provider to one institution may spill over to affect other organizations relying on them. Such issues are of great concern and have raised questions regarding third-party risks (EBA, 2021).

In particular, in the case of Bulgaria, the risks connected to ICT development are especially topical because the banking sector in this country undergoes rather dynamic digitalization processes, developing its technological and institutional capacity accordingly (Bulgarian National Bank [BNB], 2024). In general, digital platform integration, usage of AI tools, and application of cloud computing in the banking sphere raise concerns about possible cybersecurity threats and other risks. According to the research conducted by BNB, it is necessary to pay much attention to the issues regarding information and communication technologies (ICT) and related risks.

The cybersecurity concerns are especially topical for Bulgaria. It is known that the development of the ICTs leads to the rise of digital payment. However, at the moment when transaction volume becomes substantial, it is crucial to find a way to secure the digital banking transactions, as the lack of cybersecurity tools may cause severe risks. Additionally, it is worth noting that small size of the national market might lead to the insufficient amount of funds needed to ensure the highest levels of protection from cyberattacks.

At the same time, there is also the issue of dependence on external companies and third parties. As Bulgarian banks start applying cloud services and fintech solutions, they become increasingly dependent on foreign suppliers of software and other technological products. In this situation, it becomes crucial to consider the aspect of concentration risk. Indeed, Bulgaria does not have strong national technological capacity for digital banking operations; thus, it depends greatly on other countries.

Finally, there is also the question of insufficient knowledge and skills related to IT and digital banking sphere. Although Bulgaria can be regarded as quite developed in terms of infrastructure and fintech tools, the availability of specialists is much lower than in other European countries. Such a constraint influences not only banks but also national regulatory agencies (European Commission, 2024).

Regulatory Framework in the European Union

The European Union (EU) has taken steps in regulating the digital transformation in the banking industry by establishing the Artificial Intelligence Act (AI Act). The Act represents the first substantial effort to develop unified legal framework around artificial intelligence. The

AI Act explores the different categories based on the level of danger these technologies pose towards individuals, markets, and economic stability (European Commission, 2021; European Parliament, 2024 and 2025).

In terms of regulating AI in banking, there is much emphasis put on high-risk AI applications such as credit scoring, loan approvals, and various other decisions based on machine learning. The regulation aims to ensure that these algorithms meet various standards such as transparency, data governance, documentation, human involvement, risk management, among others. The aim of the regulation is to ensure that any machine learning algorithm is effective, reliable, responsible, ethical, explainable, and safe (European Commission, 2021; EBA, 2021). It is important to highlight that the AI Act does not work in isolation in the EU digital regulation landscape. AI Act is complementary with other regulations - General Data Protection Regulation (GDPR) and Digital Operational Resilience Act (DORA). GDPR aims at providing guidelines for data governance, while DORA aims at mitigating ICT-related risks in financial markets (ECB, 2023; European Union, 2022).

The proposed regulatory framework is not without its shortcomings. The most apparent issue lies in regulatory complexity, which results from numerous legal acts and regulations that financial organizations should comply with in order to achieve proper performance. Moreover, the issue of coordination is still pressing since regulators have to collaborate at both national and international levels. The rapidly developing IT environment poses another problem that is known as regulatory lag, meaning that the technological development rate surpasses the regulator's ability to provide timely adjustments to the existing legal system. More and more efforts have to be made by regulators to adapt their technical and supervisory skills to the ever-changing landscape of finance (Financial Stability Board [FSB], 2017; European Central Bank [ECB], 2023).

With regard to the application of the European regulatory framework to the Bulgarian context, one can state that there are certain opportunities and potential barriers. First and foremost, being part of the European Union means that Bulgarian organizations have to implement a number of EU regulations, including but not limited to AI Act, GDPR, and DORA. It is the Bulgarian National Bank that performs the function of an overseer in this process. According to recent statements of its representatives, the institution pays particular attention to addressing technological risks and managing digital processes properly (Bulgarian National Bank [BNB], 2024).

At the same time, one may note certain structural limitations of the current situation. To begin with, Bulgarian organizations and regulatory institutions lack a sufficient level of specialists in such fields as artificial intelligence, cybernetics, and data management (European Commission, 2024). This issue negatively impacts the process of implementation of the required regulations in practice, which implies some difficulties.

The interaction of different legislative documents may also cause complications in terms of the practical implementation of the current regulations, especially for relatively small banks. Thus, there is a need for effective coordination and proper strategic decision-making regarding innovations and compliance with regulations. However, considering the overall regulatory system of Bulgaria, it is reasonable to say that there are high chances of long-term success due to a structured and risk-based approach. Therefore, innovation and financial sustainability can be successfully combined within the proposed framework.

Regulatory Framework in the European Union

The digitalization has significantly transformed industries across the world with the financial sector specifically benefiting from innovations that made banking activities more efficient. However, with new risks emerging, regulatory authorities began introducing measures to

regulate the changes. One of the key achievements in this area has been the introduction of the Artificial Intelligence Act (AI Act) in Europe. Being one of the first comprehensive efforts worldwide to develop a standardized AI regulation, the AI Act serves as a good example of how the regulation should be developed. Risk-Oriented Approach to AI Governance According to the European Commission and the European Parliament, the AI Act introduces a new classification system for all AI applications, depending on the extent of their impact on individuals, markets, and the economy. Under the classification, AI applications can be divided into low-risk, limited-risk, and high-risk applications. Credit scoring, loan approvals, and overall all financial applications fall into the latter category due to their potential impact on people's lives. Hence, the use of such high-risk applications requires them to meet certain regulatory requirements related to data transparency and quality, traceability, and human oversight.

In general, the European AI regulation is integrated into the existing regulatory framework, which seeks to regulate digital financial activities. It is based on three important regulations that work together to mitigate the risks involved in the process. These include the GDPR, DORA, and the previously mentioned AI Act. In contrast to the former regulation, the focus of the two latter regulations is on the risks associated with information and communication technologies (ICTs) and digital banking. Hence, the regulatory approach developed in Europe aims at managing digital risks and encouraging innovation.

There are ongoing challenges of regulatory framework. Although the European Union has made a lot of effort in terms of creating a coherent regulatory approach to digital finance, there remain several challenges in its implementation. Among them, there are the lack of coordination across different EU states, complexity caused by numerous legal frameworks, and regulatory lag caused by fast technological changes (Financial Stability Board). The problem of regulatory lag is especially acute because it makes it difficult for regulators to maintain the necessary expertise. Hence, this problem also needs to be addressed.

Bulgaria as an EU member state had to adapt to the changing regulatory environment. In particular, the Bulgarian National Bank, which is responsible for banking supervision in Bulgaria, focuses heavily on the necessity to manage ICT risks and build digital resilience (Bulgarian National Bank). Over the past several years, the Bank has shown increasing interest in this issue as well as in the importance of AI applications in financial activities.

Potential problems with implementation in practice exist. Nevertheless, applying the existing regulation in practice poses certain problems. First, there is a scarcity of professionals with sufficient expertise in artificial intelligence, data governance, and cybersecurity. This problem may have adverse effects on the implementation and supervision of AI applications, including credit scoring and loan approval (European Commission). Bulgarian banks experience challenges due to having to comply with all three regulations – the AI Act, GDPR, and DORA, as such complex requirement increases the cost of maintaining digital operations. At the same time, alignment with the European model can help Bulgaria to achieve long-term financial stability. It can also facilitate its integration into the European financial system. Additionally, the use of a risk-oriented approach can help build trust in the financial market.

Digital Transformation in Bulgaria

Digitization has become one of the key characteristics of modern banking systems. It influences the ways financial services are provided, controlled, and consumed. The development of such digital technologies as artificial intelligence, mobile banking services, and digital payments has become an integral part of the shift towards increasingly efficient, accessible, and client-oriented financial environments (Financial Stability Board [FSB], 2017; European Central Bank [ECB], 2024). In this regard, Bulgaria stands out as one of the illustrative examples of

digital transformation taking place in the context of a developing and fast-evolving financial environment.

