“FAN S. NOLI” UNIVERSITY
REGIONAL COUNCIL OF KORÇË

THE INTERNATIONAL SCIENTIFIC CONFERENCE

“Regional Development in Times of Change: Integrating Challenges and Opportunities for a Sustainable Future”

(BOOK OF PROCEEDINGS)

(November 21-22, 2025)

"Fan S. Noli" University
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Regional Council of Korçë,

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Integrating Challenges and Opportunities for a Sustainable Future

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COLLABORATIVE GOVERNANCE IN CROSS BORDER REGIONS AND HIGHER EDUCATION INSTITUTIONS

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Abstract
This paper examines collaborative governance in cross border regions, focusing on how diverse stakeholders: Higher Education Institutions, governmental, non-governmental, and private, engage in joint decision-making to address shared challenges and opportunities. It synthesizes theoretical frameworks such as multi-level governance, collaborative governance regimes, and vernacular borderwork, highlighting the importance of trust, flexibility, and inclusivity. The paper identifies key challenges, including political tensions, legal barriers, and resource asymmetries, while outlining opportunities for innovation, funding, and regional integration. Drawing on comparative case vignettes, it illustrates how context-sensitive approaches can foster sustainable cooperation and concludes with recommendations for future research and policy development aimed at strengthening collaborative governance across borders. The paper presents good practices and the experience accumulated by the University Fan S. Noli of Korça, and its partners in the intensive, long-term, and highly constructive development of cross-border cooperation among universities, local governments, and other relevant stakeholders.

Keywords: *Cross border cooperation; collaborative governance; multi-level governance; policy design; regional integration, institutional frameworks, stakeholder engagement*

1. Introduction: A Conceptual Model of Cross border Collaboration

In general, cross border regions are living laboratories of governance innovation where public authorities, civil society, and businesses collaborate across administrative boundaries to deliver public value. While integration projects (e.g., at the European or macro-regional scale) have lowered many formal obstacles, heterogeneity in institutional capacity, legal frameworks, and political preferences persists. These differences heighten the transaction costs of cooperation but also create opportunities for policy learning and experimentation. This paper develops a conceptual synthesis of collaborative governance in cross border regions and distills practical lessons for policy and research.

1.1 Multi-Level Governance and Territorial Rescaling

Multi-level governance conceptualizes public authority as dispersed across vertically and horizontally interdependent arenas rather than concentrated within a single hierarchical state structure. In cross border regions, this implies that local and regional actors must concurrently align their strategies with national ministries, supranational institutions, and homologous entities across the border. The growing complexity of these interactions has been shaped by processes of territorial rescaling, through which novel governance arenas, such as euroregions, cross border metropolitan areas, and EU macro-regional strategies, provide platforms for coordination without requiring full legal or administrative harmonization. Taken together, multi-level governance and territorial rescaling have reconfigured the operating logic of the modern state, particularly within the European Union and in border-proximate areas such as the Korça region, where institutional flexibility and cross-jurisdictional negotiation have become integral to regional development.

1.2 Collaborative Governance

Effective cross border policy coordination further depends on the principles of collaborative governance, which emphasize structured interaction among autonomous yet interdependent stakeholders. Governments must ensure that national priorities and overarching processes, including central planning, regulatory alignment, and European integration, are consistent with sectorial policies and cross-sectorial strategies. Collaborative governance regimes (CGRs) provide a conceptual and operational architecture for managing such complexity. Their core design elements typically include:

- Inclusive participation, ensuring that the range of public, private, and civil society actors is adequately represented;
- Joint fact finding and shared metrics, creating a common evidentiary basis for decision-making;
- Facilitative leadership, capable of mediating interests and promoting consensus;
- Involving repetition and adaptive processes, enabling continuous learning and adjustment across policy cycles.

In cross border contexts, these regimes must also address linguistic heterogeneity, multiple legal jurisdictions, divergent administrative cultures, and asymmetries in institutional or fiscal capacity. These additional layers of complexity shape the durability, legitimacy, and practical effectiveness of cooperation.

1.3 Local/Regional Borderwork and Everyday Practices

Institutional arrangements alone, however, cannot fully explain variations in cross border collaboration. Cooperation is also enacted through local/regional borderwork—the everyday practices and informal routines through which public servants, NGOs, businesses, and residents translate formal agreements into actionable, lived realities. This perspective foregrounds the importance of trust-building, brokerage functions, and boundary spanning roles performed by individuals and organizations. By highlighting the relational and narrative dimensions of cooperation, local/regional borderwork helps explain why cross border regions with ostensibly similar institutional structures may nonetheless diverge significantly in performance. Social capital, shared meanings attached to the border, and locally embedded networks are thus essential components of cross border governance.

1.4. An Analytical Framework for Cross border Collaboration

Building on these conceptual foundations, we propose an integrated analytical framework consisting of three interrelated layers that together shape the dynamics and outcomes of cross border cooperation.

1. Enabling conditions: Fundamental structural and institutional prerequisites, including legal interoperability, stable political commitment, access to cross border funding instruments, and adequate physical and digital connectivity, constitute the environment in which cooperation becomes viable.

2. Collaborative dynamics: Within this enabling environment, the quality of cross border collaboration depends on inclusive participation, trust, and reciprocity among actors, shared knowledge systems, and facilitative leadership capable of navigating institutional diversity and fostering collective problem-solving.
3. Performance outcomes: When enabling conditions and collaborative dynamics align effectively, cross border cooperation can generate measurable outcomes such as improved service provision, diffusion of innovation across jurisdictions, enhanced social equity, and progress toward ecological sustainability.

Feedback loops link these layers, capturing processes of learning, institutional adaptation, and path dependence across successive project cycles. As a diagnostic tool, the framework supports the identification of systemic alts of progress and the formulation of targeted interventions—ranging from legal toolkits and funding design to capacity-building initiatives and the development of shared data infrastructures, thereby informing more robust and durable models of cross border collaboration.

2. Challenges in Practice

Cross border cooperation often operates in a fragile environment shaped by political volatility and policy drift, where electoral turnover, nationalist rhetoric and periodic diplomatic tensions can rapidly destabilize partnerships. Such shifts at the national level may stall otherwise functional local collaborations, interrupt joint projects, or turn routine technical matters, such as transport coordination or water resource allocation into politically sensitive disputes. Compounding these challenges are persistent legal and administrative asymmetries: mismatched planning regulations, procurement procedures, audit requirements, and data protection frameworks frequently obstruct smooth cooperation. Even when high level agreements are in place, frontline implementers continue to experience uncertainty around liability, oversight mechanisms, and procedures for resolving disagreements. Finally, resource and capacity gaps contribute to uneven participation and bargaining power within cross border initiatives. Municipalities with limited budgets, weaker administrative structures, or insufficient technical staff may struggle to engage meaningfully, resulting in superficial involvement or allowing better resourced partners to dominate project agendas. Collectively, these constraints reveal how structural imbalances, institutional fragmentation, and political dynamics can weaken the long term effectiveness and equity of cross border governance.

2.1 Sociocultural and Linguistic Frictions

Stereotypes, language barriers, and divergent professional norms can quietly erode the quality of deliberation in cross border collaboration. These challenges often do not appear as explicit conflicts; instead, they manifest as subtle ―frictions‖ rooted in the different ways actors from Albania, Greece, and North Macedonia interpret reality, approach work, and communicate. While cultural brokers and bilingual facilitation can mitigate these risks, such mechanisms require sustained institutional investment to function effectively.

First, sociocultural analyses show that work culture in cross border regions is profoundly shaped by differing administrative traditions, historical legacies, and organizational behaviors.

- *Hierarchy vs. Horizontality*. In Albania, institutional environments tend to display higher power distance and traces of academic authoritarianism, while Greek and broader EU partners typically employ more horizontal, participatory, and consensus driven models. This divergence frequently complicates joint decision-making processes, as expectations regarding authority, initiative, and consultation do not automatically align.

- *Time and Planning*. Variations in how time is perceived, such as strict adherence to EU project timelines versus a more flexible, improvisational ―Balkan‖ rhythm, create tensions among administrative and academic staff. What one partner views as necessary rigor may be interpreted by another as rigidity, while flexibility may be seen as inefficiency.
- *Collectivism vs. Individualism*. Albanian society continues to be strongly collectivist, with decision-making often influenced by family networks, community norms, and relational trust. Partner institutions, particularly those following European administrative logic, place greater emphasis on individual responsibility, meritocratic procedures, and procedural transparency. These contrasting mental models can hinder alignment around project responsibilities, performance expectations, and evaluation metrics (Nikaj & Titili, 2024).

Furthermore, in cross border governance, language serves not only as a medium of communication but also as a vessel for culture, hierarchy, and meaning.

- *English as ―Lingua Franca.‖* The widespread use of English as a neutral third language may facilitate interaction, but it often leads to subtle losses in nuance. Ethical, pedagogical, or culturally embedded concepts expressed powerfully in Albanian may lose depth when translated into technical English. This can create gaps between what actors intend to communicate and what their partners ultimately perceive.
- *Administrative Terminology*. Key governance terms, such as ―accountability,‖ ―inclusive education,‖ or ―quality assurance‖, carry different historical and institutional connotations across Albania, Greece, and North Macedonia. As a result, partner institutions may unintentionally speak past one another, each assuming shared definitions that do not in fact exist.
- *Body Language and Codes of Courtesy*. Communication in cross border settings also depends on nonverbal cues: hospitality practices, tone of voice, conversational pacing, and expected physical distance. When foreign partners are unfamiliar with these codes, their behavior may be misinterpreted as aloof, overly formal, or unprofessional. Conversely, local expressions of warmth or sociability may be misunderstood as informal or insufficiently ―institutional‖ in EU contexts (Nikaj, 2023).

Moreover, to increase overall effectiveness, institutions should adopt what we refer to as *Intercultural Competence*, a framework that enhances collaboration, communication, and mutual understanding across cultural boundaries. This approach begins with *Awareness Training*, which must extend beyond language acquisition to include a deep understanding of partners' cultural codes, norms, and expectations. By recognizing how cultural perspectives influence communication styles, decision-making, and problem-solving, institutions can reduce misunderstandings and build more resilient partnerships. As a second pillar of this strategy involves engaging *Cultural Mediators*, individuals whose academic or lived experiences position them at the intersection of both cultures involved. For example, staff members who have studied or lived in neighboring countries (such as Albanians from Greece working in UNIKO's administration) can play a vital role in bridging communication gaps, interpreting cultural nuances, and fostering trust between partners.

In conclusion, true institutional effectiveness is achieved when an organization succeeds in harmonizing cultural diversity and turning it into a productive asset. In this sense, effective institutions are those capable of transforming cultural ―friction‖ into creative energy, converting differences into drivers of insight, adaptability, and collective strength (Nikaj, 2018).

3. Opportunities for Innovation and Integration

Cross border regions (CBRs) can significantly strengthen their governance capacity by employing a suite of experimental, financial, informational, and community-driven mechanisms designed to deepen cooperation and improve policy outcomes. For example, policy sandboxes and pilot zones offer controlled environments in which interoperable standards, such as digital identification systems or integrated mobility tickets can be tested before large scale deployment. By allowing institutions to experiment with real users at a manageable scale, these sandboxes reduce implementation risks while accelerating collective learning across borders.

Likewise, cross border funding and financial engineering provide the foundation for durable collaboration. Blending supranational funding streams with local cofinancing arrangements, social impact instruments, and public-private partnerships can create multiyear financial stability. This mixed funding architecture aligns incentives across stakeholders and encourages outcome-oriented planning, ensuring that resources are allocated where they can deliver measurable, long-term impact.

To support consistent coordination, CBRs benefit from robust *knowledge infrastructures*. Joint observatories, open data portals, and shared evaluation frameworks reduce information asymmetries that often hinder cooperation. By standardizing how data is collected, shared, and interpreted, these infrastructures make collaboration more predictable and empower policymakers to base decisions on reliable evidence while reinforcing accountability to all participating regions.

Finally, c*ommunity anchored coproduction* ensures that cross border initiatives reflect not only institutional priorities but also the lived realities of local communities. Tools such as citizen assemblies, participatory budgeting, and living labs invite residents directly into the problem-solving process. Embedding community knowledge in this way allows solutions to be tailored to local contexts, enhances legitimacy, and cultivates public ownership of cross-border projects, ultimately strengthening the social foundations on which lasting cooperation depends.

4. Practical Strategies for Strengthening Cross Border Collaboration

Strengthening cross border collaboration requires a sequenced set of practices that build trust, align expectations, and create the institutional conditions necessary for sustained joint action. A foundational step is *joint fact finding*, in which partners develop a shared evidence base and a common glossary of key terms. This process surfaces underlying assumptions, reduces ambiguity, and enables a more coherent understanding of the issues at stake.

Effective collaboration further depends on *boundary spanners*—professionals equipped with bilingual or bicultural competencies, authorized to convene meetings, and capable of mediating between administrative and legal systems. By facilitating communication and bridging institutional divides, boundary spanners help mitigate coordination failures that frequently occur in cross-jurisdictional contexts.

In the early stages of cooperation, partners should prioritize *small, visible wins* that can be achieved within six to twelve months. Such early achievements serve to consolidate trust, demonstrate the value of collaboration, and build momentum for more ambitious initiatives. As cooperation matures, a ―*codify, then adapt*‖ approach becomes essential: framework agreements or memoranda of understanding should formalize commitments while allowing pilot-level derogations that enable experimentation, iterative learning, and incremental alignment of procedures.

To maintain long term engagement, collaborative structures must incorporate mechanisms that share risks and rewards across participants. Aligning financial instruments with outcome-based milestones, coupled with transparent cost-sharing arrangements, helps distribute responsibility equitably and ensures that all parties benefit from collective success. Equally important is the institutionalization of learning through after action reviews, structured peer exchanges, and open data dashboards that promote transparency and enable continuous improvement.

Finally, cross border partnerships must guard against inequities that stem from asymmetries in fiscal, administrative, or technical capacities. Resource caps, participation grants, and targeted support can prevent under-resourced partners from being marginalized and ensure that collaboration remains inclusive, representative, and legitimate.

Methodological Reflections and Research Agenda: Advancing research on cross border collaboration requires methodological pluralism and comparative ambition. Future studies should combine comparative case studies with configurational methods, such as Qualitative Comparative Analysis (QCA), to identify multiple pathways to successful collaboration under divergent structural conditions. Mixed methods designs hold particular promise: network analysis can map interorganizational ties and reveal patterns of connectivity and influence, while ethnographic approaches can capture the vernacular practices and everyday routines through which cooperation is enacted on the ground.

Several unresolved questions merit systematic attention. First, how do different funding logics shape the durability and depth of cross-border collaboration? Second, which forms of facilitative leadership are most effective across culturally diverse or institutionally heterogeneous settings? Third, what forms of data interoperability are both legally compliant and practically implementable across jurisdictions with distinct privacy regimes and technological infrastructures? Addressing these questions will help advance both theoretical understanding and policy relevance.

4.1. Illustrative Cases of Cross Border Collaboration: Sectorial Vignettes and the UNIKO Experience

Cross border collaborative governance is most clearly observed through concrete practices that reveal how institutions interact, negotiate, and coproduce public value across jurisdictional boundaries. The following vignettes illustrate three distinct domains, environmental management, labor market integration, and public transport, each demonstrating how coordinated action, shared knowledge systems, and trust building mechanisms can generate measurable improvements. These cases are complemented by insights from the Korça region, a key hub of cross border cooperation in the Greece-Albania and North Macedonia-Albania borderlands.

Vignette A: Floodplain Management: Two neighboring municipalities establish a cross border river basin council to improve governance of a shared floodplain. Through joint hazard mapping, the partners generate a common risk assessment that informs harmonized zoning rules and coordinated emergency protocols. Regular cross-border drills deepen professional

trust, while open data platforms ensure transparency and foster public confidence. The collaboration yields measurable improvements, including reduced emergency response times and ecological restoration of riparian zones, illustrating how shared environmental governance can combine risk mitigation with ecosystem recovery.
Vignette B: Integrated Labor Market Services: Chambers of commerce and public employment agencies from both sides of the border launch an integrated labor market service platform. Mutual recognition of selected vocational certificates enables mobility of skilled workers, while a bilingual help desk and regular employer roundtables reduce matching frictions. The initiative improves the efficiency of job placement processes and supports firms facing specialized skill shortages. As a result, cross-border labor mobility increases, highlighting the value of coordinated employment services in regions with complementary labor market characteristics.
Vignette C: Cross-Border Public Transport: Transit operators collaborate to implement a unified smart-ticketing system and synchronized timetables. A technical working group addresses challenges related to fare clearing and data standards, and an ombudsperson is appointed to manage user complaints and ensure service accountability. The coordinated system increases ridership, enhances the accessibility of peripheral communities, and strengthens public trust in mobility services. This case demonstrates how technical interoperability, when paired with user oriented governance mechanisms, can significantly improve cross-border connectivity.

Table 1. Summary of Cross Border Collaboration Vignettes

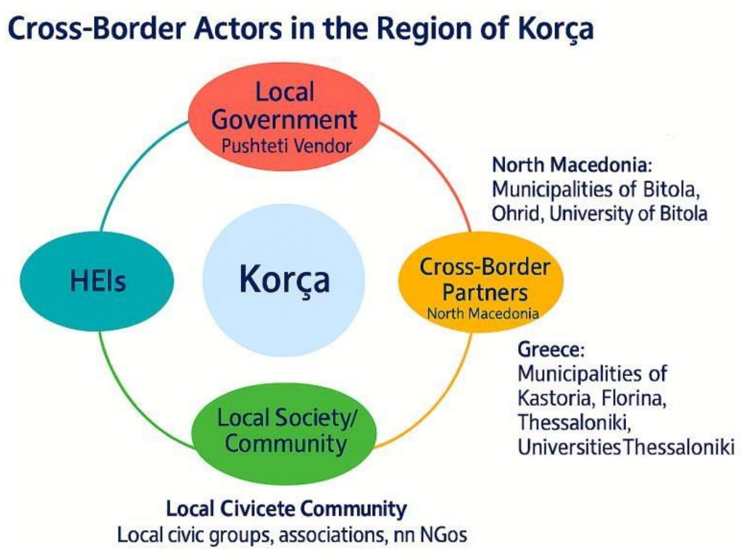
Vignette	Domain	Key Collaborative Actions	Governance Mechanisms	Outcomes
A. Floodplain Management	Environmental risk management	• Joint hazard mapping • Harmonized zoning rules • Coordinated emergency protocols • Regular cross-border drills	• River basin council • Transparent data-sharing • Routine technical cooperation	• Reduced response time • Ecological restoration of riparian zones
B. Integrated Labor Market Services	Employment & skills mobility	• Shared vacancy platform • Mutual recognition of vocational certificates • Bilingual help desk • Employer roundtables	• Inter-agency cooperation • Joint service tools • Business–institution partnerships	• Increased cross-border job placements • Lower matching frictions

C. Cross-Border Public Transport	Mobility & public services	• Unified smart-ticketing • Synchronized timetables • Fare-clearing and data standard solutions	• Technical working group • Shared data protocols • Ombudsperson for service issues	• Higher ridership • Improved access for peripheral communities

4.2. The Korça Region and UNIKO: Anchoring Cross-Border Innovation, Education, and Community Development

The Korça region occupies a strategic position within the Greece-Albania and North Macedonia-Albania cross-border area, making it a pivotal site for EU supported cooperation in sustainability, tourism, education, and regional development. Korça plays an important role in the *Interreg VI-A Greece-Albania* and *IPA CBC North Macedonia–Albania* programs, both of which emphasize multi stakeholder collaboration and integrated development strategies. At the center of these dynamics stands Fan S. Noli University (UNIKO), founded in 1992 as the region‘s primary academic institution. Through expanding international partnerships, active Erasmus+ mobility, and growing research engagement, UNIKO contributes significantly to cross border knowledge exchange and regional innovation.

- Cultural and Tourism Innovation: RISTOR and Digital Storytelling Korça participates actively in the RISTOR consortium, which supports rural innovation and sustainable tourism through cooperation among cultural institutions, local governments, and community organizations. Parallel initiatives in Digital & Interactive Storytelling enhance the region‘s capacity to modernize museum and gallery experiences. These projects align closely with UNIKO‘s strengths in the humanities and education, while contributing to community-based cultural development.



- Erasmus+ Mobility and Academic Partnerships UNIKO maintain robust Erasmus+ collaborations. Such partnerships reinforce academic internationalization, expand opportunities for student and staff mobility, and deepen inter-university networks that support shared research agendas and curricular innovation.
- Western Balkans Collaborative Projects such as *BLENDED EDUCATION IN WESTERN BALKANS UNIVERSITIES* and *SuProM (Sustainable Project Management in Balkan HEIs)* demonstrate UNIKO‘s active involvement in region wide capacity building initiatives. These projects advance institutional capabilities in digital pedagogy, project management, and EU-aligned governance practices, core competencies for effective participation in cross border cooperation frameworks.
- Cross Border Youth and Economic Development (MK-AL CBC)

Korça also serves as a key site for youth-centered and economic development initiatives under North Macedonia–Albania cooperation programs. The ―World Heritage in Young Hands‖ project promotes youth engagement, cultural dialogue, and civil-society networking between municipalities. Meanwhile, the ―Virtual Action-Real Result‖ initiative strengthens entrepreneurial skills and market connectivity among businesses in Korça, Ohrid, and Struga. These programs enhance experiential learning opportunities for UNIKO students, particularly in economics, business, cultural heritage, and tourism.

Conclusions and Policy Recommendations

Collaborative governance in cross-border regions flourishes when enabling conditions—such as legal interoperability, stable political commitment, and adequate funding—intersect with inclusive, trust-based processes. Policymakers can play a critical role by reducing legal ambiguity, creating incentives for joint outcomes, and investing in the human and technical infrastructures that bridge administrative and cultural divides.

Key recommendations include:

- Develop legal interoperability toolkits and standardized cross border procurement templates to streamline joint action.
- Establish multiyear, outcome based funding envelopes with clear mechanisms for shared accountability.
- Mandates shared data standards and support the creation of privacy-preserving data collaborative to facilitate lawful and efficient data exchange.
- Strengthen the professional capacity of boundary spanners and bilingual facilitators through targeted training and career pathways.
- Embed community co-production mechanisms to ensure that cross-border initiatives reflect local priorities and enhance democratic legitimacy.

Taken together, these measures provide a robust foundation for more effective, equitable, and resilient cross-border governance. Taken together, the vignettes and the Korça UNIKO experiences illustrate how cross border collaboration is operationalized through practical coordination, shared technical standards, and sustained relational investments. Whether addressing environmental risk, labor market inefficiencies, transport integration, or community based innovation, these cases show that successful cooperation emerges from a combination of institutional commitment, evidence based planning, and boundary-spanning capacities. The Korça region and UNIKO exemplify how higher education institutions can serve as anchors for knowledge exchange, capacity building, and long-term regional partnership development.

Collaborative governance has emerged as a central approach for addressing the growing complexities of cross border and regional development contexts. Fostering inclusive decision-making, it enables institutions to navigate interdependencies, reduce fragmentation, and respond more effectively to multidimensional challenges. In cross border regions in particular, collaboration enhances coordination across administrative boundaries and supports the creation of shared strategies for sustainable territorial development.

A key strength of inclusive governance lies in its capacity to promote resource sharing, joint problem solving, and innovation. Through shared information systems, pooled expertise, and coproduced solutions, collaborative arrangements generate outcomes that are both more sustainable and more equitable. These processes help reduce capacity asymmetries among institutions, improve service delivery, and create long-term public value.

To further enhance the effectiveness of collaborative governance, several strategic priorities should guide policy and institutional action. First, trust building remains essential, as transparency, consistent communication, and mutual accountability form the foundation of durable partnerships. Second, regulatory harmonization, particularly in cross-border settings, helps lower administrative barriers, streamline implementation, and increase the predictability of joint initiatives. Third, sustained investment in digital infrastructure enables interoperable systems, data-driven decision-making, and efficient service coordination across jurisdictions.

At the end, collaborative governance constitutes a vital approach for managing the complexities of cross border regions and expanding the role of higher education institutions in regional development. By advancing inclusive decision making, promoting resource sharing, and enabling innovation, it contributes to long-term sustainability and equity. To maximize its transformative potential, stakeholders must prioritize trust-building, regulatory convergence, and robust digital infrastructures. Together, these recommendations offer a practical roadmap for strengthening collaborative governance and securing its long-term effectiveness in an increasingly interconnected world.