During the last ten years, the number of companies involved in financial innovations in Bulgaria has grown substantially. At least 150 Bulgarian fintech firms are operating in Bulgaria and developing payments, lending, financial management, and enterprise finance-related applications. Thus, digitization and the emergence of fintech companies in Bulgaria has increased the level of competition in the banking sector, yet it has also opened the door to new partnerships between banks and technology-oriented businesses (Bulgarian Fintech Association, 2022).

At the same time, the Bulgarian National Bank plays an important role in this transformation. On the one hand, the entity aims to secure financial stability. On the other hand, it actively works towards introducing new digital technologies in banking and regulating their use (Bulgarian National Bank [BNB], 2024). To achieve these goals, the Bulgarian National Bank has shifted toward better supervision, enhanced ICT risk management techniques, and alignment of the country's regulatory practices with European Union initiatives, including the AI Act and DORA (BNB, 2024).

One of the most obvious signs of digital transformation in the financial sector in Bulgaria is connected with a fast-growing share of digital payments in the country. It should be mentioned that the shift was largely driven by changes in consumers' behavior, namely, their willingness to abandon cash-based transactions in favor of card-based and electronic transactions (European Central Bank [ECB], 2024). Another indicator of such transformations is the development of instant payment services, like Blink.

Moreover, digital transformation is associated with a change in consumer preferences. Indeed, modern Bulgarian customers – especially young people living in cities – become more willing to use various fintech applications, such as online banking services, digital wallets, and online loans. However, certain degree of heterogeneity can also be observed since there are groups of Bulgarians, who prefer classic forms of money transactions and traditional financial services. In terms of infrastructure, one should admit that Bulgaria has made some progress in these terms as well. As shown in European Commission reports, the country continues its digital transformation efforts. Nevertheless, the level of development in terms of advanced digital skills, enterprise technologies, and artificial intelligence in Bulgaria remains behind EU leaders (European Commission, 2024).

At the same time, there are several challenges related to digital transformation of finance in the country. For example, Bulgaria still suffers from the lack of specialists capable of working with various aspects of digitized finance and fintech. Thus, the lack of data scientists and specialists who could handle issues related to cybersecurity or artificial intelligence affects both financial institutions and regulators in the country. Moreover, some financial companies might not possess enough funds to develop new technologies in-house.

Additionally, financial institutions can face problems associated with partnerships with external tech entities. Namely, many financial organizations are dependent on their collaboration with various cloud service platforms or fintechs, which raises the question about possible risk factors in such partnerships. The process of transformation of finance in Bulgaria can be seen as a combination of convergence towards modern European finance and specific domestic features. The country has made a lot of progress in terms of digital banking technologies, fintechs, and alignment with European Union regulatory frameworks. Nevertheless, certain gaps in the area of technology development still exist.

Strategic Implications for Banks

Digital transformation does not just involve technological advancement – it also requires strategic realignment. The goal is the digital innovation success to be sustainable in this space. In order to remain competitive and resilient in an ever-changing digital environment, banks need to have strategic priorities that take into account various aspects of technological innovation and organizational changes. Specifically, this means continued investment in AI, data analytics, cloud computing, and cybersecurity to maintain competitiveness and sustainability (European Banking Authority [EBA], 2021; Financial Stability Board [FSB], 2017).

First, it is crucial to move away from the old model of IT infrastructures towards more modern approaches. Most banks still operate on legacy systems and are constrained in terms of their ability to innovate or respond to changing needs. Moving towards cloud computing and modular structures makes it easier to be flexible, scalable, and innovative. Moreover, in connection with the above, there should be robust frameworks for managing risks in operations and third parties (Bank for International Settlements [BIS], 2018).

Secondly, banks today have to pay attention to cybersecurity. The proliferation of digital channels and increased volume of data mean that financial institutions are under threat. Cybersecurity measures are necessary not only from a technological perspective but also in connection with the creation of appropriate organizational capabilities. Maintaining digital trust is crucial for long-term business success (European Central Bank [ECB], 2023).

Thirdly, collaboration with fintech firms is another priority to be considered. Instead of focusing on competition with fintechs, many banks are now embracing this collaboration to increase innovation, improve the portfolio of products, and improve customer experience. Through open banking and APIs, banks have a chance to become more customer-focused through new solutions (European Commission, 2021).

Fourthly, as a strategic priority, banks need to comply with an increasingly complicated regulation. The compliance with AI Act, GDPR, and/or DORA involves significant investment in risk management, data governance, and other aspects. However, regulatory compliance can actually serve as a source of competitive advantage (European Central Bank [ECB], 2023).

In the Bulgarian context, some of the above-listed strategic priorities are even more important for banks in the country. The banks in Bulgaria have shown significant progress when it comes to the adoption of digital platforms and improvements in customer-facing solutions. There is a clear need for further investment in core systems and the improvement of technological capabilities. According to the Bulgarian National Bank, digital resilience and management of ICT-related risks have become strategic priorities (Bulgarian National Bank [BNB], 2024).

Among the key strategic priorities, one should pay special attention to cybersecurity. It is crucial to ensure that the bank is able to protect its sensitive information from cyberattacks and has the corresponding capabilities. At the same time, the issue of cybersecurity also involves compliance with various regulations.

Collaboration with fintechs has become especially important because of the emergence of the Bulgarian fintech ecosystem. Collaboration with fintechs provides an opportunity for innovation and growth, which can help the banks stay competitive and make successful international expansions. Payhawk is an excellent example of a successful collaboration with a fintech company.

At the same time, Bulgarian banks may face certain challenges related to their resources and available talent pool. For instance, due to a shortage of specialists in such areas as artificial intelligence, data science, and cybersecurity, banks might struggle with implementing new technologies efficiently. There are also challenges related to the implementation of multiple changes in relation to compliance and technological innovation at once.

Overall, banks need to pursue a strategy aimed at creating a coherent digital ecosystem in terms of technology, customer experience, and risk management. This is achieved through the use of data-driven decision-making, adoption of digital platforms, and creation of innovation-friendly organizational cultures. Transparency, data protection, and regulatory compliance are equally important in maintaining banks' trust.

Efficiency, innovation, risk management, and customer-centricity – the combination of these elements determines the success of banks in the current digital era.

Conclusion

Digitalization and the financial technology has changed the banking industry by influencing its operations and structure. It also introduced new risks that require a different approach to managing the industry. Digitalization makes the use of artificial intelligence, digital payments, and data analytics possible and brings significant benefits for efficiency, decision-making, and customer engagement. On the other hand, there are some risks associated with the use of technology, including algorithmic opacity, cybersecurity vulnerabilities, and systemic interdependencies. All these new risks need to be managed carefully (Financial Stability Board [FSB], 2017; European Central Bank [ECB], 2023).

In general, digital transformation in the banking industry is regulated through a regulatory framework in the EU. Such initiatives include the Artificial Intelligence Act, GDPR, and DORA. The implementation of these acts shows that the EU takes a risk-based approach and allows innovations to continue despite certain requirements. Nevertheless, the effectiveness of the framework requires regular implementation, cooperation among member states, and development of technical expertise within supervisory authorities (European Commission, 2021; European Union, 2022; European Banking Authority [EBA], 2021).

In the broader picture, it can be said that Bulgaria represents a country in which financial systems undergo significant transformations and face new significant challenges. In recent years, the expansion of the digital banking services and fintech companies show positive tendencies related to the modernization of the sector. At the same time, certain limitations and barriers can also be identified, including lack of technological and skill resources, as well as limited institutional capacity (Bulgarian National Bank [BNB], 2024; European Commission, 2024).

Based on the summary presented in this paper, one of the main implications concerns the nature of digitalization and its influence on banks. It is shown that this process affects not only technology but the organization and the institution itself. Consequently, there is a need to implement a more holistic strategy, based not only on technology but data and customer needs. From the policy-maker's perspective, one of the major implications is related to the importance of regulation and the need to balance risks and innovation. There is a need to establish appropriate regulatory framework and ensure that regulators take into account the speed and pace of technological changes in order to prevent the risks of innovations without creating a barrier for new innovations in emerging markets.