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CLIMATE CHANGE IN KORÇA REGION: CHALLENGES AND OPPORTUNITIES FOR A SUSTAINABLE FUTURE FOR AGRICULTURAL PRODUCTION

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Abstract
Agriculture is the main economic sector of Korça Region. It contributes 43.2% to the regional economy's GDP and is the main source of employment. Climate change is a significant threat to agriculture, reducing crop yields, thermal and water soil quality, water resources, and regional food security. This study holistically analyzes climate change in the Korça region and its impact on agricultural crops, highlighting the urgent need for innovation and adaptation. Significant changes were identified in agroclimatic indicators such as changes in temperature, precipitation patterns, extreme weather events, and changes in the dynamics of pests and diseases. These changes have profound implications for agricultural production, the rural economy, and the sustainability of ecosystems. Climate change presents a challenge for finding better ways including crop diversification, water management, application of new agricultural practices, technological innovation, and eco-compatible agriculture. They are essential for increasing the resilience of agricultural systems to climate change. Data collected from hydrometeorological stations in the Korça region, Albania, were processed and compared with the corresponding data indicators from the previous 30-year periods. The increase in temperature represents a trend without significant fluctuations from one year to the next. The annual amount of precipitation does not show any significant changes, while a greater concern is the amount of rain falling on fewer days but in larger quantities, affecting the increase in the drought period. Changes in agroclimatic indicators present a challenge for producers in the field of agriculture, for remodeling agricultural areas and determining the most appropriate technologies for cultivating agricultural crops.

***Keywords**: bioclimatic indicators; climate change; ecosystems; precipitation; Korça region; temperature.*

1. Introduction

Climate change are the most significant threat to global agriculture. Agriculture is highly exposed to the impact of climate change: changing temperatures lead to disruption of the agricultural cycle of plants, changing rainfall patterns and extreme weather events, such as extreme heat waves, droughts, storms and floods.

1. Temperature stress (Heat and cold stress)
Higher temperatures, the growth rates of which have been high in recent decades, affect the shortening of the growth and development cycle of plants and consequently lead to reduced productivity.
Climate change has exposed plants to heat and cold stress. Temperature directly affects the intensity with which various plant functions develop, such as: germination, photosynthesis, transpiration, enzymatic activity, growth and development, accumulation of organic matter, passage of phenological phases and the plant cycle. Temperature affects microbial processes

in the soil as well as the physicochemical properties of the soil. The average temperature is projected to increase by 0.2°C per year. It will increase by 1.8°C to 4°C by the end of the year 2100, highlighting temperature as one of the most damaging stresses. [Hasanuzzaman et al., 2013]. Temperature-related climate change is a global concern that has affected the physiological and biochemical activity of plants, reducing crop production. [Bandi et al., 2012].

2. Drought stress (Water-related stress)

Reduced precipitation and increased evapotranspiration lead to drought conditions. Drought stress causes plant wilting, leaf scorch, and reduced photosynthesis, reducing CO2 uptake and limiting photosynthesis. (Baidya et al., 2022). Drought can also lead to reduced cell turgor, inhibiting cell expansion and growth.

Drought is one of the main factors affecting plant production. Plant growth and yield are affected by this stress. [Atta et al., 2021]. Drought stress is caused by lack of rainfall, salt accumulation in the soil, increased temperature, and excessive light intensity. Drought stress has a significant impact on plant growth, water retention, and water efficiency [Atta et al., 2020, Fathi and Tari 2016], and causes changes in physiological, biochemical, morphological, and molecular traits.

3- Higher frequency of extreme climate events such as temperatures above 35°C, early frosts in autumn and late frosts in spring (April 9, 2025 temperatures dropped to -7°C), floods, hail and storms are becoming more frequent due to climate change.

4- Increased rate of plant pest and disease infestation

Higher temperatures and changing rainfall patterns have facilitated the spread of pests and diseases that affect plants. Rising temperatures create favorable conditions for the expansion of the range of pests and their reproduction rate, leading to increased infections.

5- Impact on biodiversity

Climate change is affecting species biodiversity in many ways, from genes to ecosystems. (Garrett et al., 2006; Sutherst et al., 2011). According to Scheffers et al. (2016), anthropogenic climate change has damaged 82 percent of key ecological processes, from genetic diversity to ecosystem function.

The increase in temperature as part of climate change has significantly affected the productivity of crops grown in the spring, such as beans, potatoes, sugar beets, vegetables, etc., as well as those planted in the fall, such as barley and wheat.

An important indicator of climate change that has been observed in this area is the decrease in the number of days with snow, as well as the delay in the onset of snowfall.

The Korça region is characterized by a faster than predicted increase in temperature and drought compared to other regions (this is related to the altitude above sea level of more than 850 m and the big distance from the seas). High temperatures and prolonged drought are the abiotic stresses with the greatest impact on agricultural crops (Maho et al., 2023). Under these conditions, a scientific response to the scientific solution to this problem is a necessity for farmers.

With these climate change conditions, climate-resistant crops and crop varieties have been recommended as a way for farmers to deal with or adapt to climate change. Integrated physiological and molecular approaches are important to protect crops from multiple abiotic stresses.

The objective of the study was to assess the changes in climatic indicators for the Korça region in Albania, based on scientific parameters. To determine scientific solutions regarding the management of abiotic stress in plants in the Korça region as a result of the change in agro-climatic indicators. Conducting these studies aims to turn climate change from a problem into an opportunity for increasing the productivity of agricultural crops and sustainable agricultural development in harmony with the environment.

2. Material and Methods

2.1 Material

In this study are used climatic data, with reference to meteorological stations located in the plain area of Korça and Bilisht in Albania related to meteorological indicators (temperature, precipitation, relative humidity, wind speed and direction, solar radiation). Korça lies at an altitude of 850 m above sea level and is characterized by a Mediterranean mountainous and partly continental climate, with cold winters and hot and dry summers. The average annual temperature reaches up to 10.6 ºC. January is the coldest month, while August is the hottest. November is the wettest month with an average rainfall of 104 mm, while the average annual rainfall reaches 720 mm.
For this reason, in our study, have been collected and processed, data on agro climatic indicators of a 120-year period (1901 - 2020). The data are grouped then into 30-year periods: 1901 – 1930, 1931 – 1960, 1961 – 1990 and 1991 – 2020.
In the study we reflect more detailed data for a shorter period of time 2018 – 2023 because in this period we have set up some experiments related to the impact of climate change as well as finding the most appropriate solutions to respond to these changes in some agricultural plants such as barley, corn, fodder peas, potatoes, small grain beans, sugar beet, etc.

2.2 Methods

To assess the variability of the climatic features of the Korça Region, data were collected and processed regarding the following variables:

1. Minimum, maximum, average (daily, monthly, annual) temperature (ºC);
2. Precipitation mm (daily, monthly, annual);
3. Number of days with snow;
4. The drought period which is determined by integrating the curves of the average monthly temperature and monthly precipitation;
5. Sum of active temperatures equal to or higher than 10°C ($\sum TA>10°C$)
6. Frost-free period (period during which all days have temperatures >0°C).

The data's are obtained from different sources, such as:

- ✓ Hydro meteorological Institute - Academy of Sciences. Climate of Albania, Volumes I and II (data for the corresponding years 1931-1960 and 1961 - 1990)
- ✓ Institute of Geosciences (data for the corresponding years 1991-2021)
- ✓ Monthly climate bulletins, Institute of Geosciences publications [Climate Bulletin 2018-2023].
- ✓ The data's observed for the respective time periods are processed, and obtained different values of climate variables:
- ✓ Records on average, maximum and minimum monthly and annual temperatures;
- ✓ Records on monthly and annual rainfall;
- ✓ Daily and monthly records on average, maximum and absolute minimum temperatures;

- ✓ Monthly recorded values on the number of days with relative humidity equal or lower to 50 %;
- ✓ Monthly data of the number of days with relative humidity greater than or equal to 80%
  (≥ 80 %) for 14 hours;

From a general ecological standpoint, the classification of climate is done on the basis of climatic indicators. Generally, these indicators are focused on the thermal and precipitation regimes as the most important climate elements [Kopali et al,2012].
The determination of drought periods was calculated according to the Bagnlous & Gossen ombrothermic diagram method [Bagnlous and Gossen, 1957]. The temperature and precipitation trends and their tendencies are analyzed by using regression equations and correlation coefficients.
Variability of plant traits (phenotypic variability) results from genetic variability (cultivation of different cultivars) and ecological variability. Experimentally studying the variability of cultivar traits (cultivars, agrotechnology and soil factor were the same for the years under study), we determined the influence of climatic factors.

2.3 Experimental field observations
The influence of climatic factors on the traits of agricultural plants is specific. We are presenting a study of the influence of climatic factors on forage beans and peas. To assess the influence of climatic factors on plant development and their yield, field observations were conducted, documenting phenological phases and biometric measurements of the plants. The following parameters were recorded: number of pods per plant, number of seeds per pod, seed weight per pod (g), 1,000 seed weight (g), seed yield (calculated at 14% moisture content), protein content in seeds (%), and protein (kg/ha).
Biometric measurements were taken before harvest in fully ripe plants. The Kjeldahl method was used to analyze the protein content in the seeds. It was carried out through a digestion, distillation and titration scheme. Protein content was calculated: Protein (kg/ha) = Yield (kg/ha) x Protein content in seeds (%).

2.4. Statistical analysis methods
Data were collected from the experiment in randomized complete blocks with four repetitions. Correlation analysis was used for statistical assessment, and the significance of results was verified with the least significant difference test at the significance levels of $\alpha = 0.01$ and 0.05.
The correlation analysis between the April-June precipitation and yield is based on the correlation coefficient using the following formula (Xhuveli & Salillari, 1984):

$$r = \frac{\sum XiYi - nXavgYavg}{\sqrt{(\sum Xi^2 - nXavg^2)(\sum Yi^2 - nYavg^2)}}$$

where:
Xi = Average number of days of the flowering period;
Yi = yield values kg/ha;
Xavg = average values of days in flowering;
Yavg = average yield values kg/ha;
n = number of groups in the study.

The analysis of the correlation between amount of rainfall in the April-June period and production was based on the coefficient of correlation according to the following formula (Xhuveli & Salillari, 1984):

$$r = \frac{\sum XiYi - nXmeanYmean}{\sqrt{(\sum Xi^2 - nXmean^2)(\sum Yi^2 - nYmean^2)}}$$

where:

Xi = average values of day per flowering;
Yi = yield values kg/ha;
Xavg = average values of days in flowering;
Yavg = average yield values kg/ha;
n = number of groups in the study.

3. Results and Discussion

3.1 Results

From the data processed, the climatic features of the Korça plain and Bilisht were determined, based on the four analysed variables: average rainfall (mm); average annual temperature (ºC); average number of days with relative humidity ≥ 80 % annually, and average number of days with relative humidity ≤ 50 % per 14 hours. The obtained results have been processed and compared with the data on agroclimatic indicators of a 120-year period (1901 - 2020). The data on minimum atmospheric temperatures 2018-2023 in the Korça region are presented in Table 1.

Table 1*. Atmospheric minimum temperatures during 2018-2023 [Meteorological Bulletins, published by the Institute of Geosciences, Energy, Water and Environment, related to the minimum temperatures for the years 2018-2023 in the Korça region]*

Minimum average atmospheric temperatures (°C)								
Month	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	Average 2018-2023	Average 1961-1990
January	-1	-6.5	-3.4	-2.3	-3.1	-0.7	-2.8	-2.7
February	0	-2	-1	-1.7	-1.2	-3.2	-1.5	-0.6
March	2.2	1.8	1.9	0.3	0.4	2.4	1.5	1.4
April	4	4.8	3.6	3.7	3.8	3.2	3.6	4.3
May	11.6	8.2	8	9.1	9.6	8	9	7.7
June	12.6	13.9	12.6	12.8	14.6	12.8	13.3	11.4
July	15.3	14.9	15.1	15.2	15	17.8	15.6	14.5
August	14.8	15.6	15.4	15.4	14.8	14.6	15.1	15.6
September	11.4	12.2	11.8	11.5	10.4	13	11.8	10.8
October	9.9	8.6	6	8.1	5.8	7.7	7.7	6.8
November	4.1	5.8	1	3.5	3.6	4.7	3.8	0.9
December	-2	0.2	0.8	-0.2	2.4	1.4	0.4	-1.8
Average	6.9	6.5	6	6.3	6.3	6.8	6.5	5.65

The data on maximum atmospheric temperatures 2018-2023 in the Korça region are presented in Table 2.

***Table 2**. Atmospheric maximum temperatures during 2018-2023 [Meteorological Bulletins, published by the Institute of Geosciences, Energy, Water and Environment, related to the maximum temperatures for the years 2018-2023 in the Korça region]*

Maximum average atmospheric temperatures (°C)								
Month	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	Average 2018-2023	Average 1961-1990
January	6.6	2.1	7	6.7	6.9	7.7	6.2	3.7
February	6	8.4	10.2	10.1	9.8	10.2	9.1	4.2
March	12	15.2	12.1	9.1	9	12.8	11.7	8.4
April	21	16.4	16	15.1	16.2	15.2	16.7	15.1
May	22.6	18.2	22	21.5	23.8	19.2	21.2	20.3
June	24.4	27.1	24	26	27.2	24.8	25.6	24.2
July	27.5	28.1	29.1	28.1	29.6	31	28.9	26.5
August	26.2	30	27	27.5	28.2	29	28	26
September	24.8	25.2	25	24.9	24.8	25.4	25	23.8
October	18.7	21.4	19	19.8	20.4	22.7	20.3	16.2
November	12.3	13.8	13.4	13.3	14.6	14.7	13.7	13.5
December	6.4	8.2	9.4	8.1	10.2	10.4	8.8	7.4
Average	17.4	17.8	17.8	17.5	18.3	18.6	17.9	15.75

The data on average atmospheric temperatures 2018-2023, 1931-1960, 1961-1990, 1991-2020 in the Korça region are presented in Table 3.

Table 3. Average atmosphere temperature (°C) in the Korça region [Processed by the Meteorological Bulletins published by the Institute of Geosciences, Energy, Water and Environment, related to the average temperature for the years 2018 – 2023 in the Korça region.]

Average atmospheric temperatures (°C)										
Month	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	Average 2018-2023	Average 1991-2020	Average 1961-1990	Average 1931-1960
January	2.8	-2.2	1.8	2.2	1.9	3.5	1.7	-0.8	0.5	0
February	3	3.2	4.6	4.2	4.3	3.5	3.8	0.6	1.8	1.6
March	7.1	7.5	7	4.7	4.4	7.6	6.4	4.2	4.9	4.8
April	12.5	10.6	9.8	9.4	10	9.2	10.2	8.8	9.7	9.4
May	17.1	13.2	15	15.8	16.7	13.6	15.2	13.4	14	14.5
June	18.5	20.5	18.3	19.4	20.9	18.8	19.4	18	17.8	17.5
July	21.4	21.5	22.1	21.4	22.3	24.4	22.2	20.9	20.5	19.5
August	20.5	22.8	21.2	21.5	21.5	21.8	21.6	21.3	20.8	19.1
September	18.1	18.7	18.4	18.3	17.6	19.2	18.4	16.1	17.3	16.2
October	14.3	15	12.5	13.7	13.1	15.2	14	11.4	11.5	11.3
November	8.2	9.8	7.2	8.4	9.1	9.7	8.7	6.1	7.2	6.3

r										
December	2.2	4.4	5.6	3.9	6.3	5.9	4.7	1.2	2.8	1.9
Average	12.1	12	11.9	11.9	12.3	12.7	12.2	10.1	10.7	10.2

The data on average precipitation 2018-2023, 1931-1960, 1961-1990, 1991-2020 in the Korça region are presented in Table 4.

Table 4. Average precipitation for the corresponding years in the Korça region. [Meteorological Bulletins published by the Institute of Geosciences, Energy, Water and Environment, related to monthly and annual amount of rainfall for the years 2018 – 2023, in the Korça region.]

Precipitation (mm)										
Month	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	Average 2018-2023	Average 1991-2020	Average 1961-1990	Average 1931-1960
January	52	145	15	172	25	105	85.8	73	47	70
February	47	12	45	87	76	20	47.8	76	54	68
March	123	12	115	52	48	62	68.7	77	46	53
April	12	55	54	53	78	66	53	75	48	54
May	128	82	41	18	16	110	65.8	67	62	58
June	145	65	41	85	80	142	93	34	45	42
July	25	74	38	32	40	7	36	26	32	21
August	160	21	112	22	42	25	63.6	21	23	25
September	8	17	32	35	44	41	29.5	49	38	44
October	12	25	56	67	52	36	41.3	67	76	85
November	156	184	12	52	68	165	106.2	87	105	112
December	42	74	71	65	45	38	55.8	96	75	89
Average	910	766	632	740	614	817	746.5	748	651	721

3.2 Discussion

The Mediterranean region (which includes Albania) has been identified as one of the regions that will be affected by significant climate change. [Alessandri et al., 2014, Diffenbaugh and Giorgi, 2012]. Cultivar selection is one of the best ways to face with the negative effects of climate change and environmental stresses. [Souri and Hatamian, 2019, Zivdar et al., 2016]. It is predicted that with climate change there will be a significant increase in maximum and minimum temperatures in all seasons. [Cardoso et al., 2019]. The best way to deal with crop responses to a warmer climate is to assess the response of cropping systems. Plant phenology is one of the fundamental characteristics and serves as an indicator of production. It changes as crops adapt to changing environmental conditions. [Duchêne and Schneider, 2005., Lipiec et al., 2013., Sadras and Monz, 2006., Wolfe et al., 2005.].
From the data presented an increase in the average air temperatures was observed. For the corresponding period 2018 – 2023 compared to the years 1961-1990 the average minimum atmosphere temperatures was increased by 0.85 °C, average maximum temperature was increased by 2.15 °C, while the average temperature show ed an increase by 1.5 °C.

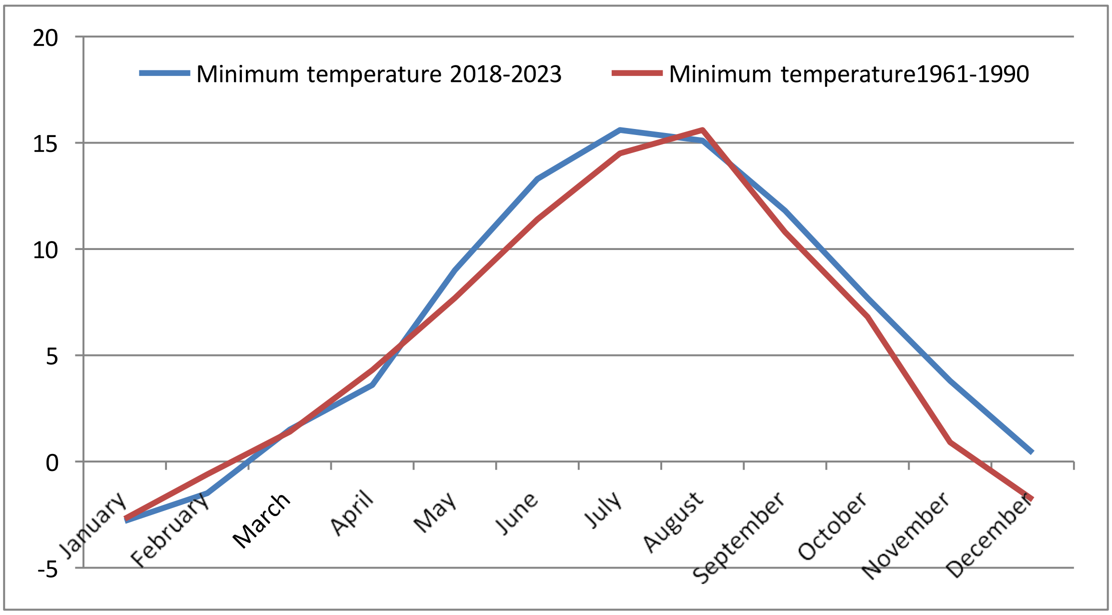

Figure 1. Graph of minimum atmosphere temperature (°C) according to the months for the periods 1961-1990 and 2018 – 2023

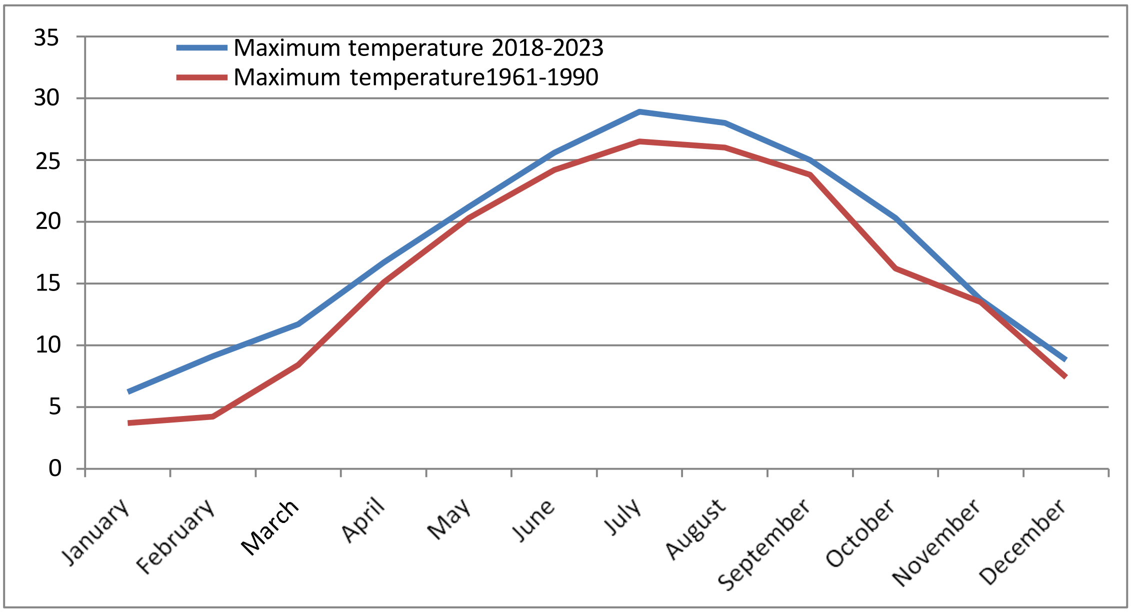

Figure 2. Graph of maximum atmosphere temperature (°C) according to the months for the periods 1961-1990 and 2018 – 2023

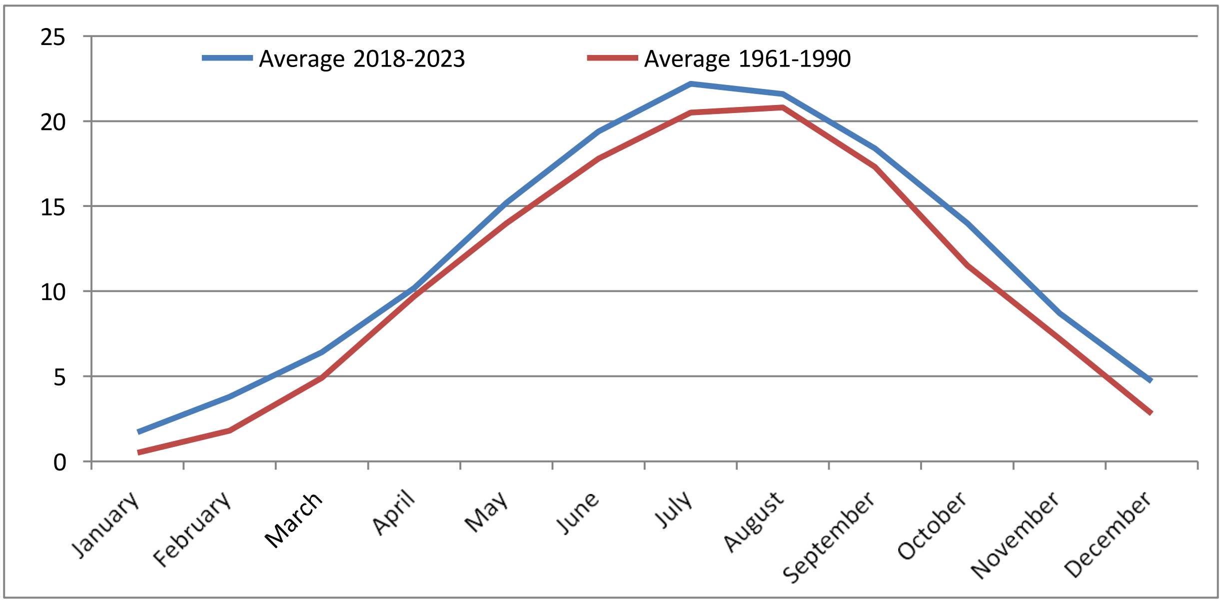

Figure 3. Graph of average atmosphere temperature (°C) according to the months for the periods 1961-1990 and 2018 – 2023

The highest increase in temperatures has occurred in the periods February - March and June - August. Based on the data's analyzed, it can be argued that the significant increase of temperatures has directly affected the performance of plant cultivation. The increase in temperature has been determined by other studies but the growth rates are higher. Temperature is one of the most important ecological elements. It determines the intensity of various plant functions such as germination, photosynthesis, respiration, accumulation of organic matter.

By integrating the data records on temperatures and precipitation through Bagnoulus-Gaussen ombrothermic diagrams, were determined the drought periods in Korça region.