In conclusion, it is essential to note that the further development of banking will depend on the successful digital transformation and management of new risks and challenges. The institutions that succeed in this regard will have greater chances to compete in a constantly evolving financial market.

References

- Annual FinTech Report 2022 - Fintech Bulgaria.* (2022, December 15). Fintech Bulgaria. <https://fintechbulgaria.org/annual-fintech-report-2022/>
Bulgarian Fintech Association. (2022). *Annual fintech report.* <https://fintechbulgaria.org>

- Bulgaria - Individuals using the internet for internet banking - 2026 Data 2027 Forecast 2010-2025 Historical. (2026). Tradingeconomics.com. <https://tradingeconomics.com/bulgaria/individuals-using-the-internet-for-internet-banking-eurostat-data.html>
- Bank for International Settlements. (2018). *Basel Committee on Banking Supervision Sound Practices Implications of fintech developments for banks and bank supervisors*. <https://www.bis.org/bcbs/publ/d431.pdf>
- Bank for International Settlements. Broeders, D., & Prenio, J. (2018). *Innovative technology in financial supervision (suptech) -the experience of early users*. <https://www.bis.org/fsi/publ/insights9.pdf>
- BEA announces the 8th edition of “PASSPORT 2025 of the e-commerce industry in Bulgaria” - Ecommerce Europe. (2025, December 12). Ecommerce Europe -. <https://ecommerce-europe.eu/news-item/bea-announces-the-8th-edition-of-passport-2025-of-the-e-commerce-industry-in-bulgaria/?utm>
- Bulgarian National Bank. (2024). *Annual report 2024*. <https://www.bnb.bg> and https://www.bnb.bg/bnbweb/groups/public/documents/bnb_publication/annual_report_2024_en.pdf
- Economic.bg. (2024, March 25). *Where does Bulgaria stand with regards to mobile payments?* Economic.bg; Brand Media Bulgaria EOOD. <https://www.economic.bg/en/a/view/where-does-bulgaria-stand-with-regards-to-mobile-payments?utm>
- European Banking Authority. (2021). *Report on machine learning in credit institutions*. In *EBA Discussion paper on machine learnings for IRB models*. https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Reports/2021/1015482/Report%20on%20machine%20learning%20in%20credit%20institutions.pdf
- European Central Bank. (2024). Study on the payment attitudes of consumers in the euro area 2024. *European Central Bank*. <https://doi.org/10.2866/9860161>
- European Central Bank. (2023). *Financial stability review*. <https://www.ecb.europa.eu/pub/pdf/fsr/ecb.fsr202311~bfe9d7c565.en.pdf>
- European Commission. (2024, July 2). *Digital Decade 2024: Country reports*. Shaping Europe’s Digital Future. <https://digital-strategy.ec.europa.eu/en/library/digital-decade-2024-country-reports>
- European Commission. (2021). *Proposal for a Regulation laying down harmonised rules on artificial intelligence | Shaping Europe’s digital future*. European Commission. <https://digital-strategy.ec.europa.eu/en/library/proposal-regulation-laying-down-harmonised-rules-artificial-intelligence>
- European Parliament. (2025, February 19). *EU AI Act: First Regulation on Artificial Intelligence*. European Parliament. <https://www.europarl.europa.eu/topics/en/article/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence>
- European Parliament. (2024). *EU Artificial Intelligence Act overview*. <https://www.europarl.europa.eu>
- European Parliament. (2024). *EU Artificial Intelligence Act: First regulation on artificial intelligence*. <https://www.europarl.europa.eu/topics/en/article/20230601STO93804>
- Eurostat (2026). Europa.eu. *Individuals using the internet for internet banking* <https://ec.europa.eu/eurostat/databrowser/view/tin00099/default/bar?lang=en&utm>
- European Union. (2022). *Digital Operational Resilience Act (DORA)*. <https://eur-lex.europa.eu>
- Financial Inclusion | World Bank Group. (2025). Worldbank.org. <https://www.worldbank.org/ext/en/topic/financial-sector/financial-inclusion>
- Financial Stability Board. (2017, November). *Artificial intelligence and machine learning in financial services Market developments and financial stability implications*. <https://www.fsb.org/uploads/P011117.pdf>
- Fonseca, A., & Rodrigues, L. F. (2022). *The Impact of the Covid-19 Pandemic on the Digital Transformation in the Banking Sector in Portugal*. AIS Electronic Library (AISeL). <https://aisel.aisnet.org/capsi2022/42/>
- ICT usage in households and by individuals - 2025. (2025). NSI - National Statistical Institute. <https://www.nsi.bg/en/press-release/ict-usage-in-households-and-by-individuals-8878?utm>
- Strat, V., Radev, D., Pele, D. T., Chinie, C., Grosu, F., Darie, F. C., Mare, C., Damian, V., & Cooita, I. (2024). *FiTech Report for Romania & Bulgaria* (2023rd ed.). Editura ASE. <https://ssrn.com/abstract=4821258>
- World Bank (2022). The Little Data Book on Financial Inclusion 2022. <https://openknowledge.worldbank.org/entities/publication/4be9972a-3b1d-5db8-8534-6a885e7bb7bb>
- Zetzsche, D. A., Arner, D. W., Buckley, R. P., & Tang, B. (2020, February 1). *Artificial Intelligence in Finance: Putting the Human in the Loop*. Papers.ssrn.com. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3531711

BALANCING INNOVATION AND REGULATION: THE EU AI ACT’S RISK-BASED APPROACH

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Abstract

This article analyses the regulatory framework established by the EU AI Act and its risk-based approach as the primary mechanism for governing artificial intelligence in the European Union. Since its adoption in 2024, the EU AI Act has generated sustained debate regarding the adequacy of its classification system, the breadth of its compliance obligations, and the institutional capacity required for enforcement. The progressive elaboration of the framework reveals two key developments: the delineation of prohibited practices and high-risk categories, and the convergence of AI regulation with fundamental rights standards. These developments mark a shift from the fragmented and predominantly self-regulatory landscape of the pre-Regulation period. This article examines how the Act balances the imperatives of technological innovation with the need for legal certainty and rights protection, through a study of its core provisions, the guidelines issued by European institutions, and the positions taken by key stakeholders.

Keywords: EU AI Act, risk-based approach, artificial intelligence regulation, fundamental rights, digital governance.

Introduction

Regulation (EU) 2024/1689, adopted on 13 June 2024, constitutes the first comprehensive horizontal legislative framework governing artificial intelligence as a distinct technology category.¹⁶⁸ The Regulation applies in phases: prohibitions on unacceptable-risk AI from 2 February 2025, obligations for general-purpose AI models from 2 August 2025, and full application of the high-risk regime from 2 August 2026. Its legal basis in Article 114 TFEU frames the instrument primarily as a market regulation measure, even though it pursues fundamental rights objectives. That dual character runs through the Act’s architecture and explains several of its structural choices, particularly the preference for ex ante conformity assessment over ex post judicial review.

¹⁶⁸European Parliament and Council of the European Union. (2024). Regulation (EU) 2024/1689. Official Journal of the European Union, L 2024/1689.

The Commission’s 2021 proposal drew its primary logic from the New Legislative Framework for product safety.¹⁶⁹ That model assigns mandatory technical requirements to the state, conformity assessment to economic operators or notified bodies, and post-market surveillance to national authorities. Applying it to AI systems required substantial adaptation: AI is dynamic, updateable software whose behaviour can change materially after deployment. The final text retains the NLF structure and layers onto it AI-specific obligations including post-market monitoring duties, automatic logging requirements, and mandatory human oversight provisions.

Prior to the Act, EU-level AI governance relied principally on voluntary instruments. The most significant was the Ethics Guidelines for Trustworthy AI published in April 2019 by the High-Level Expert Group on Artificial Intelligence.¹⁷⁰ The Guidelines articulated seven requirements for trustworthy AI: human agency and oversight; technical robustness and safety; privacy and data governance; transparency; diversity, non-discrimination and fairness; societal and environmental wellbeing; and accountability. They carried no legal force. Industry actors endorsed the Guidelines freely because endorsement cost nothing. The Commission’s 2020 White Paper acknowledged this limitation and proposed moving toward binding rules.¹⁷¹ The 2021 proposal adopted a horizontal approach covering AI across all sectors, marking the departure from voluntary governance that this article identifies as a shift from a fragmented and predominantly self-regulatory landscape.