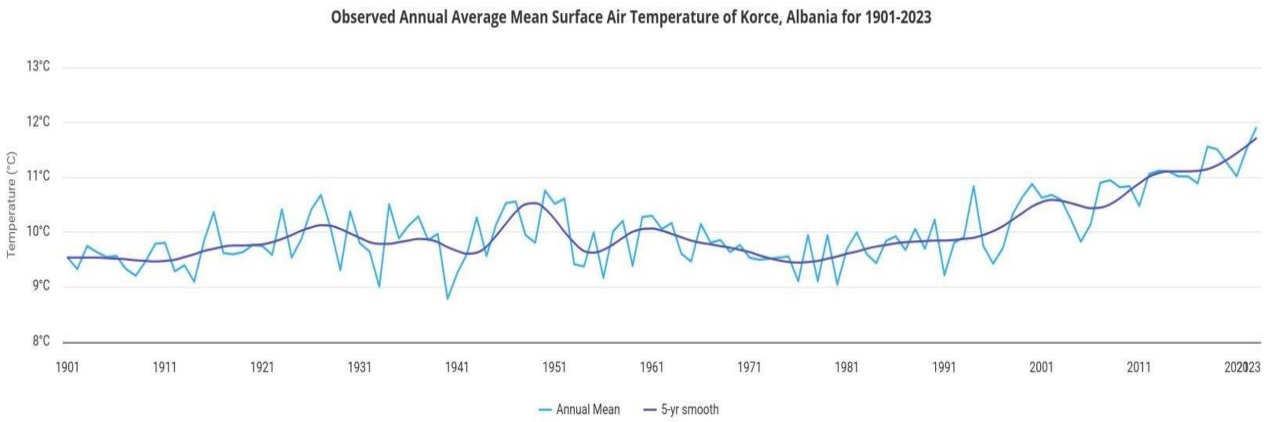

Figure 4. Average annual temperature Korçë 1901-2023

Data used from the Climate Change Knowledge Portal (CCKP). World Bank Group, Climate Change Knowledge Portal.

The average annual temperature of Korçë 1991-2020 compared to the years 1961-1990 has increased by 0.74 °C.

By integrating the curves of average monthly temperature and monthly precipitation, was determined the drought period.

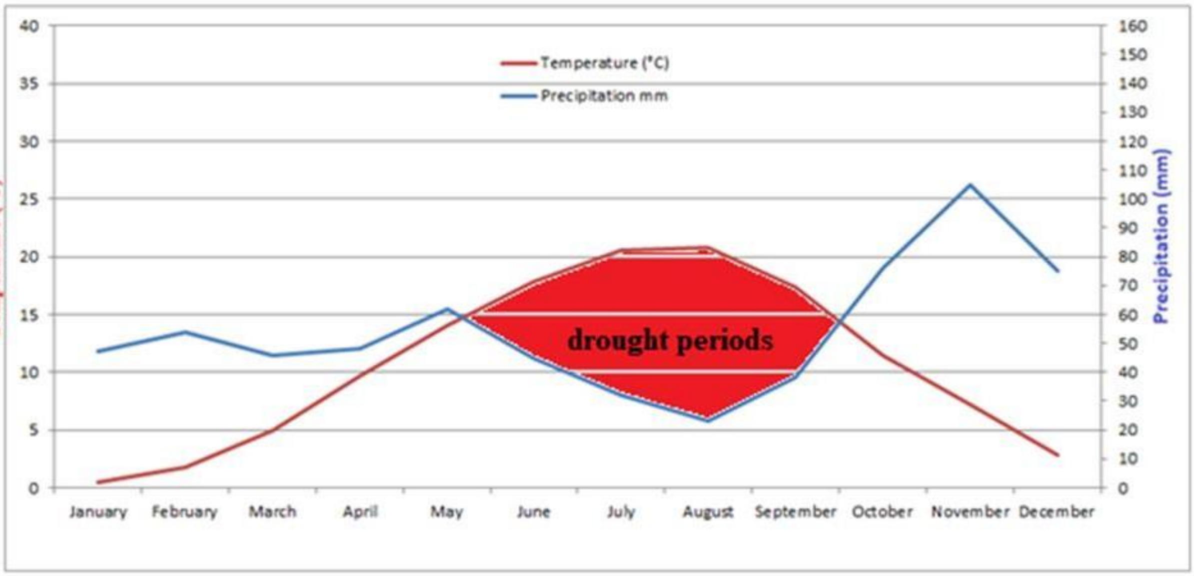

Figure 5. Ombrothermic diagram of Bagnoulus & Gaussen for drought periods in Korça region for (2018 – 2023)

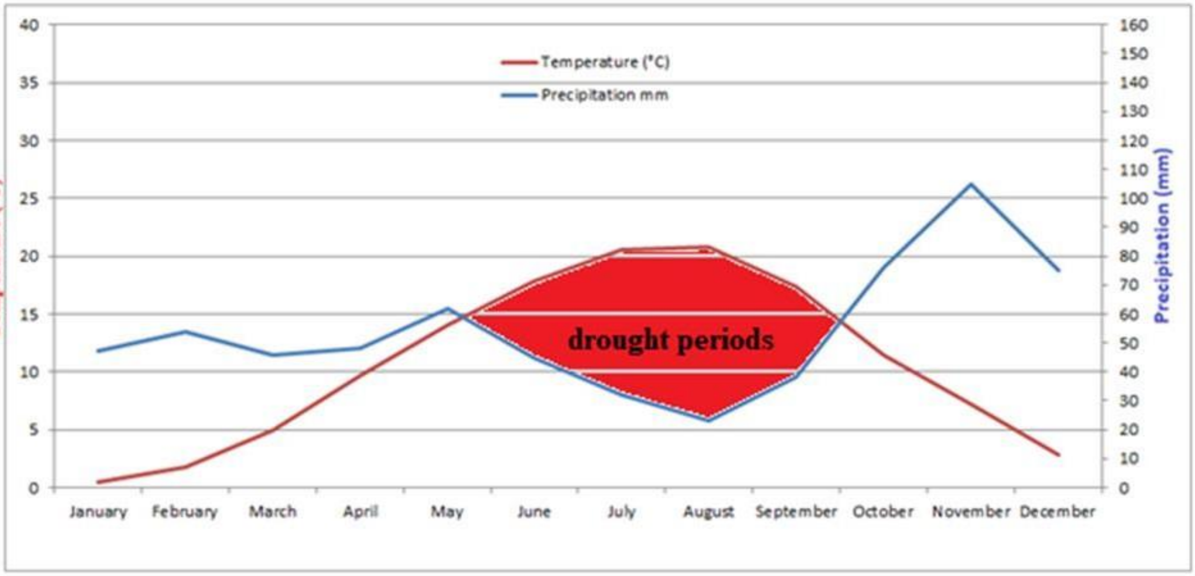

Figure 6. Ombrothermic diagram of Bagnoulus & Gaussen for drought periods in Korça region for (1961 – 1990)

Based on the data's shown in Figures 5 and 6 presented above, it can be concluded that climate changes has significantly influenced drought periods. From the graphic analysis, on the agro-climatic context, it is observed that drought for the period 1961 - 1990 in the region of Korça, starts from the first 10 days of June and continues until the second 20th of September (Figure 6). On the other side, for the period 2018 – 2023, drought starts from the first 10 days of June and continues until the second 20th of October (Figure 5). Based on that, it is easily identified that there is a one month extension of the drought period. There are also significant changes in monthly precipitation for this periods. That data‘s observed indicate a trend of increased temperatures throughout the year, while it is difficult to conclude the same for the amount of precipitation.

From the study of these diagrams, we come to the conclusion that climatic factors affect the development of plants not separately but integrated.

Climate changes in the Korça region are also evidenced by the sum of active temperatures equal to or higher than 10°C (∑TA>10°C). These data are presented in Fig. 7.

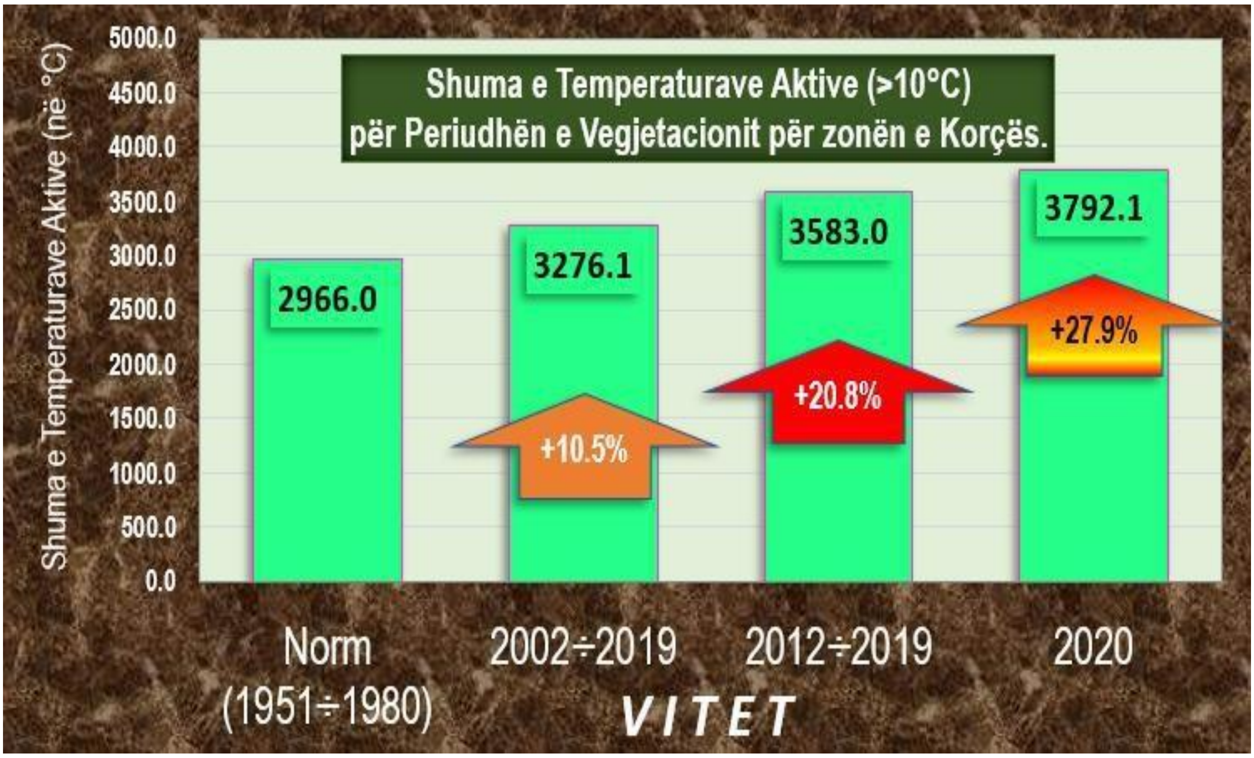

Figure 7. Climate changes in the Korça region in the sum of active temperatures equal to or higher than 10°C (∑TA>10°C).

For Korça region during 2020, the vegetation period was observed from April 9 to November 11 with a duration of 216 days. Frosts did not prevent the vegetation period from ending prematurely both at the beginning and at the end of the vegetation. The frost-free period was observed from April 3 to November 21. Overall, only 55 days with frost were recorded during this year, compared to 87 days of average value observed in the previous period 2002 - 2019.
The most accurate assessment of climate change is the use of scientific methods to collect and process climate data for a specific area. To draw valid conclusions, the comparison of processed data must include long periods of time. The use of this practice is necessary to avoid "accidental" changes in a short period of time.
Based on these studies, the plants most stressed by high temperatures in the Korça region are small beans, potatoes, and cabbage.
The optimal temperatures for flowering and pod formation are 18 – 25ºC. This is the period when beans are very sensitive to this factor. When temperatures are around 29 – 32ºC accompanied by a lack of soil moisture, they cause massive flower drop, preventing the pollination of the grains. The higher sensitivity of the bean plant is due to significant temperature changes. [Maho and Mero, 2018].
Potatoes are very sensitive to high temperatures above 25 – 30°C. The continuous and long-term action of high temperatures above 30°C during the formation of tubers, especially at night, brings to the so – called ecological degeneration. As a result, there is a decrease in the quantity and quality of production and production capacity of tubers for the following year. [Maho et al, 2019].

Cultivar selection is one of the best ways to adapt to negative climate changes. The best examples regarding this are the alpha cultivar in barley, Voskopoja peas, etc. [Maho et al, 2018; Maho et al, 2025]. These two cultivars have created the possibility of planting in the fall (barley and fodder peas are traditionally planted in the spring), contributing to a 2 – 3 times increased production.

Another equally important way is to change the technology of cultivating agricultural crops. Changing the planting dates has been quite effective as it affects the modification of the phenological periods of plants by shifting them to periods more suitable for the plants.

For beans, potatoes, and sugar beets, planting 10 days earlier than traditional planting dates has resulted in very positive way. [Maho and Skënderasi, 2020].

For wheat and barley, the optimal planting date has been extended by 10 days. The optimal planting date today is recommended to be October 1 to November 10.

The increase in temperatures has had a positive impact on corn productivity. Before the 1990s, the use of corn hybrids up to class 500 (with a cycle of 116 – 120 days from germination to full maturity) was recommended. In recent years, class 600 corn hybrids (with a cycle of 121 – 130 days from germination to full maturity) have also been used.

The extent to which climate change adaptation will reduce losses remains unknown and open for disscusion (Auffhammer & Schlenker, 2014; Challinor, et al., 2014; Moore et al., 2017). According to Hultgren et al 2025, climate change adaptation will lead to increased incomes that will alleviate 23% of global losses in 2050.

Radical climate change highlights the urgent need for a climate-smart agriculture (CSA) platform. Climate-Smart Agriculture (CSA) can be defined as an approach to transforming and orienting agricultural development according to the new realities of climate change (Lipper et al. 2014). 1 The most widely used definition is provided by the Food and Agriculture Organization of the United Nations (FAO), which defines CSA as "agriculture that sustainably increases productivity, increases resilience (adaptation), reduces/removes greenhouse gases (mitigation) where feasible, and enhances the achievement of national food security and development objectives". In this definition, the main goal of CSA is identified as food security and development (FAO 2013a; 2 Lipper et al. 2014 1); while productivity, adaptation and mitigation are identified as the three interrelated pillars necessary for achieving this goal.

Based on our experimental studies and the implementation of the Climate Smart Agriculture (CSA) platform, we recommend:

- Selection and cultivation of cultivars that can resist drier conditions. Use of indigenous genetic resources.
- Change in planting time. Generally, spring crops are planted 10-15 days earlier compared to planting times 30 years ago.
- Agricultural rotation is very important to the impacts of climate change.
- Water-efficient irrigation: Implementing technologies such as drip irrigation and optimizing water use can minimize water loss. Increasing water storage capacities by investing in new irrigation technologyes. Gravity irrigation with underground pipes is of big impact for the Korça area.
- Encouraging farmers to diversify their sources of income can reduce their dependence on agriculture and make them more resilient to climate change.
- Providing farmers with access to timely and accurate weather forecasts and climate predictions is essential for accurate decision-making.

- Crop and livestock insurance can help farmers manage financial risks associated with climate change disasters.
- Agroforestry:

  Integrating trees into agricultural systems can provide shade, reduce soil erosion, and increase water infiltration.

Ecosystem restoration:

Ecosystem restoration: Restoring degraded ecosystems can provide multiple benefits, including carbon sequestration and improved water regulation. Adaptation is an ongoing process, requiring ongoing effort and adjustments as climate change impacts evolve. It is also important to recognize that adaptation strategies may need to be tailored to specific local contexts and farming systems.

4. Conclusions

From the data presented an increase in the average air temperatures was observed. For the corresponding period 2018 – 2023 compared to the years 1961-1990 the average minimum atmosphere temperatures was increased by 0.85 °C, average maximum temperature was increased by 2.15 °C, while the average temperature show ed an increase by 1.5 °C.
The highest increase in temperatures occurred in the periods from February to March and from June to August.
In the agro-climatic context, for the period 2018 – 2023, drought has started from the first 10 days of June and continuing until 20th of October. Based on that, it is concluded that there is a one month extension of the drought period. For the same period, significant changes in the monthly precipitation have occurred. It is observed a trend of increased temperatures throughout the year, while it is difficult to conclude the same for the amount of precipitation.
In the last decade, the average number of days with snow in Korça plain has been reduced by about 10 days. The average start date of snow has been postponed for about a month.
The selection of cultivars is one of the best ways of adapting to negative climate changes. Among the best examples in this direction is the alpha cultivar in barley, Voskopoja pea, etc. These two cultivars have created the possibility of planting in the autumn (barley and fodder peas are traditionally planted in the spring), influencing in increase the 2-3 times of production.
Another an important way is to change the cultivation technology of agricultural crops. The change in planting dates has been quite effective as it affects the modification of the phenological periods of plants by moving them to more suitable periods for the plants.
For the bean, potato, sugar beet, planted 10 days earlier than the traditional planting dates, it turned out to be quite positive.
For wheat and barley, the optimal sowing period has been extended by 10 days. The optimal planting period today is recommended from October 1 to November 10.
The increase in temperatures has had a positive impact on maize productivity. In recent years, is being used the 600 class of corn hybrids (with a cycle of 121-130 days of germination - full ripening)
Climate change adaptation in agriculture involves adapting agricultural practices to minimize negative impacts and take advantage of potential benefits from a changing climate. This includes strategies such as adopting drought-resistant crops, improving water management, and diversifying agricultural systems. Effective adaptation also requires long-term planning, access to information and resources, and support for farmers.

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A SURVEY OF TEACHER PERSPECTIVES ON THE INTEGRATION OF MATHEMATICAL CONCEPTS INTO STEM EDUCATION IN THE KORÇA REGION

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Abstract
In recent years, the inclusion of STEM (Science, Technology, Engineering and Mathematics) in education has increasingly taken on an important place in the pre-university education curriculum in Albania. This encourages a contemporary educational reform that aims to promote interdisciplinary learning. In this regard, it is necessary to adapt the concepts of each discipline, including mathematics, to the requirements and principles of this innovation in education.
Our study highlights the views of mathematics teachers in the Korça region on integrating mathematical concepts into STEM and the benefits of this approach in teaching.
We conducted our research in two phases. In the first phase, a questionnaire was conducted with mathematics teachers in the Korça region, with the aim of assessing their knowledge of STEM. In the second phase, an experiment was conducted with two ninth-grade classes, where in one class STEM was used to address the concept of function, while in the other the teaching was carried out in accordance with the currently implemented curriculum.
The results of the study show that the premises are very good for the efficiency that the use of STEM has in assimilating mathematical concepts, especially in the practical and interdisciplinary aspect. Also, teachers are willing to integrate STEM into education if the necessary conditions for its effective implementation are met.

Keywords: *STEM, mathematical concepts, Pre-university education, innovative teaching, problem solving.*

Introduction

In an increasingly digitalized society, the mathematics curriculum must adapt to contemporary demands by integrating the use of digital technologies into teaching and learning processes. The use of mathematical software, simulations, interactive applications, and visual tools supports students in developing a deeper understanding of abstract concepts, while also fostering their abilities in mathematical modeling and in solving real-world problems. (Pierce & Stacey, 2010).
A fundamental aspect of the contemporary curriculum is the connection of mathematics with everyday life and with other fields such as science, engineering, technology, and economics. This integration helps students recognize mathematics as a universal language that explains real-world phenomena and supports technological and economic development. (Foster, 2023:English & Sriraman,2010).
When mathematical concepts are placed within contexts that are familiar to students, learning becomes more meaningful and motivating (Tutal, 2023).
Mathematics becomes more meaningful and engaging for students when it is connected to real-life situations and concrete everyday experiences. Designing a curriculum that incorporates tasks, projects, and examples grounded in practical contexts contributes to

increased student motivation and engagement, while also fostering a deeper understanding of mathematical concepts. (Sujatha & Vinayakan, 2023).
A contemporary curriculum should be grounded in rich and flexible teaching methodologies that incorporate the use of digital resources, visual tools, and hands-on activities, thereby making the learning process more active and engaging. (Vale & Barbosa, 2023).
In line with the discussion above, it is important to emphasize that over the past decade, education worldwide has undergone a transformative shift through the integration of STEM (Science, Technology, Engineering, and Mathematics) into the teaching process. This approach brings together disciplines that have traditionally been taught separately, creating opportunities for interdisciplinary learning and for the development of competencies essential to modern society. (Portillo-Blanco et al., 2024).
STEM integration has become essential in responding to the demands of an increasingly digital and technology-driven world. Activities that connect theoretical knowledge with real-world practice support students in developing critical skills, analyzing complex situations, and generating innovative solutions. (AlAli, 2024).
Furthermore, STEM programs make teaching more engaging, interactive, and closely connected to everyday life, preparing students to be capable, aware, and responsible when facing the challenges of the 21st century. (Goos et al., 2023).
In this context, the present study aims to analyze the main challenges associated with efforts to integrate STEM into the mathematics curriculum at the secondary education level in Albania. To achieve this, a questionnaire was developed for mathematics teachers in the Korça district, aiming to examine how STEM is incorporated into the teaching process, the outcomes achieved thus far, and the potential challenges for the future. To enrich the analysis, classroom sessions were also conducted in two ninth-grade classes, focusing on the concept of functions, where students were assessed before and after the implementation of STEM-based activities, in alignment with the knowledge and competencies outlined in the curriculum.
The analysis of data collected from the teachers‘ questionnaire and the students‘ tests highlights the effectiveness of STEM integration in mathematics teaching, as well as some of the challenges that arise during its implementation.

Literature Review

The most recent reform of the educational curriculum in Albania was undertaken in 2014, bringing significant changes to the structure and content of pre-university education. According to this reform, secondary education begins in the sixth grade and concludes in the twelfth grade. The mathematics domain within the Albanian curriculum is organized around five main thematic areas: Number, Measurement, Geometry, Algebra and Functions, and Statistics and Probability (ASCAP, 2014).
In line with the objectives of this study, the focus is placed on analyzing the content of the ―Algebra and Functions‖ thematic area, with particular emphasis on the treatment of the concept of functions. This concept is examined specifically through the lens of the STEM approach, due to its strong connection with real-world applications and its potential for developing critical thinking, mathematical modeling, and problem-solving skills.
An analysis of the current mathematics curriculum shows that the number of hours dedicated to the ―Algebra and Functions‖ topic progressively increases from one educational level to the next, reflecting the importance attributed to this component in the mathematical development of students (ASCAP, 2014).

The teaching of functions in secondary education begins as early as the sixth grade. An analysis of the curriculum and textbooks reveals the absence of certain fundamental concepts that are essential for supporting the gradual development of students' understanding of functions and their accurate formulation, including concepts such as the Cartesian product and relations.

The lack of foundational ideas that facilitate the transition from intuitive to formal understanding can hinder students' conceptual development. Various studies indicate that students at this age are cognitively capable of engaging with precise mathematical definitions, provided that these are built upon well-structured prior concepts that are connected to meaningful experiences (Mickey & McClelland, 2025).

From the analysis of the allocation of instructional hours and the conceptual content within the ―Algebra and Functions‖ thematic area, it is observed that, although the concept of functions is addressed across multiple grade levels, this treatment is not always progressive or coherent according to vertical curriculum analysis. The transition from numerical sequences and simple pairings to linear and quadratic functions is accompanied by an increase in mathematical formalism, while a systematic deepening of conceptual understanding is often lacking in the early stages. The literature emphasizes that the way in which function-related concepts are organized directly affects students' level of mathematical comprehension and their ability to apply knowledge in real-world contexts. (OECD, 2019).

Furthermore, according to Tall (2013), the absence of a gradual construction of understanding makes the transition from algebra to other mathematical disciplines challenging for students. In grades 10–12, the conceptual load increases significantly, encompassing various elementary functions, graph transformations, as well as the concepts of derivatives and integrals. This high concentration of content, combined with a predominantly procedural approach, risks leading to mechanical learning and a lack of deep mathematical understanding (Richland, Stigler & Holyoak, 2012).

In this context, the analysis of the current curriculum content highlights the need for a qualitative reorganization in the teaching of functions, where this concept serves as a connecting axis between grade levels, mathematical representations, and real-world applications. International literature emphasizes that STEM integration and the use of educational technology offer effective opportunities for the gradual construction of function understanding and for strengthening the connection between theory and practice ((Lesh & Lehrer, 2003; OECD, 2019).

Building on the analysis of curriculum content and the issues identified in the teaching of the concept of functions, this study aims to empirically examine the effects of an alternative instructional intervention, such as STEM.

Research Methodology

This study aims to analyze the perspectives of mathematics teachers in the Korça region regarding the integration of mathematical concepts into STEM and the benefits of this innovation in teaching. For this purpose, the concept of functions was selected as an illustrative example.

Our research was conducted in two interconnected phases, with the goal of evaluating and integrating STEM into mathematics teaching, as well as analyzing its effectiveness in the development of students' understanding of the concept of functions.

- *In the first phase, a questionnaire was administered to mathematics teachers in the Korça district, aiming to assess their knowledge of STEM.*

For the collection of empirical data, the questionnaire was completed by 116 secondary education mathematics teachers in the Korça district. The questionnaire was distributed via Google Forms to groups of teachers who had participated in professional development training programs organized by the Agency for Quality Assurance in Pre-University Education (ASCAP), specifically during the following modules:

- *―Development of Teachers' Practical Skills for Implementing Interactive Methods in the Teaching Process for Mathematics Teachers‖*
- *―The Use of Effective Teaching–Learning Methods during Mathematics Lessons‖*

The questionnaire was structured and designed to collect both quantitative and qualitative data. Its questions were based on teachers' knowledge of STEM, its use, and the teaching of the linear function concept, in order to later establish a connection with the second phase of our study. The questionnaire included closed-ended questions, formulated using a Likert scale, to measure teachers' attitudes and perceptions regarding the topics addressed, as well as open-ended questions that allowed participants to express their individual opinions and experiences.