Early systematic analysis of the 2021 Commission proposal identified the list-based approach to high-risk classification as the proposal’s central structural choice: rather than defining high-risk AI by general criteria, the proposal attached high-risk status to specific application contexts listed in Annex III.¹⁷² This approach prioritises legal certainty over regulatory completeness. A list is predictable, but it cannot capture application contexts that legislators failed to anticipate. Scholarship on algorithmic accountability under the GDPR had already identified the structural limits of transparency-based regulation as a rights-protection mechanism: disclosure of AI decision-making to affected individuals does not translate into meaningful contestation unless the disclosure is intelligible, timely, and actionable.¹⁷³ Research on ethics-based auditing frameworks for automated decision-making systems concludes that effective auditing requires simultaneous access to training data, model architecture, and deployment context. The Act’s technical documentation requirements for high-risk systems create the documentary preconditions for audit, but whether national surveillance authorities possess the capacity to exploit those preconditions is a separate institutional question.¹⁷⁴

Comparative Analysis

The Act establishes a four-tier risk classification pyramid. At the apex sit prohibited AI practices under Article 5, constituting a categorical exclusion from the market on grounds of incompatibility with EU values. Below these sit high-risk AI systems under Chapter III, subject to comprehensive ex ante and ex post compliance obligations. Below those sit limited-risk

¹⁶⁹European Commission. (2021). COM(2021) 206 final. The New Legislative Framework model is described in the Commission’s Blue Guide on the Implementation of EU Product Rules (2022).

¹⁷⁰High-Level Expert Group on Artificial Intelligence. (2019). Ethics guidelines for trustworthy AI. European Commission.

¹⁷¹European Commission. (2020). White paper on artificial intelligence: A European approach to excellence and trust. COM(2020) 65 final.

¹⁷²Veale, M., & Borgesius, F. Z. (2021). Demystifying the draft EU Artificial Intelligence Act. *Computer Law Review International*, 22(4), 97-112.

¹⁷³Kaminski, M. E. (2019). The right to explanation, explained. *Berkeley Technology Law Journal*, 34(1), 189-218.

¹⁷⁴Mökander, J., Morley, J., Taddeo, M., & Floridi, L. (2021). Ethics-based auditing of automated decision-making systems. *Science and Engineering Ethics*, 27(4), Article 44.

systems under Article 50, subject to transparency obligations. At the base sit minimal-risk systems, subject only to voluntary codes of conduct. A cross-cutting regime for general-purpose AI models in Articles 51 to 56, added in the final legislative phase, governs foundation models through separate, model-level obligations.¹⁷⁵

The classification of a system as high-risk operates through two parallel tracks. Annex I covers AI systems functioning as safety components of products already regulated under EU harmonisation legislation. Annex III covers stand-alone AI applications in eight sensitive domains: biometric identification; critical infrastructure management; education and vocational training; employment and worker management; access to essential services and benefits; law enforcement; migration and border control; and the administration of justice. The Annex III list is both the Act’s most important provision and its most contestable design choice. The list is definitive: a system either appears in Annex III or it does not carry high-risk status.¹⁷⁶ The Commission holds delegated power to update Annex III, but that process operates slowly relative to the pace of AI deployment. A further structural tension arises from the Act’s treatment of risk as a property of systems rather than of deployments. The same AI system deployed in two different contexts can produce radically different risk profiles, yet the foundational classification remains fixed at the product level.¹⁷⁷

Article 5’s prohibition catalogue maps directly onto Charter provisions. The prohibition on subliminal manipulation and exploitation of individual vulnerabilities protects human dignity under Article 1 and the right to integrity of the person under Article 3.¹⁷⁸ The prohibition on social scoring by public authorities engages the prohibition of discrimination under Article 21 and the right to an effective remedy under Article 47. The prohibition on real-time biometric identification in publicly accessible spaces for law enforcement engages human dignity, privacy under Article 7, data protection under Article 8, and freedom of movement under Article 45. These Charter references appear in the recitals rather than the operative provisions, which means the proportionality assessment applicable to Article 5’s limited exceptions proceeds under the Act’s own terms rather than under Charter methodology.

The Fundamental Rights Impact Assessment obligation under Article 27 requires deployers who are bodies governed by public law, or private bodies providing public services, to assess the impact of their high-risk AI deployment on fundamental rights before putting the system into operation. This obligation is functionally similar to the data protection impact assessment under Article 35 GDPR,¹⁷⁹ and the Commission indicated during the legislative process that operators subject to both may combine them into a single assessment where subject matter overlaps. Impact assessment obligations tend to function as procedural compliance requirements rather than substantive rights-protection mechanisms unless they generate enforceable outcomes.¹⁸⁰ The Act does not require deployers to cease deployment where a FRIA identifies a fundamental rights concern. It requires documentation, identification of mitigation measures, and registration. The substantive outcome depends on post-deployment

¹⁷⁵European Parliament and Council of the European Union. (2024). Regulation (EU) 2024/1689, Articles 5, Chapter III, Article 50, and Articles 51-56 respectively.

¹⁷⁶Veale, M., & Borgesius, F. Z. (2021), p. 100.

¹⁷⁷Smuha, N. A. (2021). From a ‘race to AI’ to a ‘race to AI regulation’. *Law, Innovation and Technology*, 13(1), 57-84.

¹⁷⁸Charter Of Fundamental Rights Of The European Union (2000/C 364/01).

¹⁷⁹Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

¹⁸⁰Kaminski, M. E. (2019), p. 205; Wachter, S., Mittelstadt, B., & Russell, C. (2017). Counterfactual explanations without opening the black box. *Harvard Journal of Law and Technology*, 31(2), 841-887.

monitoring and the willingness of national competent authorities to use their market surveillance powers.

AI systems trained on historical data reproduce historical inequalities because those inequalities are encoded in the data-generating processes that produce the training corpus.¹⁸¹ The Act’s data governance requirements under Article 10 require training data to be relevant, sufficiently representative, and free of errors to the extent possible. The qualifier acknowledges that perfect representativeness is unattainable. It does not resolve the prior question of whether representativeness of historical data is a meaningful goal when the historical baseline is itself discriminatory.

The GPAI regime distinguishes between models in general and models posing systemic risk. All GPAI providers must maintain technical documentation, comply with EU copyright law in their use of training data, and publish training data summaries. Models with systemic risk, defined by reference to a training compute threshold of floating-point operations alongside qualitative capability indicators, carry additional obligations: evaluation against standardised benchmarks, adversarial testing, incident reporting to the European AI Office, and energy efficiency disclosure. The compute threshold attracted immediate criticism as a blunt proxy for capability that will become progressively less accurate as training efficiency improves through algorithmic advances rather than raw compute scaling. The final text preserves commercial confidentiality while establishing a framework for enhanced oversight of the most capable models in deployment.

Enforcement distributes across three levels: the European AI Office at supranational level,¹⁸² national competent authorities at Member State level, and a Scientific Panel of independent experts advising the AI Office on GPAI matters. National competent authorities hold primary market surveillance responsibility for AI systems other than GPAI models. Administrative penalties for the most serious violations reach 35 million euros or 7% of global annual turnover, whichever is higher.¹⁸³ For most high-risk Annex III systems, the Act permits self-certification: providers conduct their own conformity assessment provided they maintain the necessary quality management system and technical documentation. Third-party assessment by notified bodies is mandated only for AI systems that are safety components of products already subject to third-party assessment under sectoral legislation. The self-assessment model has been criticised as inadequate for systems whose complexity, opacity, and dynamism make credible internal assessment difficult. Consistent enforcement across twenty-seven Member States with different regulatory traditions, resource levels, and enforcement cultures proved difficult to achieve under the GDPR. Technical capacity is the binding constraint on effective AI auditing: assessing whether an AI system meets requirements for accuracy, robustness, non-discrimination, and traceability requires expertise that most national competent authorities do not yet possess.¹⁸⁴

The Act provides three primary instruments for managing the tension between compliance costs and innovation incentives. Regulatory sandboxes under Articles 57 to 63 allow providers to develop, test, and validate AI systems in a supervised environment before market launch. Small and medium-sized enterprises and start-ups receive priority access and pay reduced conformity assessment fees. The open-source exemption in Article 53(2) exempts most GPAI model providers releasing under open-source licences from GPAI obligations, except where

¹⁸¹Noble, S. U. (2018). *Algorithms of oppression*. New York University Press; Crawford, K. (2018). *Atlas of AI*. Yale University Press.

¹⁸²The European AI Office was established by Commission Decision C(2024) 390 of 24 January 2024.

¹⁸³Artificial Intelligence Act (Regulation (EU) 2024/1689), Official Journal version of 13 June 2024, art 99.

¹⁸⁴Mökander et al. (2021), p. 12. On GDPR enforcement disparities see Laux, J., Wachter, S., & Mittelstadt, B. (2021). Taming the few. *Oxford Journal of Legal Studies*, 41(2), 536-568.

the model presents systemic risk. Critics argue that the exemption creates a structural asymmetry: a commercial operator can release a powerful model under an open-source licence to avoid obligations that apply to a proprietary-licence competitor, and the Act provides no criteria for distinguishing genuine open-source releases from commercial exploitation of the exemption. The Brussels Effect framework suggests that if the Act’s standards diffuse globally, European operators gain no competitive disadvantage because compliance becomes a shared infrastructure cost; if the standards remain confined to the EU market, European operators bear a cost that competitors in less regulated markets do not.¹⁸⁵

Synthesis and Takeaways

The EU AI Act produces a binding, structured, and rights-grounded framework for AI governance that the pre-Regulation landscape did not contain. The risk-based approach manages regulatory costs by targeting comprehensive obligations at applications with the highest harm potential and imposes lighter requirements on lower-risk systems. The framework’s grounding in the Charter of Fundamental Rights connects technical AI governance to the Union’s constitutional framework in a way that the HLEG Ethics Guidelines never could, given their voluntary character.

The framework’s limitations are structural. The list-based classification system in Annex III produces legal certainty at the cost of regulatory completeness: application contexts that generate significant harm but fall outside the list carry no high-risk obligations. The delegated power to update Annex III provides a correction mechanism but operates too slowly relative to the pace of AI capability development. The self-assessment model for conformity in most high-risk categories places compliance verification in the hands of the party with the strongest financial interest in a favourable outcome. The human oversight requirement in Article 14 is a substantive commitment the Act does not operationalise: AI systems deployed at scale in credit scoring, social benefit allocation, or content moderation process decisions faster than human review can follow, and the Act provides no definition of what effective oversight means in high-volume contexts. The FRIA obligation’s restriction to public-sector and public-function deployers leaves private-sector deployers in most Annex III domains outside the assessment requirement.

Three forward-looking challenges will determine whether the Act’s regulatory design achieves its stated objectives. Enforcement capacity is the first. National competent authorities must develop the technical expertise to audit complex AI systems and assess conformity claims in deployments that generate no obvious incident trace. The Act creates the documentary record for audit but does not mandate the public investment required to read it accurately. Standards-setting is the second. The Act delegates the technical content of most high-risk compliance requirements to harmonised standards developed by European Standards Organisations.¹⁸⁶ The normative content of the Act’s fundamental rights commitments will filter through a standards process dominated by industry participants. Civil society organisations and academic researchers participate unevenly. The GPAI trajectory is the third. The compute threshold for systemic risk classification was calibrated to the most powerful models at the time of drafting. Training efficiency improvements through architectural advances will erode the threshold’s accuracy. The Commission holds authority to revise it by delegated act, but the procedural requirements for such designations are substantial. The gap between the systemic risk regime and the actual risk profile of leading AI systems may widen before it narrows.

¹⁸⁵Bradford, A. (2020). *The Brussels effect: How the European Union rules the world*. Oxford University Press.

¹⁸⁶CEN and CENELEC hold the primary standardisation mandates. The Commission issued a standardisation request in May 2023 covering high-risk AI requirements under Annex III.

The EU AI Act has opened the regulatory file on artificial intelligence governance at the legislative level. The risk-based architecture, the prohibited practices catalogue, the high-risk compliance regime, the GPAI provisions, and the enforcement framework collectively represent a departure from the voluntary governance model that preceded the Regulation. Whether the departure is sufficient to address the governance challenge depends on institutional investment that the Act enables but cannot compel. The enforcement record over the period to 2030 will be the primary empirical basis for assessing whether the regulatory design has achieved its objectives.

References

- Bradford, A. (2020). *The Brussels effect: How the European Union rules the world*. Oxford University Press.
- Crawford, K. (2021). *Atlas of AI: Power, politics, and the planetary costs of artificial intelligence*. Yale University Press.
- European Commission. (2020). *White paper on artificial intelligence: A European approach to excellence and trust (COM(2020) 65 final)*. Publications Office of the European Union.
- European Commission. (2021). *Proposal for a regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) (COM(2021) 206 final)*. Publications Office of the European Union.
- European Parliament and Council of the European Union. (2024). *Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act)*. Official Journal of the European Union, L 2024/1689.
- High-Level Expert Group on Artificial Intelligence. (2019). *Ethics guidelines for trustworthy AI*. European Commission.
- Kaminski, M. E. (2019). The right to explanation, explained. *Berkeley Technology Law Journal*, 34(1), 189-218.
- Mökander, J., Morley, J., Taddeo, M., & Floridi, L. (2021). Ethics-based auditing of automated decision-making systems: Nature, scope, and limitations. *Science and Engineering Ethics*, 27(4), Article 44.
- Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. New York University Press.
- Smuha, N. A. (2021). From a ‘race to AI’ to a ‘race to AI regulation’: Regulatory competition for artificial intelligence. *Law, Innovation and Technology*, 13(1), 57-84.
- Veale, M., & Borgesius, F. Z. (2021). Demystifying the draft EU Artificial Intelligence Act. *Computer Law Review International*, 22(4), 97-112.
- Wachter, S., Mittelstadt, B., & Russell, C. (2017). Counterfactual explanations without opening the black box: Automated decisions and the GDPR. *Harvard Journal of Law and Technology*, 31(2), 841-887.

INTERNATIONAL SPORTS ARBITRATION: THE EVOLUTION OF THE COURT OF ARBITRATION FOR SPORT AND THE FORMATION OF LEX SPORTIVA

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Abstract

This article examines arbitration as the primary mechanism for resolving disputes in international sport. Since the Court of Arbitration for Sport (CAS) was founded in 1984, the institution has become a focal point for debates about institutional independence, procedural fairness, and the expanding range of disputes brought before it. The consolidation of CAS as the leading arbitral body has produced a substantial body of decisions that gave rise to lex sportiva, an autonomous body of sports law, and has drawn international sports governance into closer contact with fundamental human rights standards. Drawing on key CAS decisions and the regulatory frameworks of international sports bodies, this article traces that evolution from the disordered pre-CAS environment to the present institutional framework, and identifies the main challenges and likely future directions for the field.

Keywords: Sports arbitration, Court of Arbitration for Sport (CAS), alternative dispute resolution, lex sportiva, human rights.

1. Introduction

Sport today is one of the most profitable global industries. It generates complex legal relationships between athletes, national and international federations, sponsors, broadcasters, and governments. Disputes arising from those relationships need mechanisms that can deliver fast, expert, and enforceable decisions across borders. That is the basic problem CAS was designed to solve, and it is worth pausing on how inadequate the alternatives were before CAS existed.¹⁸⁷

Arbitration as a general mechanism for resolving disputes outside national courts is not new. Its modern legal foundation rests on the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards (1958)¹⁸⁸ and the UNCITRAL Model Law on International Commercial Arbitration (1985, revised 2006).¹⁸⁹ But sports arbitration is not simply commercial arbitration applied to sport. The stakes include the integrity of competition, the career rights of individual athletes, the regulatory authority of governing bodies, and a broader public interest in fair play. No purely commercial arbitration model, and certainly no domestic court system, was equipped to handle that combination well.