In total, the questionnaire contained 21 questions covering demographic information, teaching experience, the treatment of the function concept, teachers' knowledge of STEM, and their use and interest in integrating it into instruction. The collected data were analyzed to identify the current state of mathematics curriculum implementation, STEM integration in teaching, and the effectiveness of this innovation in the assimilation of mathematical concepts, particularly from practical and interdisciplinary perspectives. Data processing was carried out using SPSS software.

- *In the second phase of the study, a quasi-experimental research design was used, involving two groups of 20 ninth-grade students each. The aim was to examine the effects of STEM-based instructional approaches on students' understanding of the concept of functions. The experimental group received instruction through STEM-integrated teaching methods, while the control group was taught according to the existing curriculum.*

The selected groups were matched in terms of performance level, based on the average mathematics grades. Both groups followed the same program in accordance with the national curriculum and used the same mathematics textbook from the same publisher. The same test was administered to both groups. The test consisted of nine exercises, covering questions at all levels, including multiple-choice items, fill-in-the-blank questions, applications, and problem-solving situations.

The topics selected to be taught using two different approaches were:

1. Linear function
2. The graph of the linear function in the form.
3. The slope coefficient of the linear function graph.

After the testing, the students' responses from both groups were analyzed, and the respective comparisons were made.

Results and Discussion

In the first phase of the study, a questionnaire was administered to mathematics teachers in the Korça district to assess their knowledge of STEM. Analysis of the demographic composition of the sample shows that the majority of respondents were female (70%), while males accounted for 30% of the sample.

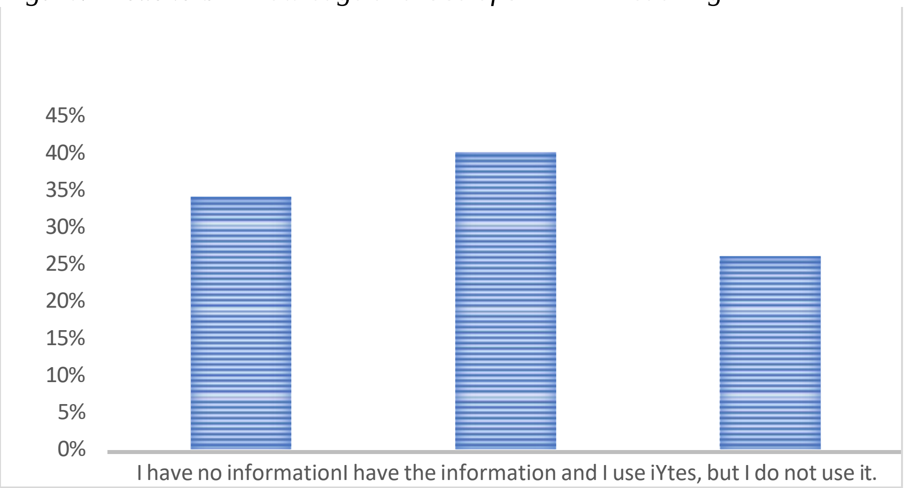
The sample presents a balanced distribution in terms of both age and teaching experience, reflecting a mix of teachers in the early stages of their professional careers and those with extensive experience. The predominance of the 30–39 age group and teachers with over 20 years of experience, together with a considerable presence of younger teachers with shorter tenure, provides a diverse and representative basis for analyzing perceptions and practices related to STEM

Based on the questionnaire data, teaching activity is predominantly carried out in rural areas, with 60% of teachers reporting that they conduct their lessons in villages. A significant proportion, 33%, teach in urban areas, while only 7% of respondents report a combination of both contexts. This distribution indicates a higher representation of the rural context in the sample, suggesting that the study's findings primarily reflect the educational reality of rural schools, while also providing a comparative perspective with urban areas.

***Results from the First Section**: Analysis of Teachers' Responses on STEM*

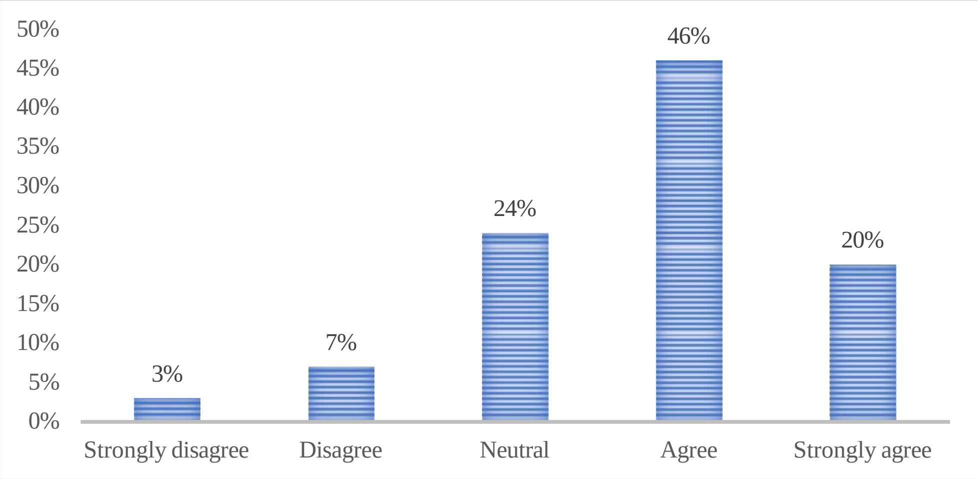
Regarding information on STEM in education, 40% of respondents reported that they possess knowledge of STEM and apply it in their teaching practice, 26% indicated that they have knowledge but do not use it, while 34% declared a lack of information. These findings highlight the need to increase awareness and to develop structured professional development programs for teachers (see Fig. 1).

Figure.1 Teachers' Knowledge and Use of STEM in Teaching



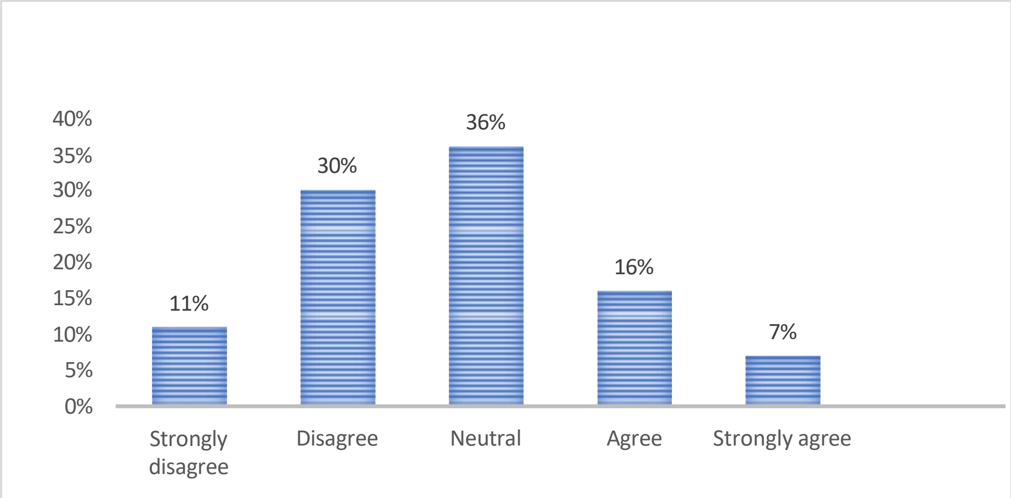
Regarding the interest in training related to STEM teaching, the results indicate a generally positive attitude toward this innovation. Specifically, 46% of respondents agreed and 20% strongly agreed on the need for STEM-related training, reflecting a considerable willingness and interest among teachers to enhance their instructional practices through this initiative (see Fig. 2). These results are statistically significant (chi-square test, $\chi^2(4) = 69{,}025$ p-values = 0).

Figure 2: Teachers‘ Interest in Training on Integrating Mathematics with STEM Fields



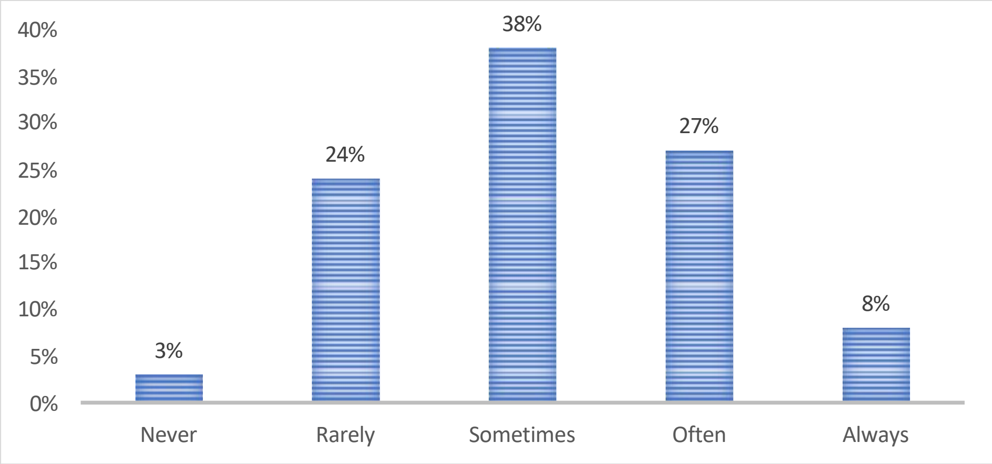
From another perspective, regarding the opportunities that schools have to implement STEM in teaching, the results indicate that the conditions provided by schools in the Korça district are generally not favorable. This situation represents a real obstacle to the effective implementation of STEM in instruction (see Fig. 3).

Figure 3: Access to Tools and Resources for Integrating STEM into Teaching



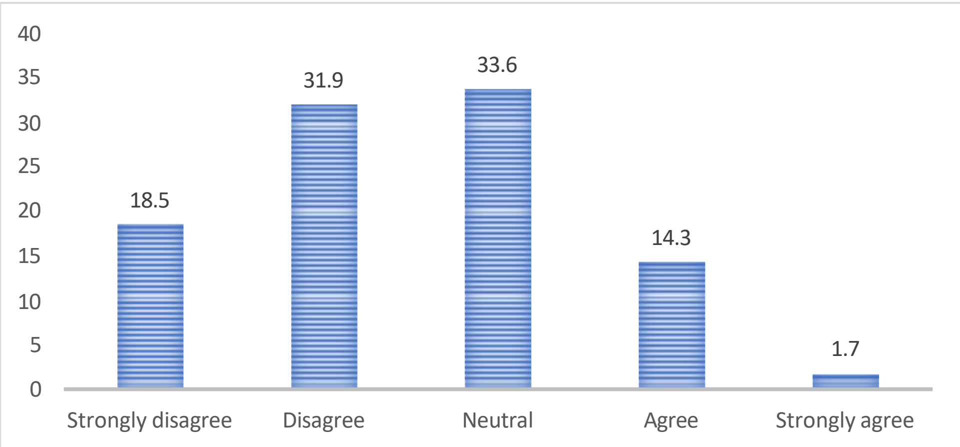
To establish a connection between the first and second phases of the study, the results concerning the use of technology in explaining the concept of linear functions, as well as teachers‘ ability to design activities linking functions to STEM fields, were taken into consideration. Based on these results, it is observed that most teachers use technology '*sometimes*' in their teaching, while the frequency of '*always*' using it remains low (see Fig. 4). These results are statistically significant (chi-square test, $\chi^2(4) = 47.513$, p-values = 0).

Figure 4: Frequency of Technology Use to Support Students‘ Understanding of Functions



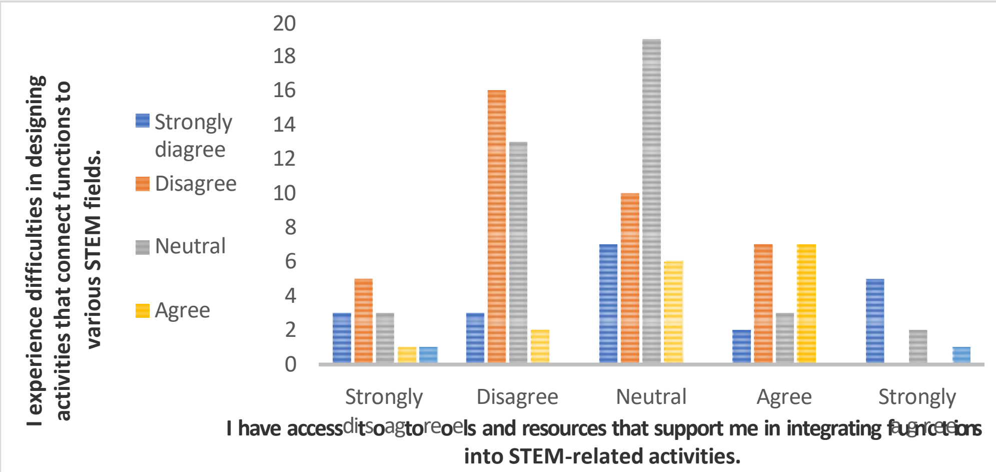
Regarding the distribution of teachers‘ attitudes toward integrating STEM into instructional practice, specifically in creating activities that link the concept of functions to STEM fields, the results show that responses are mainly concentrated in the '*Neutral*' and '*Disagree*' categories (see Fig. 5)

Figure 5: Challenges in Designing Activities Linking Functions to STEM Disciplines



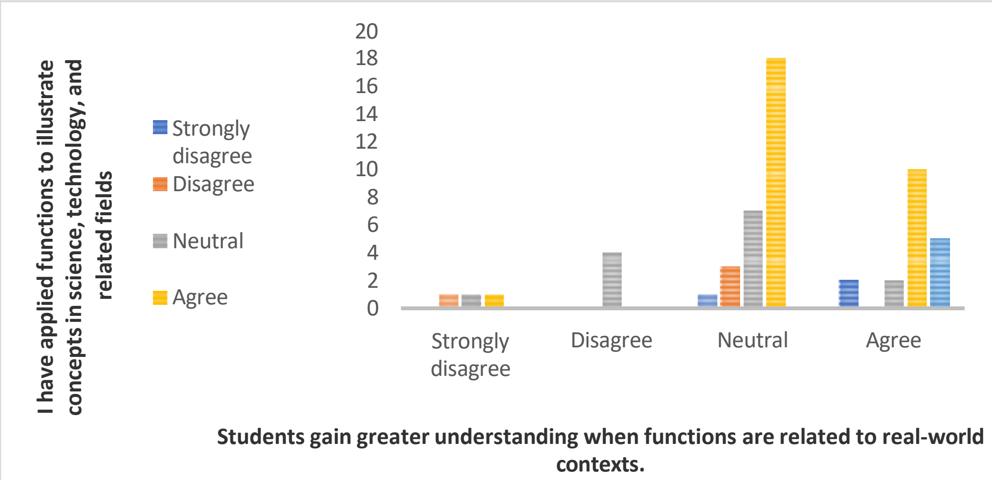
The analysis of the relationship between the two variables—*'I have access to tools or resources that help me integrate functions with STEM'* and *'I find it challenging to create activities that link functions to STEM fields'*—indicates that teachers who report higher levels of access to tools and resources experience fewer difficulties in developing the corresponding activities. This relationship is clearly reflected in the distribution of responses across the categories presented in Figure 6**.** Furthermore, the application of the chi-square test between these two variables yielded a value of $\chi^2(12) = 41.865$ with p-value = 0.001 (< 0.05), confirming the existence of a statistically significant relationship between them.

Figure 6: Relationship Between Resource Availability and Challenges in Integrating Functions with STEM Fields



Additionally, the relationship between the two variables—*'I have used functions to explain concepts from science, technology, and other fields'* and *'Students benefit more when functions are connected to real-life situations'*—was analyzed. The analysis indicates that teachers who link the concept of functions to real-life situations are also those who apply this concept more frequently across STEM fields, as reflected in the distribution of responses presented in Figure 7. To statistically assess this relationship, the chi-square test was applied, yielding a value of $\chi^2(12) = 29.108$ with p-value $= 0.004$ (< 0.05), thereby confirming the existence of a statistically significant relationship between these two variables.

Figure 7: Association Between the Use of Functions Across STEM Fields and Real-Life Applications



Results from the Second Section: *Experiment with Two Groups of Ninth-Grade Students*
In the study, two groups of students with the same level of performance in Mathematics were selected, using the same textbook and curricular program. Both groups completed a diagnostic test consisting of nine exercises, including multiple-choice, completion, application, and problem-solving tasks, to assess their understanding of the concept of functions and the relationship between variables before and after the instructional intervention.
In the control group, teaching was based on textbook explanations and exercises, without clear connections to real-world problem situations, thereby limiting the practical application of the concept of linear functions.
Topics covered with this group include:

1. Linear functions
2. The graph of a linear function
3. The slope of the linear function graph

The lesson began with a review of prior knowledge on linear functions and their graphs, using guiding questions such as:

- What is a linear function?
- What does the graph of a linear function represent?
- What is the form of a linear function?
- What do n and k represent in the formula?

Subsequently, new knowledge was introduced by adding the linear function form to a table. The lesson continued with the presentation of the linear function graph and an explanation of how it is constructed within the coordinate plane.
After this, the theoretical definition of the slope (coefficient) was presented, along with an interpretation of its values. The method for calculating the slope when the coordinates of two points are known was also demonstrated.
In the experimental group, we focused on incorporating as many STEM elements as possible. The aforementioned topics were addressed through real-life problem situations related to the field of physics.

The concept of the slope was connected to the steepness of the linear function graph, illustrating the difference between positive, negative, and zero slopes. Following the theoretical explanation, various graphs were demonstrated to the students using the GeoGebra application, clarifying how the graph changes depending on the slope value.
Subsequently, students used GeoGebra to construct their own graphs, applying the concepts to real-life variation problems, some of which were drawn from the PISA mathematics test. https://www.acer.org/files/pisa_relitems_maths_2.pdf
To better understand the effectiveness of the STEM-oriented teaching model in conveying the concept of linear functions, pre-test and post-test results were compared. This assessment instrument was designed not only to measure students' algebraic knowledge but also to evaluate how they understand and interpret functional relationships, construct mathematical models, and apply linear functions to real-life situations.
The test included a variety of exercises, organized from simpler to more complex tasks, aiming to comprehensively reflect different levels of understanding. The first exercise, a multiple-choice task, focused on calculating the slope. The second assessed the ability to determine whether a point lies on a line. The third aimed to test understanding of the structure of a linear function. In the fourth exercise, students worked on solving linear equations, while the fifth, a fill-in-the-blank task, checked basic theoretical knowledge of the concept. The sixth exercise required finding function values, and the seventh placed the linear function in a real-life context, specifically a physics problem involving speed, time, and distance.
The eighth exercise had a modeling and interpretive character, inviting students to derive functional relationships from real data, interpret the dependency between two quantities, and predict unknown values through mathematical reasoning. The test concluded with the ninth exercise, a complex real-world problem that integrated mathematics with physics and economics. This final task required constructing a linear function, interpreting its coefficients in relation to the concrete situation, and justifying the solution from both mathematical and practical perspectives.
The results indicate an overall improvement in students' performance following the implementation of the STEM-based instructional intervention. The average score increased from 7.1 to 7.9, demonstrating that students achieved a better and more functional understanding of the concept of linear functions. This progress suggests that the integration of STEM elements has helped students not only to better assimilate theoretical content but also to perceive the linear function as a useful tool for describing and solving real-world situations (see Tab. 1).

Table 1: The Impact of a STEM-Based Instructional Intervention on Test Results

Exercise No.	STEM Competence	Pre-test: Correct Answers (%)	Post-test: Correct Answers (%)	Progress (%)
1	Recognizing linear relationships in real-world physical contexts (Science)	60	75	**+15**
2	Interpreting a linear function in the context of motion (Mathematics)	55	75	**+25**
3	Understanding the fundamental concept of a function in a theoretical context (Mathematics)	75	80	**+5**
4	Interpreting data and functions through graphs (Technology)	65	85	**+20**
5	Understanding concepts at a formal level	50	60	**+10**
6	Working with algebraic expressions and operations (Engineering)	60	70	**+10**
7	Application in motion (Science)	70	85	**+15**
8	Creating models based on data (Technology)	35	55	**+20**
9	Applying concepts in economic contexts (Integrated STEM)	40	55	**+15**

A paired-samples *t*-test was employed to examine the statistical significance of students‘ progress on the selected exercises, as measured by pre-test and post-test results. All assumptions required for the application of the test were satisfied. The analysis yielded a *p*-value= 0, indicating a statistically significant improvement in student performance.

Conclusions

This study highlights the perceptions of mathematics teachers in the Korça region and evaluates the effectiveness of integrating STEM into teaching. The results indicate that, although teachers‘ knowledge of STEM is moderate, the majority are motivated to implement this innovation in their teaching, provided they have access to the necessary training, tools, and resources for its application.

Statistical analyses indicate significant relationships between access to resources and teachers‘ ability to design activities that link mathematical concepts with other STEM fields, highlighting the necessity of both infrastructural and institutional support.

The student experiment conducted on understanding the concept of functions in ninth-grade classes shows that using real-life problem situations, combined with technological tools such

as GeoGebra, substantially improves conceptual understanding, graphical interpretation, and the ability to apply linear functions in various practical contexts.
From the analysis of the results obtained from pre- and post-STEM implementation testing, we emphasize the following:

- *Students have improved their ability to link real-life situations to the algebraic expression of a linear function, gaining a better understanding of the roles of the slope and the constant term.*
- *STEM has helped students better understand the relationships between variables.*
- *STEM has primarily contributed to strengthening and clarifying theoretical content.*
- *Students have become more capable of interpreting the graph of a linear function and understanding the relationship between changes in variables.*
- *Students have developed improved skills in working with functions as mathematical models, not just as formal expressions.*
- *STEM is particularly effective in tasks that require mathematical modeling and practical interpretation of results.*
- *Students have developed skills in constructing and interpreting a linear function within the context of various fields.*

In summary, integrating STEM into mathematics teaching helps students gain a deeper understanding of mathematical concepts that are connected to real-life situations and promotes a more active and meaningful learning experience. To enhance the effectiveness of this innovation, it is essential to provide professional development for teachers, appropriate teaching resources and tools, as well as a progressive and coherent curriculum.

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BRIDGING THE DIGITAL DIVIDE IN RURAL HIGHER EDUCATION: UNIVERSAL DESIGN FOR LEARNING AS A DRIVER FOR REGIONAL EQUITY

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Abstract

The digital divide continues to pose a critical barrier to equitable regional development, particularly in the context of higher education in rural and underserved areas. This paper investigates how Universal Design for Learning (UDL) can be applied as a strategic framework to address digital inequalities and promote inclusive and sustainable academic practices in regional universities. Drawing on the experience of Fan S. Noli University in Korçë and recent initiatives such as the Erasmus+ HAWKING project, the study highlights the role of UDL in creating flexible, accessible, and learner-centered environments. By embedding UDL principles into curriculum planning, digital course design, and staff training, regional higher education institutions can improve educational equity and student engagement. The findings suggest that UDL offers a transformative opportunity to align digital transformation with regional equity goals. The paper concludes with policy recommendations to support inclusive digital ecosystems, emphasizing the need for investment in infrastructure, teacher capacity-building, and cross-sector collaboration to ensure that all students, regardless of geographical or socio-economic background, benefit from quality higher education. In doing so, the study positions UDL not only as a pedagogical tool but as a driver of smart, inclusive regional development in times of rapid change.

Keywords: *Universal Design for Learning, Digital Inclusion, Regional Higher Education, Educational Equity*

1. Introduction

Recent transformations in European higher education have increasingly brought attention to the need for learning environments that are inclusive and capable of responding to students with diverse educational profiles. In regional universities, these challenges become particularly visible, as disparities in prior educational preparation often intersect with students' social and economic backgrounds. Students coming from rural areas, in particular, tend to face unequal access to technology, limited cultural capital, and fewer opportunities for academic support. As van Dijk (2020) and Warschauer (2003) have argued, digital inequalities in education are not limited to technical access alone, but are closely connected to educational skills and to the capacity to use technological tools in meaningful and sustainable ways.

Within this context, traditional models of university teaching, largely built around written texts, linear lectures, and standardised assessment formats, often prove insufficient for addressing the diversity of student needs. This is especially evident in disciplines such as literary studies, where understanding complex texts, constructing interpretations, and engaging in analytical discussion require consolidated abilities in critical reading and academic writing. When teaching practices lack flexibility and do not offer alternative pathways for engagement, students may remain passive participants in the learning process, even when their intellectual potential is considerable.