CAS was established in 1984. Initially it sat inside the IOC structure, which raised serious legitimacy problems. The Swiss Federal Tribunal's 1993 decision in *Gundel v. FEI* forced a reckoning, and the structural reforms that followed, through the Paris Agreement of 1994, set CAS on a more independent institutional footing. Today CAS administers hundreds of cases annually through three divisions: the Ordinary Arbitration Division, the Appeals Arbitration Division, and the Ad Hoc Division, which was first deployed at the 1996 Atlanta Olympics and is designed to produce final awards within twenty-four hours during active competitions.

The accumulated jurisprudence of CAS has produced what scholars now call *lex sportiva*: a body of general principles and rules developed through CAS decisions that governs international sport regardless of which national legal system might otherwise apply.¹⁹⁰ Think of it as the sports law equivalent of *lex mercatoria* in commercial law. The analogy is imperfect, but the structural point holds: a transnational adjudicatory body, through consistent practice, builds a normative order that does not depend on any single state legislature.

2. Sports Dispute Resolution Before CAS

Before 1984, international sports disputes were resolved through a collection of internal federation mechanisms and, occasionally, domestic courts. Neither worked particularly well. Internal federation bodies were widely perceived as structurally partial to the interests of the federation itself, offering limited procedural guarantees and no meaningful appellate structure.¹⁹¹ Outcomes varied dramatically across sports and jurisdictions. An athlete suspended in one federation might have been cleared under the rules of another for precisely the same conduct.

Domestic courts were theoretically available, but rarely useful. National judges frequently declined jurisdiction over internal federation decisions on the basis of associational autonomy,

¹⁸⁷NAFZIGER, J.A.R., *International Sports Law*, 2nd ed., Transnational Publishers, 2004, 3.

¹⁸⁸Convention on the Recognition and Enforcement of Foreign Arbitral Awards, signed 10 June 1958, entry into force 7 June 1959, UN Treaty Series, vol. 330, 38.

¹⁸⁹United Nations Commission on International Trade Law, UNCITRAL Model Law on International Commercial Arbitration (1985, with amendments adopted in 2006), UN Doc A/40/17, annex I.

¹⁹⁰FOSTER, K., “Is There a Global Sports Law?”, *Entertainment and Sports Law Journal*, vol. 2, no. 1 (2003) 1–18, 3.

¹⁹¹FOSTER, K., *supra* n. 4, at 4.

holding that sporting bodies were entitled to regulate their own affairs.¹⁹² When courts did intervene, they applied divergent national legal standards that undermined the consistency essential to international competition. And litigation was slow. An athlete subject to a doping suspension could not wait two years for a final judgment; by then the competition would be over.

The problem was most acute in anti-doping enforcement. Before any centralised coordination existed, national anti-doping rules produced what commentators described as a patchwork of inconsistent sanctions, with athletes facing sharply different penalties for comparable violations depending on their sport, nationality, and who happened to be adjudicating.¹⁹³ The inconsistency was not merely inconvenient; it was a serious threat to the perceived fairness of international competition. That, combined with growing commercial pressure on the Olympic movement, provided the direct impetus for creating CAS.

3. The Establishment and Structural Evolution of CAS

3.1 The Founding Structure, Gundel, and the Paris Agreement

CAS was established in 1984 at the initiative of IOC President Juan Antonio Samaranch. The founding Statutes gave CAS jurisdiction to resolve “all disputes arising out of the practice or development of sport.”¹⁹⁴ The problem was structural: the IOC financed CAS, appointed all its arbitrators, and the IOC President held authority to modify the Statutes. For cases involving the IOC directly, that arrangement made the independence of the tribunal difficult to defend.

That changed in 1993. In *Gundel v. FEI*, the Swiss Federal Tribunal examined whether CAS was a sufficiently independent tribunal under Swiss private international law.¹⁹⁵ The Tribunal upheld the award on the facts, but its reasoning was pointed: the existing institutional links between CAS and the IOC were such that independence could not be guaranteed in cases involving the IOC as a party. That observation was effectively an ultimatum.

The response was the Paris Agreement of 1994. The International Council of Arbitration for Sport (ICAS) was created as an independent governing body, replacing the IOC in the administration of CAS.¹⁹⁶ ICAS, composed of twelve members with legal and sporting backgrounds, took over responsibility for appointing arbitrators, financing the institution, and revising the procedural rules. Funding came from contributions by the IOC, international federations, and national Olympic committees rather than the IOC alone. That restructuring was enough to satisfy the Swiss Federal Tribunal, which gave an unequivocal endorsement of CAS independence in *Lazutina v. IOC* a decade later.¹⁹⁷

The CAS Code of Sports-related Arbitration has been revised several times since 1994, most recently in 2021. Each revision has refined procedural standards, introduced expedited procedures, and extended the scope of CAS jurisdiction. The Ad Hoc Division, first used in Atlanta in 1996, operates under a twenty-four-hour deadline and has become indispensable for eligibility and doping disputes during active competitions. By 2025, CAS awards are

¹⁹²NAFZIGER, J.A.R., *supra* n. 3, at 7.

¹⁹³HOULIHAN, B., *supra* n. 5, at 18.

¹⁹⁴Statutes of the Court of Arbitration for Sport, adopted 30 June 1984, Art. 1.

¹⁹⁵Swiss Federal Tribunal, 15 March 1993, *G. v. Fédération Equestre Internationale*, BGE/ATF 119 II 271.

¹⁹⁶Agreement relating to the Constitution of the International Council of Arbitration for Sport (ICAS), signed November 1994. See also CAS Statutes (consolidated version, 2021), Arts. S4–S8.

¹⁹⁷Swiss Federal Tribunal, 27 May 2003, *Lazutina & Danilova v. IOC & FIS*, ATF 129 III 445.

recognised and enforced across most jurisdictions, and annulment proceedings before the Swiss Federal Tribunal under Article 190 of the Swiss Private International Law Act (PILA) provide a meaningful supervisory check without dismantling CAS’s operational autonomy.

4. Lex Sportiva: Concept, Development, and Main Substantive Areas

4.1 Theoretical Foundations and Anti-Doping

The term *lex sportiva*, first used systematically by Blackshaw (2003)¹⁹⁸ and developed further by Foster (2006)¹⁹⁹ and Nafziger (2004),²⁰⁰ designates the body of general principles and rules developed through CAS jurisprudence that governs international sport independently of any national legal order. The structural analogy to *lex mercatoria* in commercial law is useful here: both are autonomous normative orders produced through the consistent practice of transnational adjudicatory bodies, not through state legislation.

The theoretical legitimacy of *lex sportiva* rests on a specific choice-of-law methodology. Under Article R58 of the CAS Code, panels apply the rules of the relevant sports body and, where those rules are silent, the law of the country where the federation is domiciled or such other law as the panel deems appropriate.²⁰¹ In practice, panels frequently invoke general principles of law like proportionality, natural justice, good faith, legitimate expectations, as autonomous normative sources. Those principles are not formally binding as precedent under CAS procedural rules, but they are routinely applied by subsequent panels. The result, over decades and hundreds of decisions, is something that functions like a common law system for international sport (which is not the framing CAS itself would use, but it captures the practical dynamic).

Anti-doping is the area where *lex sportiva* has developed most visibly. The World Anti-Doping Code (WADC), first adopted in 2003 and revised in 2009, 2015, and 2021, provides the primary instrument of anti-doping governance internationally.²⁰² CAS has interpreted and applied the WADC extensively, and its decisions have shaped the Code’s practical operation at least as much as its text.

WADA v. Contador (CAS 2011/A/2384) is the decision most often cited in this context.²⁰³ Alberto Contador tested positive for clenbuterol during the 2010 Tour de France at a concentration of 50 picograms per millilitre, a quantity that expert witnesses described as consistent with contaminated food rather than deliberate use. The panel, after extended analysis of scientific evidence, found that Contador had not met the standard of proof required for a food contamination defence under WADC Article 2.1 and imposed a two-year suspension. The case became a defining authority on strict liability in doping cases and on the burden placed on athletes who assert exculpatory defences. CAS has also developed a doctrine of proportionality in sanction decisions, recognising that mechanical application of mandatory periods can

¹⁹⁸BLACKSHAW, I., *Mediating Sports Disputes: National and International Perspectives*, T.M.C. Asser Press, 2003, 22.