Universal Design for Learning (UDL) has emerged as a pedagogical approach that responds directly to these challenges by proposing a more flexible and inclusive model of course design. Rather than adapting teaching practices retrospectively to individual difficulties, UDL promotes a proactive framework that offers multiple ways of presenting content, alternative forms of expression, and varied modes of student engagement (Meyer, Rose, & Gordon, 2014; CAST, 2018). At its core, UDL recognises student diversity as a starting point for pedagogical design. Importantly, this approach does not aim to lower academic standards, but to broaden the means through which students can access, process, and demonstrate knowledge.

Despite its growing presence in international educational discourse, the application of UDL in higher education remains uneven, particularly in regional and peripheral contexts. In Albania and the wider Balkan region, this gap is especially pronounced. Policies related to inclusion and digitalisation are often articulated at a strategic level, yet limited attention is paid to how these principles are translated into everyday teaching practices. It is precisely within this space that the Erasmus+ project HAWKING – Harvesting (Digital) Alternation in Ways that Knock-down Inaccessibility of New Generations is situated. The project aims to support higher education institutions in strengthening their capacities for inclusive digital transition by reducing structural and pedagogical barriers that affect students from diverse social and educational backgrounds.

This article is directly positioned within the framework of the HAWKING project and seeks to contribute to the discussion on UDL through an in-depth case study conducted at the University ―Fan S. Noli‖ in Korçë. The study focuses on the undergraduate module *English Literature II*, taught to second-year students, and adopts an action research approach to examine the implementation of UDL principles in practice. Through successive cycles of intervention and reflection, the course was redesigned to include alternative formats for learning materials and varied modes of expression, analysis, and participation. Particular attention is given to how these changes influenced student engagement and participation, especially among students from rural areas, within the constraints of a regional university context.

In this broader framework, the article explores how students with different educational backgrounds make use of the formats offered, how these formats reshape participation across teaching cycles, and how engagement evolves within a concrete course setting. By documenting this process step by step, the study aims to provide a grounded understanding of the effects of UDL under the specific conditions of a regional university. In doing so, it contributes to the existing literature by offering empirically grounded insights into how UDL principles can function as a pedagogical strategy for enhancing inclusion and participation, without undermining the academic demands of the discipline.

Although the article is situated within broader discussions on digital inclusion and regional equity, the empirical focus of the study remains deliberately narrow. The analysis is based on a course-level intervention carried out in a single regional university and is intended to illuminate pedagogical processes rather than to make claims about regional development outcomes as such. The findings are therefore discussed as context-bound insights into teaching practice, offering indications of how inclusive design can reshape patterns of participation within the everyday constraints of a regional university classroom.

2. Literature Review

The digital divide in higher education has been widely discussed in international literature as a complex phenomenon that cannot be reduced solely to a lack of access to technology, but also includes social, cultural, and educational dimensions. Van Dijk (2020) conceptualises the digital divide as a multidimensional process, in which inequalities in access, skills, and use are intertwined with existing social structures. From this perspective, technology does not operate as a neutral factor, but often contributes to the reproduction of pre-existing inequalities. A similar argument is advanced by Warschauer (2003), who emphasises that inclusion in the information society requires not only access to the internet and technological devices, but also the skills needed to engage meaningfully with the educational content and practices that technology enables.

These perspectives are further reinforced by analyses from international institutions. The World Bank report *World Development Report: Digital Dividends* (World Bank, 2016) highlights that the benefits of digitalisation are not distributed automatically and that, in the absence of inclusive policies, technology may reinforce existing inequalities. Similarly, OECD (2020) notes that students from socio-economically disadvantaged backgrounds and from rural areas are more exposed to the risk of exclusion in online learning environments, due to limited access to resources, digital skills, and institutional support. UNESCO (2021) situates this debate within a broader ethical and social framework, arguing that digital transformation in education must be grounded in principles of social justice, otherwise it risks deepening existing educational inequalities.

Within this context, literature on inclusion in higher education has emphasised the need for approaches that move beyond individual accommodations. Seale (2014) argues that inclusion should be conceptualised as an integral part of learning design rather than as a late intervention for specific groups of students. Burgstahler (2015) further develops this position by stressing that learning environments in higher education should be designed from the outset to address a wide range of learners, taking into account diversity in abilities, experiences, and learning approaches.

Universal Design for Learning (UDL) represents one of the most consolidated theoretical frameworks for addressing these challenges in education. Developed by CAST and grounded in research on learning sciences and educational technology, UDL is based on three core principles: providing multiple means of representation, offering alternative ways for students to express their learning, and supporting varied forms of engagement (Meyer, Rose, & Gordon, 2014). The CAST guidelines (2018) emphasise that these principles aim to reduce structural barriers to learning and to create more flexible and accessible learning environments for all students.

The literature has also highlighted that the relevance of UDL becomes particularly evident in higher education contexts, where student heterogeneity is more pronounced and academic expectations are higher. Selwyn (2016) cautions that educational technologies are not inherently emancipatory and that, when implemented without critical pedagogical reflection, they may generate new forms of exclusion. This perspective supports the need for a framework such as UDL, which places technology at the service of pedagogy rather than allowing pedagogical practices to be driven by technological tools.

At the European level, the development of pedagogical competences for inclusive teaching has been closely linked to the digital transformation of education. The DigCompEdu framework explicitly connects educators‘ digital competences with their ability to design open and flexible learning environments (Redecker, 2017). Within this framework, inclusion is understood not only as a matter of technological access, but also as a question of pedagogical design and everyday teaching practices.

Recent empirical research has begun to examine how Universal Design for Learning operates within higher education settings, particularly in relation to student engagement, participation, and persistence. Studies focusing on UDL-informed course design suggest that offering multiple means of representation and expression can support diverse learners without diluting academic standards. Tobin and Behling (2018), for instance, argue that UDL provides a practical framework for designing inclusive courses in digitally mediated environments, emphasising flexibility rather than remediation. Similarly, empirical work by Al-Azawei, Serenelli, and Lundqvist (2016) demonstrates that UDL-based learning environments can positively influence students‘ motivation and perceived learning, especially when learners are given greater control over how they access content and demonstrate understanding. Capp (2017) further shows that UDL practices in postsecondary education can enhance participation among students who may otherwise be marginalised by conventional instructional formats, particularly in contexts where written academic expression is treated as the dominant mode of assessment.

Although Universal Design for Learning has gained wide recognition as an inclusive pedagogical framework, the literature also reveals a number of unresolved tensions, particularly when UDL is discussed in relation to higher education contexts outside well-resourced institutional settings. Much of the existing research assumes stable digital infrastructure, consistent access to technology, and a level of student familiarity with flexible and self-directed learning that cannot be taken for granted in regional universities. As a result, the transfer of UDL principles from policy-oriented or technology-rich environments to peripheral or rural higher education contexts remains insufficiently examined. Moreover, while flexibility and learner choice are often presented as inherently empowering, they may also introduce new forms of uncertainty for students who have been socialised into more traditional, teacher-centred models of learning. For such students, the availability of multiple formats and pathways does not automatically translate into confidence or engagement, but may initially be perceived as demanding or disorienting. These considerations point to the need for empirical, context-sensitive studies that examine how UDL operates in everyday teaching practice, particularly in settings where institutional resources are limited and student educational backgrounds are highly uneven.

Despite these contributions, it is worth noting that much of the existing empirical literature continues to focus on large, well-resourced institutions or technology-intensive learning environments, and relatively little attention has been paid to the implementation of UDL in regional universities or within humanities-based courses. Moreover, studies that address inclusion through UDL often prioritise technological affordances over the pedagogical realities of institutions operating under infrastructural and contextual constraints. The gap addressed by the present study therefore lies in the limited number of context-sensitive investigations that examine how UDL principles function in everyday teaching practice within regional higher education. By drawing on an in-depth action research case study conducted at the University ―Fan S. Noli‖ in Korçë, this article seeks to contribute empirically grounded insights into how UDL can support inclusion and participation in disciplines that rely heavily on interpretative and analytical engagement, under conditions that reflect the realities of peripheral university contexts.

3. Methodology

This study is based on an in-depth case study developed through an action research approach, with the aim of examining the impact of Universal Design for Learning (UDL) on student engagement and participation. The intervention was implemented in the module *English Literature II*, offered to second-year undergraduate students in the Bachelor programme in English Language at the University ―Fan S. Noli‖. This module was selected due to its analytical and theoretical nature, as well as the specific difficulties students often encounter when working with complex literary texts.

3.1. Study design

The study adopts an action research design, which focuses on change within teaching practice through systematic observation and reflection on its effects. This design was chosen because it allows teaching interventions to be adapted in real time, in response to students' reactions and emerging needs. The process unfolded across three successive teaching cycles, each of which included the following stages:

a. planning the intervention;
b. implementation in practice;
c. observation of student responses;
d. analysis of the collected data.

These cycles were not treated as isolated phases, but as parts of a continuous process aimed at improving the learning environment.

3.2. Participants and study context

The participants in the study were 24 second-year students enrolled in the Bachelor programme in English Language, all registered in the module *English Literature II*. The group included students with diverse educational backgrounds, including students from urban areas and students from rural areas. This heterogeneity made the group particularly suitable for examining how the UDL approach influences inclusion and engagement among students with different educational experiences.

The study was conducted during one academic semester and was fully integrated into the regular teaching process, without introducing additional course requirements beyond those defined in the official syllabus.

3.3. Data collection instruments

Data were collected through a combination of qualitative and descriptive instruments, appropriate for an action research design. The primary data sources included systematic observations of student participation during teaching sessions, as well as an analysis of student work produced in different formats, such as audio reflections, visual posters, and mini essays. In addition, records of student participation in discussions and interactive activities were maintained throughout the intervention cycles. The data set was further enriched by structured reflective notes written by the instructor after each cycle, focusing on observed changes in student engagement, responses to the redesigned tasks, and emerging learning patterns.

Together, these data sources made it possible to trace changes in students‘ approaches to learning, levels of engagement, and participation across the study cycles, providing a comprehensive picture of the effects of the UDL-based interventions.

In this study, student engagement was understood as a set of observable learning behaviours rather than as a psychological construct measured through self-report. Indicators of engagement included frequency of voluntary participation in class discussions, willingness to experiment with different formats of expression, completion of assigned tasks, and active involvement in interactive activities. These indicators were documented consistently across the three intervention cycles through structured observation and reflective notes.

3.4. Description of the interventions

The interventions were grounded in the three core principles of Universal Design for Learning and were shaped gradually in response to students‘ needs observed during the teaching process. Particular attention was given to varying the ways in which learning materials were presented, to allowing students different options for expressing analysis and understanding, and to designing activities that could encourage participation while reducing anxiety related to making mistakes.

In the first intervention cycle, literary materials were offered in a range of formats. Alongside the full texts, students were provided with audio versions and simplified summaries, which were intended to support initial engagement with complex literary content. During the second cycle, the focus shifted to students‘ modes of expression. Students were invited to choose the format through which they would present their analyses, an approach that allowed them to work in ways that better reflected their strengths and previous learning experiences. In the third cycle, the intervention was extended through the introduction of interactive activities, including structured discussions, short quizzes with varying levels of difficulty, video-based tasks, and spoken exercises. These activities were designed to foster more active participation and to create a classroom environment in which students felt more confident contributing to discussion.

3.5. Data analysis

Data analysis was conducted in a descriptive and comparative manner, with a focus on identifying changes across the three intervention cycles. The data were synthesised in tables in order to illustrate key indicators, including material use, modes of expression, participation in analysis and discussion, and levels of student engagement. Percentages are used descriptively to illustrate patterns and shifts in participation across the intervention cycles, rather than to support statistical generalisation beyond the specific study context. This approach allowed for the identification of gradual changes in student engagement and academic confidence throughout the intervention process.

As the study was conducted within the author‘s own teaching context, the dual role of instructor and researcher was explicitly acknowledged throughout the research process. The intervention formed part of the regular delivery of the English Literature II module and did not introduce additional assessment requirements beyond those already defined in the official syllabus. Students were informed that the course redesign aimed to improve learning and participation and that observations would be used for reflective and research purposes. All data were analysed in an anonymised and descriptive manner, with no reference to individual student identities, and participation in specific activities or formats had no impact on grading.

To mitigate the risk of bias associated with the instructor–researcher role, the analysis focused on observable patterns of engagement and participation across teaching cycles rather than on individual performance. To reduce the risk of over-interpretation, the analysis focused on recurring patterns observed across the group rather than on individual student trajectories, and changes were interpreted comparatively across cycles rather than as isolated outcomes. Within this framework, the study aligns with established principles of pedagogical action research, where ethical practice is grounded in transparency, reflexivity, and respect for the educational context.

4. Findings and Analysis

The findings of this study indicate that the application of Universal Design for Learning (UDL) had a significant impact on the way students engaged with learning materials and participated in the teaching process of the *English Literature II* module. At the beginning of the semester, students from rural areas in particular reported considerable difficulties in reading literary texts, expressing analysis, and participating in class discussions. The introduction of learning materials in different formats and the provision of alternative ways of completing tasks directly contributed to easing these difficulties and to a gradual increase in students' academic confidence. The data presented below are intended to illustrate patterns of change observed across the three intervention cycles rather than to establish causal relationships between specific interventions and learning outcomes.

In the first intervention phase, students were provided with literary materials in multiple formats, including audio versions, simplified summaries, and the full text. The data show that students from rural areas relied more heavily on audio versions and simplified summaries, while students from urban areas tended to use the full text more frequently. This difference is presented in Table 1.

Table 1 summarises the distribution of learning material formats used by students during the first intervention phase, based on aggregated observational records.

Table 1. Use of learning material formats

Material format	**Students from rural areas (%)**	**Students from urban areas (%)**
Audio	70	45
Simplified summaries	65	50
Full text	40	70

These data suggest that alternative formats did not replace traditional reading, but functioned as supportive tools that helped students from rural areas approach the text more confidently. While the full text remained the main format for students from urban areas, students from rural areas relied on multiple formats as complementary pathways for understanding. This finding illustrates how UDL adapts learning opportunities to students' needs without privileging a single mode of access.

At the next stage, the opportunity to choose the mode of expression had a direct effect on the quality of students' analytical work and on their confidence in presenting interpretations. Students were allowed to express their analysis through audio reflections, visual posters, or mini essays. As shown in Table 2, students from rural areas predominantly chose audio reflections, while students from urban areas showed a stronger preference for written mini essays.

Table 2 presents the distribution of students' chosen modes of expression for analytical tasks during the second intervention cycle, based on aggregated observations of submitted work.

Table 2. Choice of modes of expression for analysis

Mode of expression	Students from rural areas (%)	Students from urban areas (%)
Audio reflection	58	25
Visual poster	30	35
Mini essay	12	40

These results indicate that students from rural areas felt more confident expressing analysis orally, without the immediate pressure of rigid written structures. Visual posters were used by both groups in similar proportions, particularly for organising ideas, while mini essays were mainly chosen by students from urban areas, who had more prior experience with academic writing. Overall, the availability of multiple formats enabled students to demonstrate analytical understanding that might otherwise have remained hidden within a single traditional assessment format.

More pronounced changes were observed in student participation during the third intervention cycle, when activities such as scaffolded questions, short explanatory videos, and interactive exercises were introduced. Participation levels before and after the UDL interventions are presented in Table 3.

Table 3 compares levels of student participation before and after the UDL-based interventions, drawing on recorded observations from classroom discussions and interactive activities.

Table 3. Student participation before and after UDL interventions

Participation stage	Students from rural areas (%)	Students from urban areas (%)
Before intervention	35	60
After intervention	75	85

The increase in participation was particularly noticeable among students from rural areas, who had previously contributed less frequently to discussions and often expressed uncertainty in interpreting literary texts. These findings suggest that structured activities and interactive tasks helped create a learning environment in which fear of making mistakes was reduced, thereby encouraging more active participation.

When data from all three intervention cycles are considered together, a clear pattern of gradual growth in engagement emerges throughout the semester. From the first to the third cycle, students adapted progressively to the new formats and responded increasingly positively to the redesigned tasks. This trend is illustrated in Table 4.

Table 4 provides an overview of changes in student engagement across the three intervention cycles, illustrating how participation evolved over time within the study group.

Table 4. Student engagement across intervention cycles

Cycle	Students from rural areas (%)	Students from urban areas (%)
Cycle I	45	65
Cycle II	60	75
Cycle III	75	85

It should be noted that the observed increase in engagement did not occur uniformly across all students, nor did it follow a linear trajectory. Some students adopted alternative formats more readily than others, while a small number continued to rely on familiar modes of participation throughout the intervention period.

While the overall trend indicates a gradual increase in engagement across the three intervention cycles, this development was neither immediate nor uniform. In the early stages of the intervention, several students expressed uncertainty about how to use alternative formats effectively, and some initially perceived the availability of multiple options as demanding rather than supportive. In particular, a small number of students continued to rely on familiar formats despite encouragement to experiment with new modes of expression. These observations suggest that flexibility alone does not automatically translate into engagement; rather, students require time, guidance, and repeated exposure in order to develop confidence in navigating non-traditional learning pathways.

Overall, the findings demonstrate that UDL did not simplify the academic content of the course, but made it more accessible to students with different educational backgrounds. By offering multiple ways of engaging with materials and expressing understanding, students were given greater opportunities to participate, interpret texts, and construct analysis, without being excluded from the learning process.

5. Discussion

The results of this study show that the application of Universal Design for Learning (UDL) had a direct impact on the ways in which students engaged in learning, particularly in a regional university context where disparities in prior educational preparation are more pronounced. Unlike traditional teaching approaches, where learning materials and assessment formats tend to be uniform for all students, UDL created space for multiple ways of accessing content and expressing understanding, without altering the academic requirements of the course.

The interpretation of the data indicates that different material formats were not used in the same way by all students. Students from rural areas relied more frequently on audio versions and simplified summaries, while students from urban areas tended to use the full text as their primary resource. This difference does not suggest an academic divide, but rather reflects different pathways through which students approached the same content. In this sense, UDL did not replace close reading of complex texts, but functioned as a supportive structure that enabled students to reach that stage gradually, reducing initial disengagement.

The choice of modes of expression also emerged as a significant factor in the quality of students‘ analytical work. Audio reflections were predominantly used by students from rural areas, who felt more confident articulating interpretations orally, while mini essays were more frequently chosen by students from urban areas, who generally had greater familiarity with academic writing. Visual posters were used by both groups as an organisational tool. These findings suggest that difficulties in analysis are not necessarily linked to a lack of understanding, but often to the format through which students are expected to express that understanding. In this respect, UDL allowed students to demonstrate analytical thinking in forms that matched their strengths.

The increase in participation observed during the third intervention cycle further highlights the role of instructional design in shaping student engagement. The introduction of scaffolded questions, short explanatory videos, and simple interactive exercises reduced fear of making mistakes and encouraged students to take part more actively in discussions. Students from rural areas, in particular, showed a marked increase in participation compared to the initial phase of the course. This indicates that engagement is not merely a matter of individual motivation, but is strongly influenced by the structure and organisation of the learning environment.

From a broader perspective, the findings suggest that the significance of UDL in regional higher education lies not only in its inclusivity, but in its capacity to compensate for structural and contextual limitations. In settings where students enter higher education with uneven academic preparation and where institutional resources are constrained, UDL functions as a form of pedagogical infrastructure that redistributes access to participation. Rather than addressing disadvantage through individual remediation, the approach reshapes the learning environment itself, allowing students to engage with academic content through differentiated yet academically equivalent pathways. In this sense, UDL operates less as an accommodation strategy and more as a mechanism for recalibrating participation within heterogeneous classrooms.

When the data from the three intervention cycles are considered together, they reveal a gradual improvement in engagement throughout the semester. Students benefited from repeated exposure to varied formats and tasks, which allowed them to adapt progressively without experiencing a sense of overload. By the final cycle, many students felt confident in choosing modes of expression and in contributing to class discussions. This process suggests that UDL functions more effectively when implemented as a sustained approach rather than as a series of isolated strategies.

Despite these positive outcomes, the study also highlights several institutional limitations. Constraints related to infrastructure, limited access to laboratories, unreliable internet connections, and the time required to prepare materials in multiple formats posed challenges during implementation. These limitations indicate that UDL cannot rely solely on individual pedagogical effort, but requires institutional support and coherent policies in order to become a sustainable practice within higher education.

The findings discussed above need to be read in relation to the concrete teaching context in which the intervention took place. The study does not attempt to measure regional development effects in a direct or quantitative sense, nor does it claim that the observed changes extend beyond the specific course and institutional setting examined. Its contribution lies instead in showing how inclusive pedagogical design, when applied consistently within everyday teaching practice, can create conditions that support broader objectives related to equity and participation in higher education. In the context of a regional university marked by uneven student preparation and limited resources, such interventions do not resolve structural inequalities on their own, but they play an important role in shaping how students access, engage with, and benefit from digital learning environments.

6. Conclusion

This study showed that the application of Universal Design for Learning (UDL) principles in the *English Literature II* module led to noticeable improvements in student inclusion, participation, and academic confidence, particularly among students from rural areas. Through the use of different material formats, the provision of multiple ways of expressing analysis, and the creation of a more open environment for discussion, students were given greater opportunities to access course content and to participate actively in the learning process.

Viewed from a regional development perspective, Universal Design for Learning emerges not merely as an inclusive pedagogical framework, but as a strategic mechanism through which regional universities can counterbalance structural inequalities, retain student participation, and align digital transformation with broader goals of social and territorial cohesion.

The findings indicate that the benefits of UDL do not emerge immediately, but develop gradually over time. The increase in engagement from the first to the third intervention cycle demonstrates that students need time to adapt to new ways of working and to build confidence. This process was especially significant for students from rural areas, who began at a lower level of engagement and benefited more substantially from the implemented interventions.

At the same time, the findings should be interpreted in light of the study‘s limited scale and context, as the intervention was conducted within a single module and involved a relatively small group of students in one regional university.

The study also shows that UDL does not simplify academic content or lower course standards. On the contrary, it creates conditions that allow students with different levels of preparation and diverse educational experiences to reach the same learning objectives through different pathways. In this sense, UDL responds effectively to the realities of regional universities, where student heterogeneity represents the norm rather than the exception.

Within these limits, the study contributes to existing research by offering a detailed, practice-based account of how UDL principles can be translated into everyday teaching decisions in a humanities course, under conditions that reflect the realities of regional higher education rather than idealised institutional settings.

However, in order to function as a sustainable practice, UDL requires institutional support, improvements in infrastructure, and ongoing professional development for academic staff. Without these conditions, pedagogical interventions risk remaining confined to a single course and becoming dependent on the individual initiative of the instructor.

Overall, this study demonstrates that UDL represents a valuable approach for higher education in Albania, particularly within regional universities. The most visible benefits were observed among students from rural areas, who were able to enhance their understanding, participation, and self-confidence. If supported in a systematic manner, UDL has the potential to contribute to the development of a more equitable and inclusive learning environment, without compromising the academic core of university disciplines.

Future research could build on this work by examining how UDL-informed practices develop across multiple courses or disciplines, and by exploring how institutional policies and support structures influence the sustainability of inclusive pedagogical approaches in regional universities.

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TEACHING ROMANIAN AS A BALKAN LANGUAGE TO STUDENTS FROM ALBANIA

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Abstract
The teaching of Romanian in the Balkans, including Albania, is rooted in a tradition initiated by the Romanian state, which established and supported an extensive network of Romanian schools in the late 19th and early 20th centuries. These schools operated in cities and villages such as Korçë, Plasë, Voskopoje, Dishnicë, Llëngë, Niçë, Shipskë, as well as in Elbasan, Frashër, Berat, Fier, Përmet, and Vithkuq. This educational tradition was disrupted by unfavorable historical circumstances and was resumed only after the fall of communism. At the academic level, Romanian was later introduced into the Bachelor's program in Albanian Language and Literature at ―Fan S. Noli‖ University. Drawing on pedagogical experience, this article examines both the achievements and challenges encountered by several generations of students from the universities of Korçë and Tirana in learning Romanian as a Balkan language. The study is based on the analysis of students' written and oral tasks collected over a two-year period, with particular attention to phonetic and morphological aspects of Romanian.

Keywords: *Romanian, Albanian, interference, phonology, morphology*

7. Introduction

Albanian belongs to the Indo-European language family and constitutes an independent branch within it, while maintaining significant historical and structural connections with other Indo-European languages, such as Latin, Greek, Armenian, and Old Slavic. The origins of Albanian are commonly traced to the ancient Illyrian and Thracian populations, and its diachronic development has been shaped by continuous contact with neighboring languages and cultures. Within this context, the relationship between Albanian and Romanian occupies a central position.