¹⁹⁹FOSTER, K., “Lex Sportiva and Lex Ludica: The Court of Arbitration for Sport’s Jurisprudence”, *Entertainment and Sports Law Journal*, vol. 3, no. 2 (2006) 1–15, 4.

²⁰⁰NAFZIGER, J.A.R., *supra* n. 3, at 21.

²⁰¹Code of Sports-related Arbitration (2021 ed.), Art. R58. The provision directs panels to apply, in the first instance, the rules of the relevant federation and subsidiarily Swiss law or such other law as the panel deems appropriate.

²⁰²World Anti-Doping Agency, *World Anti-Doping Code*, WADA, 2021, Art. 2.1 (strict liability) and Art. 10 (sanctions).

²⁰³CAS, 6 February 2012, *World Anti-Doping Agency v. Alberto Contador Velasco & Real Federación Española de Ciclismo*, CAS 2011/A/2384 & 2386.

produce results incompatible with basic principles of justice,²⁰⁴ though panels have been reluctant to reduce mandatory minimums except in genuinely exceptional circumstances. The balance between uniformity, which the WADC explicitly prioritises, and equitable individualism is an ongoing tension in the jurisprudence.

A second substantive area concerns the status and transfer of athletes, primarily in football. *Webster v. Heart of Midlothian*²⁰⁵ and *Matuzalem v. Shakhtar Donetsk*²⁰⁶ addressed how compensation should be calculated when an athlete terminates a contract unilaterally outside a protected period. Both decisions generated principles subsequently incorporated into revised editions of the FIFA Regulations on the Status and Transfer of Players. CAS did not simply apply those Regulations as written; it developed the legal framework that now defines what they mean in contested cases. Match-fixing and betting fraud have generated a growing stream of cases as well. The jurisprudence has settled on a standard of proof described as “comfortable satisfaction,” lower than the criminal standard of beyond reasonable doubt but higher than the civil balance of probabilities, reflecting the seriousness of corruption allegations while acknowledging that direct evidence of match manipulation is rarely available.²⁰⁷

5. Procedural Fairness, Human Rights, and the Reform Agenda

5.1 Due Process and the Convergence with Human Rights Law

The procedural legitimacy of CAS is assessed against two main standards: Swiss private international law and, increasingly, the European Convention on Human Rights (ECHR). Article 6(1) ECHR, which guarantees the right to a fair and public hearing before an independent and impartial tribunal, has been invoked with growing frequency by athletes challenging CAS decisions, particularly in doping cases where the consequences are career-defining.²⁰⁸

The Swiss Federal Tribunal has held that the ECHR does not directly bind arbitral tribunals such as CAS, but has recognised that awards resulting from proceedings that fundamentally violate due process may be annulled under Article 190(2)(d) PILA on the ground that the right to be heard was infringed.²⁰⁹ That supervisory framework has pushed CAS to develop increasingly detailed procedural safeguards: the right to be heard, legal representation, the ability to examine and challenge evidence, and disclosure obligations for arbitrators with potential conflicts of interest.

Concerns about arbitrator independence have been persistent. Academics argue that the closed arbitrator list maintained by ICAS, on which sports federations have historically exercised disproportionate influence, creates structural conditions that favour federation interests.²¹⁰ The problem is compounded by the mandatory nature of CAS arbitration in most sports: athletes who want to compete internationally must contractually submit to CAS jurisdiction as a condition of eligibility. Whether consent of that kind qualifies as genuine consent in the relevant legal sense is an open question, and not one CAS itself is well-positioned to resolve.

²⁰⁴CAS, 12 July 2006, *Mariano Puerta v. International Tennis Federation*, CAS 2006/A/1025.

²⁰⁵CAS, 30 January 2008, *Andrew Webster v. Heart of Midlothian*, CAS 2007/A/1298.

²⁰⁶CAS, 19 May 2009, *Francelino da Silva Matuzalem v. Shakhtar Donetsk & FIFA*, CAS 2008/A/1519.

²⁰⁷McLAREN, R.H., *The McLaren Independent Investigation Report into Sochi Doping Allegations*, World Anti-Doping Agency, 2016.

²⁰⁸European Convention on Human Rights (ECHR), Art. 8.

²⁰⁹Swiss Federal Act on Private International Law of 18 December 1987 (PILA), SR 291, Art. 190(2)(d).

²¹⁰DUVAL, A. & VAN ROMPUY, B., “The Compatibility of Forced CAS Arbitration with EU Competition Law: Pechstein Reloaded”, T.M.C. Asser Research Paper, 2015-06, 15.

Arbitrators with genuine sports law expertise are inevitably drawn from a pool of practitioners who work closely with the sports industry. Structural impartiality and substantive expertise are, to some degree, in competition with each other in this context.

Perhaps the most significant development in sports arbitration over the past decade is the growing engagement of CAS with fundamental human rights norms. Historically, sports governing bodies asserted broad regulatory autonomy as private associations, and human rights law was treated as a matter for states, not sporting bodies. That position has eroded. The UN Guiding Principles on Business and Human Rights (UNGPs, 2011), endorsed by the UN Human Rights Council, articulate a framework under which business enterprises, including sports governing bodies, bear a responsibility to respect human rights.²¹¹ Major organisations including the IOC, FIFA, and World Athletics have adopted human rights policies aligned with the UNGPs, in varying degrees of specificity and commitment, and those policies increasingly inform CAS’s interpretive approach in cases with human rights dimensions.

Anti-doping testing implicates the right to bodily integrity and privacy protected under Article 8 ECHR. CAS has consistently held that the anti-doping framework represents a proportionate interference with those rights, given the public interest in competitive integrity and athlete health. The Whereabouts system, which requires athletes in registered testing pools to provide advance location information for out-of-competition testing, attracted specific scrutiny in *WADA v. IAAF & Kenteris & Thanou* (CAS 2004/A/607).²¹² The panel confirmed the system’s compatibility with fundamental rights but noted that proportionality requires safeguards against arbitrary or disproportionate application. That qualification is not cosmetic; subsequent disputes have tested precisely where those limits lie.

The most prominent human rights controversy in recent CAS jurisprudence involves World Athletics’ regulations on female eligibility, specifically the testosterone limits applied to athletes with Differences of Sex Development (DSD) competing in certain middle-distance events. In *Semenya v. IAAF* (CAS 2018/O/5794), the panel acknowledged that the DSD Regulations were discriminatory and would cause Semenya harm, but upheld them as a necessary and proportionate means of preserving competitive integrity in female athletics.²¹³ The decision was heavily criticised. Critics argued, not unreasonably, that it subordinated fundamental human dignity and bodily integrity to competitive management concerns.

The Swiss Federal Tribunal initially annulled the award, finding that its enforcement would violate fundamental principles of Swiss public policy.²¹⁴ That was an unusual intervention. The European Court of Human Rights then ruled in *Semenya v. Switzerland* (Application no. 10934/21, 2023) that Switzerland had violated Articles 13 and 14 ECHR by failing to provide an effective domestic remedy.²¹⁵ The case does not have a tidy resolution. What it does illustrate is that international sports arbitration now sits within a broader network of human rights adjudication, and CAS awards can no longer be treated as the final word on matters that engage fundamental rights.

Beyond anti-doping and eligibility, human rights considerations have entered CAS jurisprudence on athlete labour rights. The relationship between professional athletes and their

²¹¹United Nations Human Rights Council, Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework, UN Doc A/HRC/17/31, 2011, Principle 11.

²¹²CAS, 11 August 2004, *WADA v. IAAF & Konstantinos Kenteris & Katerina Thanou*, CAS 2004/A/607.

²¹³CAS, 30 April 2019, *Mokgadi Caster Semenya v. International Association of Athletics Federations*, CAS 2018/O/5794, para. 607.

²¹⁴Swiss Federal Tribunal, 25 August 2020, *Caster Semenya v. World Athletics*, ATF 9A.113/2019.

²¹⁵ECtHR, 11 July 2023, *Semenya v. Switzerland*, no. 10934/21, ECHR 2023, paras. 215–227.

clubs or federations raises questions about freedom of contract, protection against forced labour, and the right to pursue one’s profession. CAS panels have applied those principles, with varying degrees of directness, in transfer disputes, contract termination cases, and disciplinary proceedings. The integration of human rights due diligence into federation regulatory frameworks, driven partly by stakeholder pressure and partly by the evolving interpretive practice of CAS, is one of the more active areas of current development in sports law.

CAS has attracted serious and substantive criticism from legal scholars, athlete associations, and national courts. Three categories stand out. First, the voluntary nature of consent to CAS jurisdiction remains contested. The Court of Justice of the European Union addressed this directly in *Pechstein v. ISU* (Case C-124/21 P).²¹⁶ The question was whether mandatory submission to CAS arbitration as a condition of athletic participation is compatible with EU competition law and the fundamental right of access to national courts. The CJEU ultimately held that CAS arbitration clauses are not per se incompatible with EU law but emphasised that CAS proceedings must satisfy standards of independence and impartiality equivalent to those applicable in national courts. That framing places ongoing pressure on ICAS to continue institutional reform. It is also, frankly, a standard that CAS currently meets imperfectly.

Second, the composition of the CAS arbitrator pool has been criticised as insufficiently representative of the global athlete community. The pool has historically been dominated by lawyers from Western European jurisdictions, which raises legitimate questions about cultural bias and the accessibility of CAS proceedings to parties from outside that context.²¹⁷ Efforts to diversify the pool and expand legal aid provisions are underway but have not produced structural change at the level the criticism demands. Third, national courts in Germany, Switzerland, and Belgium have shown increasing willingness to scrutinise CAS awards for compatibility with mandatory national law and public policy. The Semenya proceedings before the Swiss Federal Tribunal are the clearest example, but they are not isolated. The broader trend reflects a real tension between the aspirations of transnational sports governance and the regulatory authority that sovereign states retain over fundamental rights.

6. Future Perspectives and Conclusion

Several developments are likely to shape the trajectory of international sports arbitration over the next decade. Esports present a structural challenge. Competitive video gaming is now commercially significant at scale, but the governance architecture is fundamentally different from traditional sport. Publishers rather than non-profit associations hold ultimate regulatory authority. There is no CAS-equivalent for esports disputes, and the existing patchwork of publisher terms of service and platform-specific adjudication mechanisms produces exactly the kind of inconsistency that CAS was created to address in the 1980s. Whether the established sports arbitration model can be extended to esports, and who has the institutional standing to build it, are open questions.

Digital transformation and the use of artificial intelligence in anti-doping and integrity monitoring will generate new categories of dispute. The admissibility and evidentiary weight of AI-generated findings, the data protection implications of biological passport programmes, and the due process requirements that should apply when algorithmic systems generate initial suspicion are questions CAS will need to address without ready precedent. The applicable legal frameworks are still being developed at the national and international levels, which means CAS will be working in genuine normative uncertainty.

²¹⁶ECJ, 21 December 2023, *International Skating Union v European Commission* no. Case C-124/21 P.

²¹⁷DUVAL, A. & VAN ROMPUY, B., *supra* n. 26, at 22.

The post-Pechstein European legal landscape suggests that absolute autonomy from national judicial oversight is no longer viable for CAS. European Union competition law, the ECHR, and the evolving jurisprudence of the Swiss Federal Tribunal collectively constrain how far CAS can insulate its decisions from external review. Adapting to that constraint without losing the efficiency and consistency that make sports arbitration valuable is the central institutional challenge for ICAS in the coming years.

The development of CAS from a structurally compromised internal body of the IOC into a genuinely independent international arbitral institution represents a substantial achievement in the history of dispute resolution. The body of jurisprudence it has produced, and the *lex sportiva* that has emerged from that jurisprudence, has brought coherence and predictability to international sports governance in ways that no prior mechanism could have achieved.

But the institution is under pressure in ways that cannot be dismissed. Questions about the voluntary nature of arbitration agreements, the structural independence of arbitrators, the representativeness of the arbitrator pool, and the compatibility of CAS proceedings with fundamental rights are all serious. The Semenya litigation and the Pechstein CJEU decision have made clear that CAS operates within a larger legal environment that will not simply defer to sporting autonomy.

The future of *lex sportiva* is not in doubt as a concept; too much has been built on it for that. What remains genuinely open is whether CAS and ICAS have the institutional will to reform ahead of compulsion. The record is mixed. Progress on transparency has been meaningful whereas the progress on independence and diversity has been slower. The pressure from courts, athletes, and human rights bodies is increasing. At this stage, the more important question is not whether *lex sportiva* will survive, but what values it will carry forward.

References

I. Primary Sources: International Instruments and Legislation

Convention on the Recognition and Enforcement of Foreign Arbitral Awards, signed 10 June 1958, entry into force 7 June 1959, UN Treaty Series, vol. 330, 38.

Convention for the Protection of Human Rights and Fundamental Freedoms, Nov. 4, 1950, 213 U.N.T.S. 221, E.T.S. No. 5.

Code of Sports-related Arbitration (2020 ed.), Court of Arbitration for Sport.

Swiss Federal Act on Private International Law of 18 December 1987 (PILA), SR 291.

United Nations Commission on International Trade Law, UNCITRAL Model Law on International Commercial Arbitration (1985, with amendments adopted in 2006), UN Doc A/40/17, annex I.

United Nations Human Rights Council, Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework, UN Doc A/HRC/17/31, 2011.

World Anti-Doping Agency, World Anti-Doping Code, WADA, 2021.

II. Primary Sources: Case Law

CAS, 11 August 2004, WADA v. IAAF & Kenteris & Thanou, CAS 2004/A/607.

CAS, 12 July 2006, Puerta v. International Tennis Federation, CAS 2006/A/1025.

CAS, 30 January 2008, Webster v. Heart of Midlothian, CAS 2007/A/1298.

CAS, 19 May 2009, Matuzalem v. Shakhtar Donetsk & FIFA, CAS 2008/A/1519.

CAS, 6 February 2012, WADA v. Contador & Real Federación Española de Ciclismo, CAS 2011/A/2384 & 2386.

CAS, 30 April 2019, Semenya v. International Association of Athletics Federations, CAS 2018/O/5794.

ECtHR, 11 July 2023, Semenya v. Switzerland, no. 10934/21, ECHR 2023.

Swiss Federal Tribunal, 15 March 1993, G. v. Fédération Equestre Internationale, BGE/ATF 119 II 271.

Swiss Federal Tribunal, 27 May 2003, Lazutina & Danilova v. IOC & FIS, ATF 129 III 445.

Swiss Federal Tribunal, 25 August 2020, Semenya v. World Athletics, ATF 9A.113/2019.

III. Secondary Sources

BLACKSHAW, I., *Mediating Sports Disputes: National and International Perspectives*, T.M.C. Asser Press, 2003.

- DUVAL, A. & VAN ROMPUY, B., “The Compatibility of Forced CAS Arbitration with EU Competition Law: Pechstein Reloaded”, T.M.C. Asser Research Paper, 2015-06.
- FOSTER, K., “Is There a Global Sports Law?”, *Entertainment and Sports Law Journal*, vol. 2, no. 1 (2003) 1–18.
- FOSTER, K., “Lex Sportiva and Lex Ludica: The Court of Arbitration for Sport’s Jurisprudence”, *Entertainment and Sports Law Journal*, vol. 3, no. 2 (2006) 1–15.
- HOULIHAN, B., *Dying to Win: Doping in Sport and the Development of Anti-Doping Policy*, 2nd ed., Council of Europe Publishing, 2002.
- McLAREN, R.H., *The McLaren Independent Investigation Report into Sochi Doping Allegations*, World Anti-Doping Agency, 2016.
- NAFZIGER, J.A.R., *International Sports Law*, 2nd ed., Transnational Publishers, 2004.

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