Prolonged geographical proximity and sustained interaction between their speakers have resulted in mutual linguistic influence, manifested in shared lexical items, common expressions, and convergent phonetic and grammatical features. Loanwords, particularly those attributed to a common substrate, represent a significant area of interaction (Brâncuș 1983, 1995, 1999). In addition, both languages have integrated elements from other contact languages, notably Slavic, Greek, and Turkish, contributing to a complex and layered lexical inventory that reflects the historical dynamics of the Balkan region. On the basis of these shared features, Albanian and Romanian are widely regarded as core members of the Balkan Sprachbund or Balkan linguistic union (Asenova 2002; Mišeska-Tomić 2006; Friedman 2011; Friedman & Joseph 2013). Further evidence of long-standing contact is found in the toponymy of Albania and Romania, where place names preserve linguistic strata indicative of historical interactions and a shared cultural heritage. These observations are consonant with the conclusions of Eqrem Çabej (1908–1980), whose foundational research on Albanian–Romanian linguistic relations advanced the hypothesis of a common ancient substratum: ―The affinity between Albanian and Romanian is evident in phonetics and grammatical structure (nominal inflection, verb syntax), in vocabulary, in word formation and phraseology, in proverbs and sayings, in short, in the entire linguistic system. It is so great that the linguist often has the impression that he is dealing with a single linguistic material in two different forms. Based on the nature of this affinity, it can be said with reasonable certainty that, from a geographical point of view, the Albanian and Romanian peoples were closer to each other at some point in their history, perhaps even living in symbiosis in some places.‖ (Çabej 1997: 103)

Status and Geographical Distribution

According to recent estimates, Albanian is the mother tongue of over eight million Albanians, of whom approximately six million live in their native lands. It is spoken in Albania, Kosovo, the Republic of North Macedonia, in several localities in southern Serbia and southeastern Montenegro, in a number of localities in southern Italy and Sicily (the Arbëresh dialect), in Greece, Bulgaria, and by Albanian immigrants in Turkey, the United States, Australia, and Western Europe. Albanian is the official language in Albania and Kosovo and co-official in North Macedonia and Montenegro. It has minority language status in Croatia, Italy, Romania, and Serbia.

Dialects and Varieties

The Albanian language, referred to by its speakers as *shqip*, constitutes an independent branch within the Indo-European family and is traditionally divided into two principal dialects: Gheg and Tosk. This dialectal division is geographically conditioned, with Gheg spoken predominantly in northern regions and Tosk in southern areas, and gives rise to systematic differences in pronunciation and lexical usage. The most salient divergences occur at the phonetic level and do not compromise the core semantic structure of the language. Among the defining features of Tosk are the development of the inherited nasal vowel *â* into *ë* [ə] and the occurrence of rhotacism, whereby the consonant *n* in historical intervocalic position shifts to *r*. By contrast, Gheg has largely preserved the long vowels inherited from Old Albanian, whereas vowel reduction in Tosk is generally regarded as a comparatively recent and internally uneven phenomenon (Demiraj 1996; Çabej 1976).

The codification of Standard Albanian was accomplished at the Orthography Congress held in Tirana in 1972, which established the Tosk dialect as its normative basis. Nevertheless, the realization of the standard language exhibits regional variation. Recent research on the pronunciation of stressed vowels has revealed notable differences between educated speakers in Albania and those in Kosovo, underscoring the continuing dialectal diversity within contemporary Albanian (Riverin-Coutlée et al. 2024: 219–242).

1.3 Writing System

The Albanian alphabet uses Latin script, but it is not as simple as the Romanian alphabet. The use of Latin characters was decided in 1908 at the Congress of Manastir. The Albanian alphabet contains 36 letters, some of which are combinations of two consonants that represent a single distinct sound. In total, the Albanian alphabet includes 29 consonants and 7 vowels. Albanian spelling reflects unique characteristics influenced by phonemic and etymological principles. Phonemic spelling in Albanian represents sounds as they are pronounced, following a one-to-one correspondence between letters and phonemes, thus simplifying reading and writing for learners. Etymological spelling preserves the historical and morphological roots of words and may not accurately reflect current pronunciation.

8. Interference of the Albanian Language with Romanian as L2

2.1 Phonetic and phonological level. General Overview

Albanian has 7 vowel phonemes: /a/, /e/, /ë/, /i/, /o/, /u/, /y/

Table 1: The vowel chart of Standard Albanian

	Front		Central	Back	
	unrounded	rounded	unrounded	unrounded	rounded
close	i /i/	y /y/			u /u/
mid			e /ɛ/		o /ɔ/
open				a /a/	

Source: Phonetics of Standard Albanian *(Memushaj 2011: 40)*

The vowel ―ë‖ /ə/ is a schwa sound, central and unstressed. The vowel ―y‖ is a front, rounded vowel, not found in many languages. Vowels may be short or long, without affecting word meaning in Standard Albanian, but this is not the case in the Gheg dialect.

Table 2: The consonant chart of Standard Albanian

			Bi-labial	Labio-dental	Inter-dental	Alveo-dental	Alveo-lar	Alveo-palatal	Palatal	Velar	Laryn-geal
Plo-sives	voiced	simple	p [p] b [b]			t [t] d [d]			q [c] gj [ɟ]	k [k] g [g]	
		affricates					c [ʦ] x [dz]	ç [ʧ] xh [ʤ]			
	voice-less		m [m]			n [n]			nj [ɲ]		
Fricatives	voiced			f [f] v [v]	th [Ɵ] dh [ð]		s [s] z [z]	sh [ʃ] zh [ʒ]			h [h]
	sonorants	central							j [j]		
		lateral				ll [ɫ]	l [l]				
trills							r [ɾ] rr [r]				

Source: Phonetics of Standard Albanian *(Memushaj 2011: 93)*

The table shows that the pronunciation of consonants in Albanian is quite different from that in Romanian in terms of position and sound. Another specific feature of the Albanian language is that it allows consonant clusters at the beginning of words, unlike Romanian: e.g. the cluster *ndr-*: *ndriçoj* "brighten".

In Albanian, the stress is mobile, meaning that it can fall on any syllable. Usually, the stress falls on the penultimate or last syllable. Although vowel length does not play a phonological role in standard Albanian, it must nevertheless be taken into account for correct pronunciation. When a word is stressed on the last syllable, the vowel in that syllable is usually pronounced short: *ndjek* [e]- ―I follow‖. When a word is stressed on the penultimate syllable, the vowel in that syllable is usually pronounced slightly longer *dorë* [o:]- ―hand‖ (Beşleagă 2022:46).

Albanian is not a tonal language. Tone differences are used only for intonation, not to distinguish the meaning of words.

Important phonetic-phonological phenomena in Albanian that affect pronunciation in Romanian are:

a. Palatalization: Albanian has many palatal sounds, such as /c, ɟ, ɲ, j/ (spelled *q, gj, nj, j*, respectively), which are produced with the tongue on the hard palate. Albanian speakers tend to palatalize Romanian consonants before front vowels (e.g., t, d, n, l) in Romanian. In addition, the sounds /c, ɟ, ɲ/ do not exist in Romanian. The letters *q* and *c* in Romanian represent the velar plosive consonant /k/, and the letter *j* represents the postalveolar fricative consonant [ʒ], these letters being inherited from Latin. When encountering them, Albanian speakers tend to read them as in their native language: e.g. *joc* /ˈʒɔk/- */ˈjɔʦ/.

b. Strong dental articulation. Consonants such as /t, d, n, l/ are more dental than alveolar (the tongue is positioned more on the teeth). Albanians can pronounce t, d in Romanian more dentally than native speakers, who produce a slightly "soft" sound.

3. Interdental fricatives /θ, ð/. Albanian has *th* /θ/ and *dh* /ð/, which are absent in Romanian. Albanians can replace Romanian /t/ or /d/ with the above-mentioned fricatives.

4. Albanian distinguishes between the alveolar trill /ɾ/ (r) and the alveolar-dental trill /r/ (rr) with more vibrations. Albanians may pronounce the Romanian *r* with more or fewer vibrations. The word *mare* (―sea‖) may sound like [ˈmaɾe] or [ˈmarːe].

5. Albanian distinguishes between the alveolar liquid consonant /l/ and the alveolo-dental consonant /ɫ/, the latter sounding almost like a velarized /ɫ/. Thus, Albanians can pronounce the Romanian velarized in all positions: *limbă* ―language‖/ˈlimbə/ → *[ˈɫimbə].

6. The groups *ce, ci, ge, gi* in Romanian are the most problematic for Albanian speakers, being most often read as [ke], [ki], [ge], [gi], while the groups *che, chi* can be pronounced [ce], [ci] respectively: e.g. *chibrit* ―match‖ *[ciˈbrit], *cheie* ―key‖ *[ˈcɛi̯ɛ].

2.2 Areas of phonetic and phonological interference

Both Romanian and Albanian have a system of seven vowels, six of which are identical. The one missing in standard Albanian is the closed central vowel *î/â*, which is often replaced by Albanian speakers with the mid-open central vowel *ă* /ə/, which also exists in Albanian: e.g. român ―Romanian‖ *[rɔˈmən].

The central vowel /ə/ (ë), which is very common and variable in Albanian, can be reduced or eliminated. Albanians may omit this sound in Romanian words, especially when it is in an unstressed final position: cravată ―tie‖– *[kraˈvat].

Albanian has far fewer diphthongs than Romanian and has no triphthongs. Difficulties therefore arise in the pronunciation of triphthongs, but also of the diphthong *e̯a*, which does not exist in Albanian. Therefore, it will be pronounced *i̯a*: e.g. dimineață ―morning‖- [dimiˈni̯atsə].

9. Grammar System

3.1 Overview

Albanian is characterized by synthetic inflection, but also has analytical elements. Synthetic inflection occurs primarily in grammatical relationships achieved through inflectional endings attached to nouns, adjectives, and verbs. However, analytical structures (with prepositions and auxiliary verbs) are also present: for example, in compound tenses.

The usual word order in a sentence is SVO (subject-verb-object), but word order can be flexible when it is desired to emphasize certain constituents, especially in poetry or spoken language.

There are three genders in Albanian: masculine, feminine, and neuter. Most nouns are masculine or feminine, with the neuter gender being represented by a small number of nouns. The grammatical cases in Albanian are nominative, accusative, dative, genitive, and ablative. There is no vocative case, whose functions were taken over in the past by the nominative case.

Verbal tenses, aspects, and moods are marked by a combination of synthetic and analytical forms.

3.2. Areas of morphological interference

As mentioned above, Albanian distinguishes between grammatical genders (masculine, feminine, and neuter). It uses a declension system similar to that of Romanian (which expresses gender, number, and case in nouns and adjectives). A Balkan pattern common to Albanian and Romanian is the identical marking of the genitive and dative cases. E.g. *djalit* ("to the boy") - dative and *i, e, të djalit* - genitive ("the boy's")

Also, in Albanian there are a number of nouns that, in the singular, take masculine articles, adjectives, and agreement forms, and in the plural, feminine ones, as is the case in Romanian with neuter nouns: *mal i lartë*, masculine singular ("high mountain") - *male të larta*, feminine plural ("high mountains").

The plural of nouns is formed by adding a series of endings, such *as –ë, -a, -j, zero* in the case of masculine nouns, *-a, -e, -ra, zero* in the case of feminine nouns. Also, many masculine nouns have irregular plural forms, as in Romanian: *kalë-kuaj* (―horse-horses‖); *bir-bij* ("son-sons"), and the distinction between countable and uncountable nouns is present.

The Albanian language has definite articles, but no indefinite articles, or rather, it does not have the grammatical category of indefinite articles. The definite article is enclitic, as in Romanian, which is another Balkan pattern that the two languages have in common. Unlike Romanian, the enclitic definite article in Albanian also indicates the gender of the articulated noun. Thus, nouns that receive the enclitic definite article *–i* (*mësuesi* "teacher", *nxënësi* "student") or *–u* (*bregu* "shore", *ujku* "wolf") in the singular are masculine, nouns that receive the enclitic definite article *–a* (*vajza* "girl"), *-ja* (*lulja* "flower") are feminine, and those that receive the article *–it* (*të folurit* "speech") or *–ët* (*të ftohtët* "cold") are neuter. A phenomenon of interference that often occurs among Albanian speakers of Romanian is the transfer of gender from L1 to L2: for example, a series of masculine nouns in Albanian such as *problem* "problem" (articulated with the enclitic article *problemi* "the problem"), *diagram* "diagram" (articulated with the enclitic article *diagrami* "the diagram"), which in Romanian are feminine, appear in written or spoken communication in the form **problemul* (*Care este problemul?), **diagramul.*

In Albanian, there is also a proclitic article, placed before adjectives, nouns in the genitive case, and some special forms of nouns.

Albanian also inflects adjectives according to gender, number, and case, and the adjective usually follows the noun it modifies. It does not have limited declension, and in the case of nouns and adjectives, there are generally no difficulties in forming the genitive correctly, especially in the feminine singular: e.g. *libri i vajzës* – "the girl's book". The only difference and implicit difficulty lies in the fact that in Romanian, the genitive case for feminine nouns is generally formed from the plural form of the noun.

The degrees of comparison of adjectives and adverbs in Albanian are constructed only analytically, as in Romanian: *mai bun, -ă-* më i/e mire; *foarte bun, -ă* - "shumë i/e mirë". The most common mistake is to use the adjective *bun* instead of the adverb *bine* because in Albanian the adjective *bun* and the adverb *bine* have the same lexical form: adj. *i mirë, e mirë* ("good"), adv. *mirë* ("well"): *Vorbește bun/bună limba română ("*She/He speaks good Romanian".)

Albanian uses pronominal adjectives for emphasis or politeness similar to those in Romanian. The adverb cannot be placed between the auxiliary and the predicate verb.

In the prepositional group without a post modifier in Albanian, the complement noun is not articulated with the definite article, as in Romanian, where, in the prepositional group with the same structure, the noun is accompanied by the article 0. This is also true for the preposition *me* ("with") with an instrumental or modal value, which is not followed by a noun articulated with a definite article, unlike in Romanian. For example:

në spital- la spital (at the hospital)
mbi tavolinë- pe masă (on the table)
me stilolaps- cu stilo**ul** (with the fountainpen)
me autobus- cu autobuz**ul** (by bus)
me tren[1]- cu tren**ul** (by train)

The syntactic functions of nouns (subject, complement, etc.) in Albanian are marked both by inflection and by their position in the sentence or by prepositions (complements). In the above examples from Albanian, nouns preceded by a preposition are not marked by inflection, the complement function being marked by the preposition *me*. The direct complement expressed by a noun articulated in the accusative case in Albanian is marked by inflection, unlike in Romanian, where it is marked by the preposition *pe*: *Takova* ***djalin*** *në rrugë.- L-am întâlnit* ***pe băiat*** *pe drum*. "I met the boy on the road."

As for verbs, Albanian has a complex system of verbal conjugation (tenses, modes, aspects), as well as morphologically marked reflexive verbs. As in Romanian, Albanian uses analytical forms for the future and perfect tense. The presumptive also exists in Albanian, with a form and usage similar to those in Romanian. However, the passive voice is not constructed using grammatical means similar to those in Romanian. Albanian distinguishes between the perfect tense and the imperfect tense, as well as between reflexive and non-reflexive verbs.

[1] The definite forms of these nouns in the accusative case would have been **stilolapsin, autobusin, trenin.**

Nevertheless, Albanian speakers of Romanian have difficulty understanding why the verbs *a se duce* "to go" (Alb. *shkoj*) and *a se uita* "to look" (Alb. *shoh*) are reflexive in Romanian, while their equivalents in Albanian are not.
Another feature of standard Albanian, which, as mentioned earlier, is based on the Tosk dialect, is the replacement of the infinitive with the subjunctive, which is another Balkan pattern. However, this does not occur in the Gheg dialect.

10. Conclusion

The comparative analysis undertaken in this study highlights the depth and complexity of the linguistic relationship between Albanian and Romanian, both from a historical and from a synchronic perspective. As two central members of the Balkan Sprachbund, the languages display convergent structural features that extend beyond simple lexical borrowing and point to prolonged contact, shared areal developments, and possibly a common substratum. The parallels identified at the phonetic, morphological, and syntactic levels confirm earlier research emphasizing the intensity of interaction between the two linguistic communities and the extent to which this contact has shaped their evolution.

At the same time, the examination of interference phenomena demonstrates that structural proximity does not eliminate learning difficulties. On the contrary, partial similarities often generate transfer errors when Albanian functions as L1 and Romanian as L2. At the phonetic and phonological level, differences in vowel quality, consonantal articulation, palatalization patterns, interdental fricatives, stress placement, and consonant clusters produce systematic pronunciation deviations. Morphological interference is particularly visible in the transfer of grammatical gender, the use of enclitic articles, agreement patterns, case marking, and the analytic construction of comparison. Syntactic differences, such as the marking of direct objects, the use of reflexive verbs, or the replacement of the infinitive with the subjunctive, further illustrate how deeply L1 structures influence L2 production.

These findings suggest that the teaching of Romanian to Albanian speakers should explicitly address contrastive grammar and phonology, placing emphasis on areas of structural divergence rather than on shared Balkan features alone. A contrastive, awareness-based pedagogical approach can transform potential interference into a resource, helping learners recognize both affinities and differences between the two systems. In this way, linguistic proximity becomes not merely a source of transfer errors but a foundation for metalinguistic reflection and more efficient second-language acquisition.

Ultimately, the study confirms that Albanian–Romanian relations represent a particularly fertile field for contact linguistics, Balkan studies, and applied linguistics. The interplay between convergence and divergence, between shared heritage and structural specificity, illustrates the dynamic nature of language contact in Southeastern Europe and underscores the importance of integrating historical, descriptive, and pedagogical perspectives in future research.

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SKËNDER RUSI, A REPRESENTATIVE VOICE OF CONTEMPORARY ALBANIAN LYRICISM

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Abstract
This paper examines the creative profile of Skënder Rusi, a distinguished voice in contemporary Albanian lyric poetry, by analyzing his contribution to the development of poetics and to the affirmation of a renewed aesthetic identity. Rusi's work is characterized by a refined and condensed poetic language, built upon symbols that intertwine the everyday with metaphysical dimensions, positioning him among the poets who revitalized literary sensibilities. Through a critical and comparative approach, the study explores the central themes of his oeuvre, such as love, the search for meaning, the confrontation with time, and the individual's relationship with social reality. Additionally, it examines the stylistic techniques and formal innovations that make Rusi's lyricism a representative example of contemporary aesthetics, where philosophical reflection and inner emotionality merge seamlessly. The paper aims to highlight how Skënder Rusi, through a cultivated and coherent lyric voice, has constructed a creative identity that enriches the Albanian poetic landscape and contributes to the consolidation of a new literary tradition, making him an essential figure for understanding current trends in Albanian poetry.

Keywords: *contemporary, lyric, love, poetry, profile*

Introduction

Contemporary Albanian literature has been enriched by numerous poets who have introduced new stylistic, thematic, and aesthetic perspectives. Within this poetic landscape, Skënder Rusi stands out as one of the most distinctive voices of emotional lyricism and intimate poetic expression. With a prolific body of work consisting of twenty-eight poetry collections, one of which was published posthumously, Rusi emerges as an indefatigable poet whose dedication to the poetic word remained constant throughout his life. His poetry is consistently inspired by the theme of love, which functions as a central axis of his lyrical universe.

The inclusion of his poems in various international poetic anthologies demonstrates that his work has transcended national boundaries, becoming accessible and appreciated by readers and scholars from different cultural contexts. Such reception indicates that the emotional and aesthetic dimensions of his poetry possess a resonance that goes beyond the Albanian literary space.

This paper aims to examine how and why Skënder Rusi may rightly be considered a representative voice of contemporary Albanian lyric poetry. The analysis focuses on the structural features of his lyricism, its central thematic motifs, the stylistic qualities of his poetic language, the innovations he introduces into Albanian poetry, and the position his work occupies within the broader tradition of Albanian lyrical writing.

1. Poetic Creation: Continuity, Productivity, and Creative Individuality[2]

The extensive body of Skënder Rusi's work testifies not only to literary talent but also to a rare degree of personal dedication to poetic creation. Over the course of his career, he authored twenty-eight poetry collections, forming an opus that is significant both quantitatively and aesthetically. Such productivity places him among the most consistent voices of contemporary Albanian lyric poetry. His poetic activity has not merely secured him a place within the Albanian literary canon, but has also shaped a distinct poetic identity that is recognizable both within Albania and beyond its borders.

The fact that one of his poetry collections was published posthumously indicates that Rusi continued writing until the very end of his life, considering poetry not simply as a form of artistic expression but as an essential dimension of his personal identity and daily existence. This uninterrupted continuity of writing is one of the key elements that establishes him as an authentic representative of contemporary Albanian lyric poetry. As literary theorists often emphasize, lyric poetry is closely linked to the persistence of the poetic voice across time, reflecting the evolving relationship between personal emotion and artistic form (Culler, 2015). In this sense, Rusi's poetic trajectory embodies both the spirit of his era and the enduring individuality of his artistic vision.

Spanning more than four decades, Rusi's creative work constitutes a rich poetic universe built upon profound lyrical sensitivity, the intimate experience of love, and a constant reflection on life and time. His poetry is marked by a restrained yet melodious language, characterized by clarity, emotional intensity, and expressive directness. Through this stylistic simplicity, individual emotional experience is transformed into a broader aesthetic expression capable of resonating with readers across different cultural contexts. As Jonathan Culler has argued, lyric poetry often transforms personal experience into a universal form of address, inviting readers to participate in a shared emotional space (Culler, 2015).

For this reason, a considerable number of Rusi's poems have been translated and included in national and international anthologies, demonstrating the capacity of his lyrical voice to transcend linguistic and cultural boundaries. The inclusion of his work in such collections confirms that his poetry possesses a communicative power that extends beyond the Albanian literary environment and enters into dialogue with broader traditions of modern lyric expression.

Rusi's academic formation in language and literary studies, combined with his long professional engagement in cultural institutions, has played a significant role in shaping both his creative profile and his broader contribution to literary life. For many years he held important positions within the cultural life of the city of Korçë, initially serving as director of the Palace of Culture (1991–1996) and later as director of the City Library (1997–2017). Through these roles he contributed to the consolidation of cultural institutions and to the development of spaces dedicated to literary communication and cultural exchange.

In this respect, his activity extends beyond the sphere of poetic creation, encompassing also the development of a cultural infrastructure that has supported the growth of literature and cultural life at both the local and national levels. His work as an organizer and promoter of

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[1] Perelman, Bob. *The Marginalization of Poetry: Language Writing and Literary History,* Princeton University Press, 1996, pp. 12.

literary culture reflects the important role that poets often play not only as creators but also as mediators of cultural dialogue within their communities.
One of the most significant dimensions of his contribution lies in his role in fostering and supporting the literary community. For fourteen years he led the Writers' Club ―Bota e Re‖ in Korçë, establishing an important platform for collaboration and promotion for emerging authors and for the poetic life of the region. Under his leadership, the club became a space where literary creativity, mentorship, and dialogue could flourish, contributing to the vitality of regional literary culture.
In addition, Rusi was the initiator of the literary event ―Korça Poetry Nights,‖ an initiative that over time has developed into a notable cultural tradition. This event has played an important role in promoting poetic dialogue and in strengthening Korçë's reputation as one of the most vibrant centers of Albanian poetic activity. In this broader cultural perspective, Skënder Rusi should be understood not only as a lyric poet with a substantial body of work but also as a cultural mediator who contributed significantly to the shaping and revitalization of Albanian literary life during the last decades.

2. The Motif of Love: The Central Axis of Skënder Rusi's Lyric Poetry

A large portion of Rusi's poetic production is built upon the motif of love, particularly the love for woman as both an emotional presence and an existential inspiration. This motif is not treated merely at the level of personal sentiment; rather, it unfolds across philosophical, aesthetic, and even metaphysical dimensions. Through this thematic focus, Rusi situates himself within a long tradition of European lyrical poetry in which love functions as a fundamental poetic impulse, shaping both emotional expression and artistic reflection.

2.1 Woman as a Source of Inspiration

In Rusi's poetry, the figure of woman occupies a central and multifaceted position. She appears not merely as a beloved figure within a personal narrative but as a symbolic presence that embodies beauty, emotional depth, and existential meaning.
Within this poetic framework, woman is represented as:

- an aesthetic being who embodies beauty and harmony,
- a metaphysical presence that gives meaning to existence,
- a spiritual energy that awakens emotion and inspires poetic creation.

These representations reveal a lyrical sensibility that elevates the feminine figure into a central poetic symbol. In many of his poems, the beloved becomes a catalyst for emotional awakening and creative expression, transforming the experience of love into a source of poetic knowledge. Such treatment aligns with the broader tradition of lyric poetry in which the beloved often serves as a mediating figure between personal emotion and artistic expression (Frye, 1957).
Through this approach, Rusi develops a poetic discourse in which the feminine presence becomes both an aesthetic ideal and a source of existential reflection. His lyric voice does not simply describe love but seeks to interpret its emotional and symbolic dimensions.

2.2 Love as a Philosophy of Existence

In Rusi‘s poetry, love is not merely a recurring thematic element but a fundamental category of life. It functions as a philosophical principle that structures the poet‘s vision of human existence. His poetic lines present love as:

- a path toward self-discovery,
- a mechanism of emotional renewal,
- a form of inner communication,
- an aesthetic form of salvation.

Through this perspective, Rusi elevates love lyricism beyond the sphere of simple emotional expression and situates it within a broader philosophical framework. Love becomes a way of understanding both the self and the world, transforming everyday emotional experience into a deeper reflection on human existence.

In this sense, Rusi‘s poetry reflects one of the defining characteristics of modern lyric poetry: the transformation of intimate experience into a universal poetic meditation. As literary critic Northrop Frye suggests, lyric poetry often functions as a space where personal emotion and philosophical reflection converge, producing a form of expression that speaks simultaneously to the individual and to the universal (Frye, 1957).

3. Poetic Stylistics: Simplicity, Musicality, and Emotional Intensity

Among the defining characteristics that establish Skënder Rusi as a representative voice of contemporary Albanian lyric poetry is his distinctive poetic style. His poetry combines several elements that together create a recognizable lyrical voice, including linguistic simplicity, clarity of imagery, a notable musicality of rhyme, accessible and gentle metaphors, and an intense emotional intimacy. These stylistic features allow his poetry to achieve a balance between aesthetic refinement and communicative immediacy, making it both artistically expressive and accessible to a wide readership.

From a broader theoretical perspective, lyric poetry often relies on the condensation of emotional experience into a language that is both suggestive and musical (Culler, 2015). In Rusi‘s case, this lyrical condensation is achieved not through complexity or obscurity but through a deliberate stylistic economy that privileges clarity, rhythm, and emotional authenticity.

3.1 Simplicity as an Aesthetic Choice

One of the most distinctive aspects of Rusi‘s poetic language is its apparent simplicity. His poetry does not seek to be hermetic or obscure; rather, it approaches the reader through a clear, direct, and emotionally resonant language. This stylistic choice reflects a conscious aesthetic orientation that privileges communication and emotional clarity over intellectual opacity. In many of his poems, the language appears transparent and natural, yet beneath this apparent simplicity lies a carefully crafted poetic structure. The images he employs are vivid and evocative, while the emotional tone remains sincere and immediate. Such stylistic clarity allows the reader to engage directly with the poetic experience without the mediation of overly complex symbolic or intellectual structures.

For this reason, Rusi may be considered a poet of sonic beauty within the Albanian language. His poetic diction preserves the natural musical qualities of Albanian while shaping them into lyrical forms that emphasize emotional resonance. As literary critics often note, simplicity in lyric poetry is rarely a sign of artistic limitation; rather, it frequently represents a refined aesthetic strategy aimed at achieving expressive precision (Frye, 1957).

3.2 The Musicality of the Verse

Another essential feature of Rusi‘s poetry is the musicality of his verse. His poetic lines often unfold through a calm and harmonious rhythm, creating a lyrical flow that resembles a soft and intimate narrative voice. This rhythmic structure situates his poetry within the broader tradition of lyrical harmony, while at the same time incorporating elements of contemporary sensibility. The musical dimension of his poetry is particularly evident in his use of rhyme and rhythmic patterns. However, these formal elements do not appear as rigid technical devices imposed upon the poem. Instead, they emerge organically from the poetic structure itself, contributing to the melodic quality of the verse.

In this sense, Rusi‘s poetry appeals not only to the visual imagination of the reader but also to the auditory experience of the text. His poems are not meant solely to be read silently; they often reveal their full aesthetic richness when spoken aloud. The harmony of rhythm and sound allows the reader or listener to experience the poem as both an intellectual and sensory encounter. Such musicality is a defining feature of lyric poetry, which traditionally seeks to unite language, rhythm, and emotional expression within a single aesthetic form (Abrams, 1999).

3.3 Symbolism and Metaphorical Language

Skënder Rusi frequently employs metaphors drawn from nature, urban life, and everyday experience in order to construct a complex emotional dimension within his poetry. These metaphors are generally accessible and transparent, avoiding excessive abstraction while still maintaining symbolic depth.

Nature imagery, in particular, plays an important role in his poetic symbolism. Natural elements often function as mirrors of emotional states, reflecting love, longing, nostalgia, or existential reflection. At the same time, images drawn from everyday life help anchor his poetry within recognizable human experiences, reinforcing its communicative power.

Through this combination of symbolic imagery and emotional clarity, Rusi creates a poetic discourse that remains accessible to a broad audience while still preserving a strong lyrical depth. The effectiveness of this approach lies in its capacity to transform familiar images into vehicles of emotional meaning, allowing readers to recognize their own experiences within the poetic landscape.

4. Skënder Rusi in the Context of Tradition and Modernity

The characterization of Skënder Rusi as a representative voice of contemporary Albanian lyric poetry is also supported by his relationship with the broader tradition of Albanian poetic writing. His work demonstrates a dynamic interaction between continuity and innovation, positioning him at the intersection of inherited lyrical traditions and modern poetic sensibilities.

4.1 Continuity with the Albanian Lyric Tradition

Rusi continues the tradition of Albanian poets who have explored the theme of love as one of the central motifs of lyrical poetry. In this sense, his work may be seen as part of a broader

poetic lineage that begins with the early Albanian romantic poets and continues through the major lyrical voices of the twentieth century.
Within this tradition, Rusi inherits several essential poetic elements:

- the softness and emotional fluidity of the lyrical line,
- the frequent use of natural imagery,
- a deep devotion to the aesthetic exploration of beauty.

These elements situate his poetry within the historical continuity of Albanian lyricism while allowing him to reinterpret this tradition through his own sensibility and poetic voice.

4.2 The Integration of Modern Poetic Sensibility

Despite his connection to tradition, Rusi's poetry also incorporates clear elements of contemporary poetic thought. His work reveals:

- a deep introspective dimension,
- a sublimated form of erotic expression,
- a more direct emotional discourse,
- a strong sense of poetic individuality.

These elements reflect the evolution of modern lyric poetry, in which the exploration of the inner self becomes central to poetic expression. The fusion of these modern characteristics with traditional lyrical forms allows Rusi to function as a bridge between past and present poetic traditions. Through this synthesis, he occupies a central position within the development of contemporary Albanian poetry, especially in the transition toward the poetic sensibilities of the new millennium.

5. Reception and Critical Evaluation

The presence of Skënder Rusi in international poetic anthologies demonstrates that his poetry has transcended the boundaries of the Albanian language. This wider reception is largely due to the universality of the themes he explores. Love, intimacy, the perception of beauty, and emotional reflection are experiences that resonate with readers across cultures and linguistic traditions. Because of this universality, Rusi's poetry has proven capable of establishing a dialogue with readers both within and outside the Albanian literary sphere.

5.1 Reception within Albania

Within Albanian literary culture, Skënder Rusi is widely recognized as a poet of emotional depth, passion, and artistic sincerity. Since his first appearance on the Albanian literary scene in the 1970s, his poetry has been read and interpreted as a direct expression of lyrical sensitivity and inner human experience. Albanian literary criticism has consistently emphasized several key qualities that characterize his poetic work: the clarity of emotional expression, the consistency of his artistic vision, and the richness of his poetic imagery. Critics have frequently noted that Rusi's poetry does not attempt to construct a complex intellectual discourse; rather, it seeks to establish a direct connection with the reader through a restrained, sincere, and emotionally warm lyrical voice.

Within the broader context of Albanian poetry from the second half of the twentieth century to the beginning of the twenty-first century, Rusi‘s work represents a distinctive case in terms of its aesthetic and thematic continuity. Unlike many other Albanian poets whose work is often divided into two distinct periods—one associated with the era of socialist realism and the other with the period of democratic transformation—Rusi‘s poetry displays a remarkable internal coherence and artistic continuity.

This continuity has also been noted by Albanian literary critics. Reflecting on Rusi‘s poetry, Dritëro Agolli observed that his work does not undergo such a radical internal rupture. Instead, it remains connected through a continuous line of lyricism and poetic meditation. According to Agolli, even during the most difficult historical and cultural periods, Rusi remained a poet of sensitivity and reflection—a lyrical voice that confronts nature and life through the lens of human experience and recognizes suffering as an unavoidable dimension of existence.

In this sense, Rusi‘s poetry is built upon a persistent tension between individual experience and universal reflection. Pain, disappointment, love, and solitude do not appear merely as sentimental motifs in his poetry; rather, they emerge as existential experiences that shape the structure of poetic thought. This tendency elevates his work beyond a conventional emotional lyricism and situates it within a broader reflection on life and the human condition.

Agolli further observes that two aesthetic tendencies coexist within Rusi‘s poetry: existentialism and impressionism. Existentialism appears in the poet‘s reflections on the fate of the individual, on suffering, and on the relationship between the human being and the world. In many of his poems, the individual is portrayed as a figure caught between the desire for love and meaning and the often disillusioning realities of life.

Impressionism, on the other hand, is reflected in the poet‘s sensitivity to fleeting emotional states and subtle perceptions of reality. Through delicate nuances and atmospheric imagery, Rusi constructs a poetic language that captures the ephemeral quality of lived experience. These two tendencies do not function as separate aesthetic frameworks but rather intertwine organically, producing a poetry that seeks not merely to describe reality but to penetrate its deeper emotional and existential layers.

Another aspect frequently highlighted by critics is the musicality of Rusi‘s verse. A significant number of his poems are structured around rhyme and rhythm; however, this rhyme does not appear as an imposed formal device but rather as an organic element of the poetic structure. Critics have noted that in Rusi‘s poetry rhyme functions less as a technical mechanism and more as a source of harmony and melodic resonance.

Through this natural musicality, his verse achieves a delicate balance between the simplicity of expression and the richness of poetic imagery, reaffirming his place within the broader tradition of Albanian lyrical poetry.

Precisely for this reason, within the broader panorama of contemporary Albanian poetry, Skënder Rusi is regarded by many scholars and critics as one of the most significant representatives of modern Albanian lyricism. His poetry is distinguished by its sensitivity in portraying human relationships and by the way it constructs a continuous alliance between the individual and nature. In Rusi‘s poetic universe, nature is not merely an aesthetic background but a symbolic space onto which the poet projects emotions, memories, and inner experiences. Through this symbolic interaction, natural imagery becomes an essential component of the lyrical structure of his work. Landscapes, seasons, and natural elements frequently function as mirrors of emotional states, allowing the poet to translate subjective experience into a broader poetic language. In this sense, nature operates as a mediating element between the inner world of the poet and the external reality surrounding him.

Within this framework, Rusi‘s lyricism may be understood as a form of poetic meditation on life, love, and transience. His poetry often reflects on the fragility of human existence and on the fleeting nature of emotional experience, while simultaneously affirming the enduring value of beauty, intimacy, and emotional connection. Such themes place his work within the broader tradition of modern lyric poetry, which frequently transforms personal experience into a reflection on universal human concerns (Culler, 2015).

For these reasons, Skënder Rusi occupies an important place among the most prominent voices of the contemporary Albanian poetic community. His poetry succeeds in combining emotional sincerity with aesthetic clarity, creating a lyrical discourse that resonates with both the personal and the universal dimensions of human experience.

5.2 International Reception

The inclusion of Skënder Rusi‘s poetry in several international anthologies reinforces the idea that he should not be viewed solely as a national poet but also as a poetic voice with broader universal potential. The presence of his work in such collections indicates that the themes, emotions, and stylistic qualities that characterize his poetry possess a communicative power capable of transcending linguistic and cultural boundaries.

This international reception is closely linked to the universality of the thematic core of his poetry. Motifs such as love, emotional intimacy, longing, and the contemplation of beauty represent experiences that resonate across different cultural traditions. As a result, Rusi‘s poetry is able to establish a dialogue with readers beyond the Albanian literary sphere.

Moreover, the translation and dissemination of his poems in international contexts demonstrate the adaptability of his lyrical voice within the global landscape of contemporary poetry. Although rooted in the Albanian cultural and linguistic tradition, his poetic language retains an emotional clarity that allows it to be understood and appreciated by audiences from diverse cultural backgrounds.

In this sense, the international reception of his work confirms that Skënder Rusi‘s poetry possesses not only national literary significance but also a broader human and aesthetic relevance, situating him among those poets whose lyrical voice speaks to universal aspects of the human condition.

6. The Poetic Art of Skënder Rusi through Selected Poems [3]

The poetic art of Rusi is unified and inseparable in every segment of the time we live in. Skënder Rusi‘s poetry captures every kind of spiritual state, with that finely nuanced expression of the rare poetic sensibility that characterizes his work.

—*It is not the sky, after all,*
that above us turns blue,
but my eye, which—who knows—
you magnify a million times.

It is not a bird there
that above the tree is chirping,

[3] Rusi, Skënder. Mos m'i merrni mbrëmjet: poezi, Shtëpia botuese Onufri, Tiranë, 2017 -202 f.

but my heart that, for reasons unknown,
left my chest and became a bird.‖[4].

Nature and the human being, within an inseparable universe, become one. For the heart, in order to express what it feels, neither the word nor the gesture alone is enough; it seeks transformation: the bird that flutters, flies, and sings.

The poet's creative age, at once spiritually youthful and deeply enriched by experience, seems to pray, to rebel, to confess itself, and to erupt. Thus, we are confronted not merely with a natural biological process, but with a breath that reaches toward the limits of the impossible. Air here is identified not only with the molecules of hydrogen and oxygen, but also with the alphabet of the soul, with the symbiosis of humanism, with the beauty of life and everything it offers in its most sublime dimension.

When love departs, air departs with it. For this reason, within a broader and encompassing context that extends beyond a single fleeting moment, the poet cries out:

"If you do not return, at least give me back my breath."

—*How empty this city is without you,*
how empty.
You left, taking the air with you.
Now I am weightless, as if I were in the cosmos.
Send a ship to carry me away,
otherwise give me back my breath.‖[5].

No one took the poet's evenings from him; rather, he has taken the evening of all of us—his readers, who cherish and love his poetry. For only a truly enlightened poet can illuminate others as well.The author has long been a companion to his readers and a sensitive spirit in verse. It is often said that poets live short lives, that they burn themselves in order to give light to others. This idea can be applied most fittingly to Skënder Rusi, both as a person and as a poet.

Rusi's poetry is deeply emotional, distinguished by the poet's constant spiritual desire to describe with subtlety his inner experiences—his solitude, his sorrow, his love, and the pain of passing time. His verses evoke the nostalgia of unfulfilled loves and the memory of beloved people who have departed for the heavens, perhaps even to make us mortals here on earth a little jealous. Many of his poems are permeated by the sadness and melancholy of time passing and by the drama of the poet as a human being who carries an eternal spring within his soul. For this reason, the poet remains inwardly fragile and sensitive, even when the world around him becomes harsh and aggressive.

—*It has been years*
that winter has been my brother,
and its wild wind
my sister.
The three of us together have stolen sorrow
so that this world may be a little more joyful.‖[6].

[4]Po aty, f. 11
[5]Po aty, f. 25
[6]Po aty, f. 55

Being at once a spiritual autobiography and a universal human testimony, the landscapes of feeling that emerge in these poems inevitably create a vivid fresco, rich in color, where diverse emotional contours come to life. Poetry is a cross-section of the soul, and many poems are nothing less than pure soul. Poetry continues to be read because times evolve. Humanity moves steadily toward modernity, yet the essence of the human being has remained spiritual since the earliest stages of creative evolution. The delicate nuance of feeling, the fluidity, and the passion that permeate Skënder Rusi‘s poetry represent genuine poetic innovations.

If we compare the poems of his earlier volumes, we consistently encounter a poet whose principal dimension is humanism—a poet who does not alter the fundamental structures of his verse each time poetic styles change, but who preserves his own unmistakable individuality. This individuality is marked by simplicity, harmony, and the musicality of the line, and above all by an emotional depth that, despite changes in historical or social systems, continually strives to remain true to itself.

Reading with deep engagement this inalienable and original poetry, we gradually assemble—almost metonymically—a fragile and beautiful mosaic. This mosaic is nothing other than the mosaic of a human life: of individual and universal pain that accompanies the human being from birth to death.

―*Death torments me, and life even more,*
the two walk along the same road.
If in the first it is silence that gives the orders,
in the second, it is I who command‖[7].

Within the intricate labyrinth of life, where pain is ever-present, the poet suggests that suffering ultimately ennobles the human being. Painful experiences and the dignified way in which they are endured refine the human spirit; for this reason, the poet speaks with the voice of a sensitive human consciousness:

―*One must turn the head back,*
to see the age that has passed,
to see the years that have stepped backward,
to see the mistakes that must not be repeated.‖[8].

This represents one of the most sincere and beautiful affirmations of life, for life is created in precisely this way and will continue to unfold so that human beings, through diverse spiritual experiences, may shape the contours of their inner world.

Yet the poet remains steadfast in feeling the vitality of his spirit and proclaims with strength:

―*The rain has turned to snow*
in your soul, but not in mine.
I carry enough fire within me
to melt the winter of the whole world,
not only yours.‖[9].

The feminine portrait shines vividly throughout Rusi‘s poetry. The figure of woman appears in a universalized form: as beloved, as wife, as mother—always beautiful, charming, and inspiring. Yet this is not all. Love, in his poetry, extends beyond physical beauty. A poet who

[7] Po aty, f. 100
[8] Po aty, f. 45
[9] Po aty, f. 119

knows how to offer love to the entire world also possesses the sensitivity to offer to a woman the love she truly deserves:

—If one day I should leave,
you will suffer from my leaving.
If yesterday you loved me a little,
tomorrow you will love me more.‖[10].

Lyrical depth and sensitivity—two defining features of Skënder Rusi‘s poetic individuality—remain consistently delicate and meaningful, especially when they reveal unspoken dimensions of life and of the self. His poetry unfolds in a landscape filled with the beating wings of strange birds that sometimes wander in pursuit of mystery. In this way, the poet reveals psychological intimacies that resonate with the phenomena of nature and with the inner life of the human spirit. At times, the melancholic background that frames his poetry is refracted through the lyricism of feeling, which penetrates the internal structure of the verse and renders it more expressive.

The lyricism of Skënder Rusi is a form of poetry permeated by a beautiful, simple, and spontaneous emotion, much like that which characterizes human nature itself. Even when the poem takes on strong dramatic tones, dark shades of feeling, a mood overwhelmed by sorrow, or when it assumes the shape of a warm and gentle idyll, his poetry remains defined by the depth and sincerity of emotion. The poet expresses this emotion exactly as he experiences it. For this reason, a large number of his lyrical poems can be regarded as intimate monologues of the poet.

The emotional fluctuations within his poetry shape the principal characteristics of Rusi‘s poetic-lyrical style. The tension of feeling creates the impression that the boundaries between joy, anger, suffering, and sorrow dissolve into one another. All these states are presented with delicate detail, unusual oscillations, and multiple psychological nuances.

The profound and penetrating lyricism that weaves through all of his poetry arises from the fact that each poem places at its center a warm and intimate confession by the poet—an expression of what he experiences and of the rich inner world filled with sensations, dreams, and desires. These elements find their expression through the richness of the poet‘s metric and stylistic system. In Rusi‘s poetry, inspiration is fundamentally emotional; it springs from the depths of the soul, and therefore it avoids artifice and rhetorical exaggeration. The sensations that are stirred and released are varied and luminous, sparkling like diamonds.

Through the sensibility that Skënder Rusi constructs in his poetry, readers are also able to perceive the remarkable expressive value of the Albanian language, with its subtle internal nuancës, qualities that only a true master of words can reveal through verse. For this reason, his poetry will remain widely receptive and appreciated, since every human being can find within it a philosophy of life, beautifully unfolded through the richness of poetic expression.

The verses of Skënder Rusi resemble a kind of diary of a man deeply in love with the world, a world he observes from many different perspectives:

—I believe in the miracles of Christ.
Your darkness will surely pass.
If you seek a fragment
of the soul,
cut open the chest and you will surely find.‖[11].

[10]Po aty, f. 84

Skënder Rusi represents a clearly defined poetic profile. The vitality of his thought harmonizes with a deep emotional sensibility, allowing him to convey the poetic message both explicitly and implicitly. His rich poetic imagination penetrates the essence and depth of the noisy world that surrounds us.
His lyricism is emotional, melodious, and marked by original figurative language. Words emerge within a poetic structure of synthesis, where the expressive richness of the Albanian language is employed with remarkable mastery. Rusi's poetry is refined and vibrant, yet at the same time noble in tone, a polyvalent poetry that readers of today, as well as future generations, will never tire of reading.

Conclusion
The poetic universe of Skënder Rusi reveals a lyrical voice that transcends the limits of time and circumstance. His poetry does not merely belong to a specific literary moment or historical context; rather, it emerges as a form of enduring lyrical expression capable of speaking to the permanent emotional needs of human beings. At the heart of this poetic voice lies an acute sensitivity to the fragile balance between suffering and hope, between the weight of human experience and the desire for spiritual renewal.
Rusi's lyricism demonstrates that poetry can function as a space where pain is neither concealed nor amplified for dramatic effect, but transformed into a shared emotional experience. His verse possesses the rare capacity to resonate with the reader's inner world, allowing personal suffering to become a collective reflection on the human condition. In this sense, his poetry does not merely describe pain; it gives it rhythm, voice, and meaning, turning it into an element of spiritual awareness.
One of the most enduring qualities of Rusi's poetry lies in its ability to humanize experience. Through a language that is at once simple and deeply expressive, he constructs a poetic discourse where emotional vulnerability becomes a source of strength. His lyric voice recognizes the inevitability of sorrow, yet it refuses to surrender to despair. Instead, it transforms sorrow into tenderness, reflection, and understanding. In doing so, his poetry offers readers a form of quiet consolation, suggesting that even within the most difficult experiences there remains the possibility of beauty and emotional clarity.
This capacity to transform inner turmoil into lyrical harmony is what gives Skënder Rusi's poetry its lasting significance. His verses function not only as artistic creations but also as emotional bridges between the poet and his readers. Through them, individual experience becomes communal, and private reflection becomes a shared space of empathy.
For this reason, Skënder Rusi may be regarded as one of those lyrical voices whose poetry continues to vibrate beyond the boundaries of its time. His work reminds us that authentic lyric poetry does not merely reflect the world—it softens it, illuminates it, and renders it more humane. By giving voice to pain while simultaneously transforming it into poetic beauty, Rusi's poetry invites readers to see life not only as it is, but also as it might become: more compassionate, more reflective, and ultimately more human.

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[11]Po aty, f. 115

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DIGITAL TRANSFORMATION AND TOURISM: DRIVING SUSTAINABLE REGIONAL DEVELOPMENT IN THE DIGITAL AGE

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Abstract
The digital transformation of the tourism sector plays a critical role in fostering sustainable regional development, particularly in emerging destinations such as Korçë and other areas across Albania. This paper examines how digital technologies—ranging from online booking platforms and mobile applications to social media and data analytics—are reshaping travel behavior, enhancing destination visibility, and improving tourism management. With smart tools enabling more efficient resource allocation, personalized visitor experiences, and real-time safety monitoring, digital innovation is not only optimizing service delivery but also contributing to the broader objectives of regional resilience and competitiveness. The study explores the intersection of smart tourism and regional planning, highlighting how digital infrastructure and strategic coordination among public and private actors can transform local economies while preserving cultural and environmental assets. By reflecting on global trends and local potentials, this contribution underscores the importance of embracing digital change to integrate challenges and opportunities for a more inclusive and sustainable future in regional tourism development.

Keywords: *Digital transformation, sustainable regional development, global trends, smart tourism, tourism sector.*

1. INTRODUCTION

1.1 The Role of Tourism in Regional Development

Tourism is increasingly recognized as a significant driver of regional economic development, particularly in peripheral or less industrialized regions. According to Glavan (2018)[1], tourism contributes to regional growth by generating employment, stimulating investment, and producing multiplier effects that extend beyond the tourism sector itself. The author emphasizes that tourism supports local entrepreneurship and encourages the development of small and medium-sized enterprises, especially in accommodation, gastronomy, and cultural services. These spillover effects strengthen local supply chains and enhance economic diversification. In emerging destinations such as Korçë, tourism can therefore function as a strategic instrument for reducing regional disparities and promoting economic resilience.

Beyond its economic dimension, tourism also plays a crucial role in strengthening regional identity and supporting sustainable territorial development. Stoian and Banacu (2024)[2] argue that tourism development must be integrated into broader regional planning frameworks in

[1] Glavan, G. (2018). Tourism as a driver of regional development. *Studies in Business and Economics, 13*(3), 59–67. https://savearchive.zbw.eu/bitstream/11159/15953/1/1846494788_0.pdf
[2] Stoian, E., & Banacu, L. (2024). Regional development and tourism integration. *Economics and Applied Informatics, 1*, 62–70. https://ea21journal.world/wp-content/uploads/2024/04/EA-XXI-V204-05.pdf

order to ensure balanced growth and long-term sustainability. They highlight that tourism enhances territorial attractiveness while also encouraging the preservation of cultural heritage and local traditions. However, both authors underline that tourism‘s positive impact depends on effective governance and sustainable management. Without strategic coordination, tourism may generate environmental pressure or unequal benefit distribution. Therefore, integrating tourism policy with regional development strategies is essential for achieving inclusive and sustainable growth.

2. LITERATURE REVIEW

2.1 Digital Transformation in Tourism

Digital transformation has significantly reshaped the tourism industry over the past two decades. Buhalis and Law (2008)[3] argue that information and communication technologies (ICTs) have fundamentally transformed tourism distribution systems, marketing strategies, and customer engagement. The development of online booking platforms, mobile applications, and digital payment systems has altered how travelers search for information, make decisions, and consume tourism services. Later studies further emphasize that digitalization enables personalization, real-time communication, and data-driven management, increasing both efficiency and competitiveness in tourism destinations (Buhalis & Amaranggana, 2015)[4].

More recent research highlights that digital transformation extends beyond marketing and booking systems. It includes the integration of big data, artificial intelligence (AI), cloud computing, and smart technologies into tourism management (Gretzel et al., 2015)[5]. These innovations allow destinations to monitor visitor flows, predict demand, and improve service quality. Digital ecosystems are therefore becoming central to the competitiveness of both large urban centers and smaller emerging destinations.

2.2 Smart Tourism and Smart Destinations

The concept of smart tourism is closely linked to smart city development. Smart tourism refers to the use of advanced technologies to enhance visitor experiences, improve operational efficiency, and support sustainable development (Gretzel et al., 2015)[6]. According to these authors, smart destinations integrate physical infrastructure, digital systems, and human capital to create value for both tourists and residents.

Smart destinations rely on interconnected systems such as IoT (Internet of Things), sensors, open data platforms, and digital communication tools. These technologies enable real-time data collection and analysis, which supports better decision-making in tourism planning and management. For regional areas, smart tourism offers opportunities to overcome structural

[3] Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management. *Tourism Management*, 29(4), 609–623.

[4] Buhalis, D., & Amaranggana, A. (2015). Smart tourism destinations enhancing tourism experience through personalization of services. In I. Tussyadiah & A. Inversini (Eds.), *Information and Communication Technologies in Tourism 2015* (pp. 377–389). Springer.

[5] Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: Foundations and developments. *Electronic Markets*, 25(3), 179–188.

[6] Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: Foundations and developments. *Electronic Markets*, 25(3), 179–188.

[7]limitations by increasing visibility, optimizing resource allocation, and fostering innovation (Boes, Buhalis, & Inversini, 2016)[8].

2.3 Tourism and Sustainable Regional Development

Tourism has long been considered a catalyst for regional development, particularly in areas with limited industrial diversification (Sharpley & Telfer, 2015) [9] . It contributes to employment generation, infrastructure development, and cultural preservation. However, the sustainability of tourism-led development depends on governance, planning, and community involvement.

Recent literature stresses that digital technologies can support sustainable regional development by enabling better monitoring of environmental impacts and promoting responsible tourism practices (UNWTO, 2019)[10]. When tourism strategies are aligned with regional planning and digital innovation policies, destinations can achieve balanced growth while preserving local identity and natural resources.

For emerging destinations such as those in Albania, the integration of digital transformation into tourism policy represents both a challenge and an opportunity. The literature suggests that combining smart technologies with inclusive governance models enhances resilience, competitiveness, and long-term sustainability.

3. Methodology

This study adopts a qualitative research design based on conceptual analysis and secondary data examination. The research integrates theoretical literature on digital transformation, smart tourism, and regional development with empirical evidence drawn from official statistical sources. The objective is to explore how digital innovation contributes to tourism-led regional development, with particular focus on the case of Korçë, Albania.

The study relies on secondary data obtained from national and institutional reports, including the *Tourism Bulletin December 2024* published by the Ministry of Tourism and Environment, as well as data from cultural institutions and protected area authorities. These data sources provide quantitative indicators such as visitor growth rates, cultural tourism statistics, and protected area visitation trends. The statistical analysis is descriptive in nature, aiming to identify growth patterns and regional performance differences rather than establish causal relationships.

In addition to statistical data, the research applies a comparative and analytical approach to interpret how digital tools and smart infrastructure contribute to destination competitiveness. The conceptual framework is informed by established theories of smart tourism, regional governance, and digital transformation. The case of Korçë is used as an illustrative example to demonstrate how emerging destinations can integrate digital strategies within broader regional planning mechanisms.

The methodological approach is therefore exploratory and policy-oriented. Rather than testing hypotheses, the study seeks to identify strategic implications and provide recommendations

[8] Boes, K., Buhalis, D., & Inversini, A. (2016). Smart tourism destinations: Ecosystems for tourism destination competitiveness. *International Journal of Tourism Cities*, 2(2), 108–124.

[9] Sharpley, R., & Telfer, D. (2015). *Tourism and development: Concepts and issues* (2nd ed.). Channel View Publications.

[10] UNWTO. (2019). *Global report on tourism and smart destinations*. World Tourism Organization.

for regional stakeholders. This integrated approach allows for a comprehensive understanding of the relationship between digital transformation and sustainable regional tourism development.

4. Rise of Digital Transformation in Tourism

In recent years, digital transformation has changed the way people travel and how tourism businesses operate. Digital tools such as websites, mobile apps, and online booking platforms make it easier for people to plan and organize their trips. Travelers can now search for destinations, compare prices, read reviews, and book everything in just a few clicks. This has made tourism more accessible and flexible, especially for younger generations who are used to using technology every day. At the same time, tourism companies and local businesses have had to adapt to new ways of working, using digital marketing, online communication, and data analysis to stay competitive and attract more visitors.

The impact of digital transformation is not only seen in travel planning but also in how tourists experience a destination. With smartphones and mobile apps, tourists can find nearby restaurants, activities, or cultural events in real time. Social media platforms like Instagram and Facebook have become powerful tools for sharing travel experiences and influencing others‘ decisions. Additionally, new technologies such as virtual tours, QR codes, and AI-powered customer service are creating more interactive and personalized experiences. In countries like Albania, where tourism is a growing sector, digital tools are helping smaller destinations like Korçë to reach international tourists and promote their unique attractions. As technology continues to develop, digital transformation will remain a key factor in shaping the future of tourism and supporting regional growth.

4.1 Focus on emerging destinations like Korçë, Albania

The region of Korçë in southeastern Albania is increasingly emerging as a promising tourism destination, with strong potential to support sustainable regional development. Korçë sits at an altitude of about 850 m and is surrounded by the Morava Mountains, offering a combination of rich cultural heritage and natural beauty. Its historic city centre, including the Old Bazaar with cobblestone streets and traditional architecture, reflects its long history and vibrant identity. For a region looking to enhance its economic resilience and extend the benefits of tourism beyond the main urban centres, Korçë provides an example of how under-visited regions can harness their unique assets to attract visitors and boost local livelihoods.

Digital technologies can play a key role in unlocking this potential for Korçë and similar emerging destinations. Through online platforms, mobile apps and social media, the hidden gems of the region — smaller towns, mountain villages and cultural sites — can be made more visible to international travellers. In the Korçë region, the combination of strong heritage, natural landscapes and growing tourism interest means that digital promotion and smart destination management can support visitor dispersal, reduce pressure in more popular zones, and channel tourism benefits into more remote communities. When local authorities and businesses collaborate on digital infrastructure, data-driven visitor management and authentic local experiences, destinations like Korçë can move from niche attraction to sustainable tourism growth hubs that contribute to broader regional development goals.

5. Key Digital Technologies Shaping Tourism

5.1 Online Booking Platforms (e.g., Booking.com, Airbnb)

Online booking platforms have transformed the way people plan and organize their travels. Websites such as Booking.com, Airbnb, Expedia, and others allow travelers to search for accommodation, compare prices, read reviews, and make reservations quickly and easily. These platforms offer access to a wide range of options — from hotels and apartments to guesthouses and vacation rentals — giving travelers more freedom and flexibility. They also provide useful features such as maps, customer support, cancellation policies, and real-time availability. This convenience has helped to increase the number of independent travelers and made tourism more accessible to people from different age groups and backgrounds.

For tourism businesses, these platforms are an essential part of marketing and visibility. Small hotels, guesthouses, and local hosts in regions like Korçë can use Booking.com or Airbnb to reach a global audience without the need for expensive advertising. This means that even businesses in remote or less-developed areas can benefit from tourism. In addition, user-generated content — such as reviews and ratings — helps to build trust between hosts and travelers. The platforms also use data and algorithms to recommend personalized options, improving the customer experience. In conclusion, online booking platforms support both travelers and businesses by simplifying the booking process, improving visibility, and promoting fair competition in the tourism market.

5.2 Mobile Apps and User Reviews (TripAdvisor, Google Maps)

Mobile apps have become essential tools for modern travelers. Apps like **T**ripAdvisor, Google Maps, Booking.com, and Citymapper offer important information that helps people plan and enjoy their trips more easily. Travelers can search for attractions, find the best restaurants, check opening hours, and get directions — all from their smartphones. Google Maps, for example, allows users to navigate unfamiliar cities, see real-time traffic, and explore nearby places of interest. TripAdvisor offers suggestions based on location and user ratings, helping travelers make informed choices. These tools provide convenience and flexibility, especially for people who like to travel independently.

User reviews are also a key part of the travel experience today. Before booking a hotel or visiting a restaurant, most people read reviews to see what others have experienced. Positive feedback builds trust, while negative reviews can help travelers avoid unpleasant surprises. Platforms like TripAdvisor and Google Reviews collect millions of user opinions, creating a rich source of information that supports decision-making. For local businesses, reviews are equally important. A good reputation online can attract more guests, especially in smaller or emerging destinations like Korçë. By using mobile apps and paying attention to customer feedback, tourism providers can improve their services and better meet the needs of modern travelers.

5.3 Social Media's Influence on Travel Decisions

Social media has become one of the most powerful tools in shaping travel decisions. Platforms like Instagram, Facebook, TikTok, and YouTube allow users to share photos, videos, and personal experiences from their trips. These posts often inspire others to visit the same places. A beautiful picture of a mountain view, a traditional meal, or a cultural festival can quickly reach thousands of people and create interest in that destination. Travelers are no longer only influenced by official advertisements or travel agencies — they also trust the opinions and experiences of friends, influencers, and even strangers online. This shift has changed the way people choose where to go, what to see, and where to stay.

For tourism destinations, social media is also a valuable marketing tool. It helps places like Korçë promote their local attractions, culture, and hospitality to a much wider audience. Tourism boards, hotels, restaurants, and tour operators can use targeted ads and engaging content to reach potential visitors around the world. Hashtags, geotags, and reviews help build visibility, especially for lesser-known destinations. At the same time, real-time feedback on platforms like Facebook and Instagram allows businesses to respond to guests quickly and improve their services. Overall, social media not only influences travelers' choices but also gives small regions a stronger voice in the global tourism market.

5.3 Data Analytics and Personalization

Data analytics is becoming an essential tool in the tourism industry. Every time a traveler books a hotel, searches for a flight, or posts a review, they leave behind useful data. Tourism companies and destinations can analyze this information to better understand customer preferences, travel trends, and visitor behavior. For example, data can show when people travel the most, which services they use, how much they spend, or what kind of experiences they are looking for. This helps tourism managers make smarter decisions — such as improving services, planning events at the right time, or managing tourist flow to avoid overcrowding.

One of the biggest advantages of using data is the ability to offer personalized experiences. With the help of digital platforms, businesses can recommend activities, hotels, or restaurants based on a traveler's previous searches or preferences. For example, a traveler who loves hiking may receive suggestions for nature trails or mountain tours near their destination. This makes the experience more enjoyable and efficient. In smaller or emerging destinations like **Korçë**, using data to understand and meet the needs of different tourist groups can lead to better satisfaction and stronger local development. In short, data analytics helps tourism become more focused, effective, and visitor-friendly.

6. Impact on Regional Development

6.1 Improving Resource Allocation and Destination Management

One of the main benefits of digital technologies in tourism is the ability to improve resource allocation and manage destinations more efficiently. With the help of data collected from booking platforms, mobile apps, and tourist surveys, local authorities can better understand how many people are visiting a place, when they are coming, and what services they are using. This information allows decision-makers to plan ahead — for example, by increasing public transport during peak seasons or adding staff in busy tourist areas. It also helps reduce overcrowding, avoid long waiting times, and make sure that both visitors and locals have a positive experience.

Destination management also improves when digital tools are used to monitor and guide tourist behavior. Technologies like GPS tracking, smart sensors, and real-time data systems can show how people move through a city or natural site. With this knowledge, local governments can protect sensitive areas, improve traffic flow, or direct tourists to less-visited attractions. In places like Korçë, which are developing their tourism offer, this kind of smart planning ensures that tourism grows in a balanced and sustainable way. Instead of overusing resources or creating pressure on infrastructure, digital destination management helps regions offer better services, protect their environment, and plan for long-term success.

6.2 Enhancing Visitor Experiences and Real-Time Safety

Digital technologies play a key role in creating better and more enjoyable experiences for tourists. Mobile apps, interactive maps, and virtual guides help visitors explore a destination more easily and independently. For example, apps can provide information about attractions, opening hours, walking routes, and local restaurants, all in one place. Tourists can also use audio guides, AR (augmented reality), or QR codes to learn more about the history and culture of the places they visit. These tools make the experience more engaging and allow travelers to discover hidden spots and local stories that they might otherwise miss.

At the same time, real-time safety features are becoming more important in tourism. With digital alerts and location tracking, tourists can receive instant updates about weather conditions, road closures, or health warnings. In case of emergencies, mobile apps can guide users to the nearest help center or connect them with local services. For example, during the COVID-19 pandemic, many countries developed travel apps to inform tourists about safety rules, vaccination centers, or crowded areas to avoid. For regional destinations like Korçë, using digital tools for safety builds trust and confidence among visitors, encouraging them to return and recommend the place to others. When tourists feel informed and protected, they enjoy their trip more and are more likely to explore the area in depth.

6.3 Supporting Environmental Sustainability

Digital technologies can help tourism become more environmentally sustainable by improving how natural resources are used and protected. Many destinations now use smart systems to monitor energy use, water consumption, and waste production. For example, hotels and resorts can use digital tools to track how much electricity or water is being used and make changes to reduce waste. Some tourism businesses also use renewable energy solutions like solar panels or smart lighting systems to lower their carbon footprint. These tools make it easier for regions to protect the environment while still welcoming tourists.

Technology also helps reduce the pressure on popular areas by guiding visitors to less crowded places. With tools like mobile apps, real-time maps, and tourist flow data, local governments can create balanced tourism strategies that protect nature and reduce damage to sensitive locations. For example, in natural parks or mountain areas near Korçë, digital systems can limit the number of visitors at one time or give tips for responsible behavior in nature. Information campaigns shared online can also educate travelers about how to respect local culture and the environment. In this way, technology supports long-term sustainability by helping both visitors and destinations make smarter and more eco-friendly choices.

6.4 Boosting Economic Resilience and Competitiveness

Digital transformation helps tourism destinations become more economically resilient by creating new opportunities for growth and reducing their dependence on traditional markets or seasons. With the help of online booking platforms, social media, and digital marketing, even small businesses in remote areas can attract visitors from around the world. This creates more income for local communities and supports jobs in accommodation, food services, transport, and cultural activities. For example, guesthouses and family-run businesses in Korçë can now compete with larger companies by promoting their services directly to international tourists online. This makes the tourism economy more flexible and less vulnerable to global crises or seasonal changes. In addition, digital technologies make destinations more competitive by allowing them to offer better services and unique experiences. Tools such as personalized recommendations, real-time information, and mobile-friendly websites help destinations stand out in a crowded market. Destinations that invest in smart technologies, digital skills, and innovation are more likely to attract return visitors and build a strong reputation. For regions like Korçë, using digital tools not only supports tourism growth but also encourages innovation in other local sectors, such as agriculture, crafts, and cultural industries. As a result, tourism becomes a key part of a broader regional development strategy that is sustainable, competitive, and future-ready.

7. Smart Tourism and Regional Planning

7.1 Importance of Smart Infrastructure

Smart infrastructure represents a fundamental component of modern tourism systems, particularly within the broader framework of smart city development. According to Caragliu, Del Bo, and Nijkamp (2011)[11], smart cities rely on digital connectivity, innovation, and infrastructure integration to enhance urban competitiveness and quality of life. Within tourism contexts, smart infrastructure includes public Wi-Fi networks, sensor-based monitoring systems, digital information platforms, and integrated mobility solutions. These technologies support real-time communication, enhance accessibility, and improve visitor satisfaction.
Recent studies highlight that digital infrastructure contributes not only to service enhancement but also to sustainable destination management (Del Chiappa & Baggio, 2015) [12] . For example, sensor-based systems can monitor visitor flows, manage traffic congestion, and assess environmental indicators such as air quality and noise levels. Smart mobility systems and digital signage further improve spatial distribution of tourists and reduce pressure on sensitive areas. For smaller regional destinations like Korçë, investments in smart infrastructure can increase competitiveness while supporting evidence-based planning. By integrating digital systems into local governance structures, destinations can enhance efficiency, strengthen resilience, and improve quality of life for residents and visitors alike.

7.2 Role of Local Governments and Private Stakeholders

The successful implementation of smart tourism strategies requires active collaboration between public institutions and private actors. Governance structures play a decisive role in shaping digital transformation processes within regional tourism systems. Hall (2011) [13] emphasizes that effective tourism governance depends on multi-level coordination, stakeholder engagement, and institutional capacity. Local governments are responsible for creating enabling policy environments, investing in digital infrastructure, and ensuring regulatory frameworks that support sustainable development.

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[11] Caragliu, A., Del Bo, C., & Nijkamp, P. (2011). Smart cities in Europe. *Journal of Urban Technology, 18*(2), 65–82.
[12] Del Chiappa, G., & Baggio, R. (2015). Knowledge transfer in smart tourism destinations. *Tourism Management, 46*, 81–90
[13] Hall, C. M. (2011). A typology of governance and its implications for tourism policy analysis. *Journal of Sustainable Tourism, 19*(4–5), 437–457

Private stakeholders, including accommodation providers, tour operators, and local entrepreneurs, contribute through innovation, service adaptation, and digital marketing practices. Public–private partnerships (PPPs) are particularly effective mechanisms for fostering smart tourism solutions (Dredge & Jamal, 2015) [14] . Through collaborative governance, destinations can co-develop digital platforms, integrated ticketing systems, or smart heritage initiatives. In emerging destinations, such partnerships reduce financial burdens on municipalities while encouraging innovation and shared responsibility. When public authorities and private actors align strategic objectives, tourism ecosystems become more adaptive, competitive, and socially inclusive.

7.3 Strategic Coordination for Sustainable Regional Development

Strategic coordination is essential for integrating tourism within broader regional development frameworks. Regional planning literature stresses that tourism must be embedded within spatial, economic, and environmental policies to ensure balanced growth (OECD, 2020)[15]. Fragmented development can lead to overdependence on tourism or unequal distribution of benefits. Therefore, long-term strategic planning, supported by digital data systems, becomes critical.

Digital governance tools facilitate coordination by enabling data sharing, performance monitoring, and policy evaluation. Open data platforms and regional information systems support evidence-based decision-making and promote transparency. As Rodríguez-Pose (2013) [16] argues, effective regional development depends on institutional quality and collaborative networks among actors. By aligning tourism strategies with digital infrastructure policies and sustainability goals, regions can enhance resilience, protect cultural assets, and stimulate diversified economic growth. For destinations such as Korçë, strategic coordination provides the foundation for transforming tourism from a seasonal activity into a structured pillar of regional development.

8. Case References: Korçë and Other Albanian Regions

Korçë represents a relevant case for understanding how regional tourism development can be supported by digital visibility and increasing visitor demand. According to the official *Tourism Bulletin, December 2024*[17], Albania recorded 11,696,111 foreign visitors during 2024, reflecting a 15.2% increase compared to 2023 (Ministry of Tourism and Environment, 2024, p. 3). This national growth trend provides a favorable context for emerging regional destinations such as Korçë.

Data on cultural tourism show that the Museum of Medieval Art in Korçë recorded 20,991 visitors during January–December 2024, representing a 47% increase compared to 2023 (Ministry of Tourism and Environment, 2024, p. 9). Similarly, the Museum of Education in Korçë maintained stable visitation levels with slight growth (+2%), indicating sustained interest in the region's cultural heritage. At the national level, total visits to cultural institutions increased by 31% in 2024 compared to the previous year (Ministry of Tourism

[14] Dredge, D., & Jamal, T. (2015). Progress in tourism planning and policy. *Tourism Management, 51*, 285–297.
[15] OECD. (2020). *Tourism policy responses to the coronavirus (COVID-19)*. OECD Publishing.
[16] Rodríguez-Pose, A. (2013). Do institutions matter for regional development? *Regional Studies, 47*(7), 1034–1047.
[17] Ministry of Tourism and Environment. (2024). *Tourism bulletin: December 2024*. INSTAT & National Agency of Protected Areas.

and Environment, 2024, p. 10). These figures demonstrate the strengthening role of cultural tourism as a driver of regional attractiveness.
Natural tourism data further highlight Korçë‘s growing importance. According to the National Agency of Protected Areas, protected areas in Korçë County registered 1,029,048 visitors in 2024, marking a remarkable 123% increase compared to 2023 (Ministry of Tourism and Environment, 2024, p. 11). This places Korçë among the most dynamic regions in terms of visitor growth in protected natural areas. Such expansion reflects increasing demand for sustainable and nature-based tourism experiences.
These statistical developments suggest that while physical attractions and heritage assets form the foundation of tourism growth, digital promotion and online accessibility have likely amplified regional visibility. The broader national increase in air travel arrivals (+65.4% compared to 2023) also indicates improved international accessibility, benefiting regional destinations (Ministry of Tourism and Environment, 2024, p. 6).
Beyond Korçë, other Albanian regions such as Gjirokastër and Berat show significant growth in visits to cultural monuments, including Gjirokastër Castle (+21%) and Butrint National Park (+68%) (Ministry of Tourism and Environment, 2024, pp. 9–10). These cases demonstrate that regional tourism development across Albania is increasingly supported by integrated cultural promotion, improved accessibility, and strategic visibility.
Overall, the Albanian case illustrates how regional tourism growth can be reinforced through coordinated policies, infrastructure development, and digital engagement strategies. The combination of statistical growth in visitor numbers and increased online presence indicates that smaller cities such as Korçë are progressively positioning themselves within national and international tourism networks. When combined with smart planning and digital infrastructure investments, these trends support the transition toward more competitive and sustainable regional tourism systems.

9. Conclusion

9.1 Embracing Digital Innovation for a Sustainable Future

The findings of this study indicate that digital transformation represents a strategic opportunity for strengthening tourism-led regional development, particularly in emerging destinations such as Korçë.
Statistical evidence demonstrates significant growth in both cultural and nature-based tourism across Albania, including a 47% increase in visitors to the Museum of Medieval Art and a 123% increase in visits to protected areas in Korçë County in 2024 (Ministry of Tourism and Environment, 2024)[18]. These trends suggest that regional tourism systems are entering a phase of accelerated expansion. However, sustained competitiveness requires systematic integration of tourism strategies with digital infrastructure and regional planning frameworks.
Aligning tourism development with digital transformation and territorial policy is essential for achieving long-term sustainability. Tourism should not operate independently from infrastructure, environmental management, education systems, or local economic policies.

[18] Ministry of Tourism and Environment. (2024). *Tourism bulletin: December 2024*. INSTAT & National Agency of Protected Areas.

As Porter (1998)[19] highlights, regional competitiveness depends on interconnected clusters and institutional coordination. Therefore, digital tools such as data platforms, smart mobility systems, and visitor flow monitoring technologies should support not only promotion but also governance and resource management.
For destinations like Korçë, embedding tourism within broader regional development strategies can ensure balanced growth while protecting cultural and natural assets.

9.2 Encouraging Public–Private Collaboration

Effective digital transformation in tourism requires multi-actor governance structures. Public institutions provide regulatory frameworks and infrastructure investments, while private stakeholders contribute innovation, operational expertise, and market responsiveness. According to Hjalager (2010)[20], innovation in tourism is most successful when supported by collaborative networks that integrate public and private actors.
Public–private partnerships (PPPs) can facilitate the co-development of smart applications, integrated ticketing systems, and digital heritage initiatives. In regional contexts, collaboration reduces financial risk, enhances knowledge transfer, and strengthens institutional capacity. For Korçë and similar destinations, coordinated action between municipalities, tourism enterprises, and educational institutions can create an adaptive and competitive tourism ecosystem.

9.3 Fostering Digital Inclusion and Capacity Building

Digital transformation must be inclusive to prevent territorial and social disparities. Regional areas often face digital skill gaps, limited technological access, and insufficient training opportunities. Van Dijk (2020[21]) argues that digital inequality remains a key challenge in regional development, particularly in peripheral regions. Capacity building through education, vocational training, and entrepreneurship programs is therefore essential. Universities, local development agencies, and tourism boards should collaborate to provide digital literacy programs, data management workshops, and innovation training.
By strengthening human capital, destinations can enhance service quality, improve productivity, and support long-term resilience.

9.4 Future Research and Policy Implications

Future research should further investigate how digital transformation impacts small and medium-sized destinations differently from metropolitan tourism hubs.
Comparative studies across Albanian regions could provide insights into digital adoption patterns, governance models, and sustainability outcomes. Moreover, longitudinal research is needed to assess how digital tools influence environmental performance and regional income distribution over time.
From a policy perspective, governments should prioritize investment in smart infrastructure, open data systems, and innovation-support mechanisms. Clear regulatory frameworks for data protection and ethical digital governance are equally important.

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[20] Hjalager, A.-M. (2010). A review of innovation research in tourism. *Tourism Management*, *31*(1), 1–12.
[21] Van Dijk, J. (2020). *The digital divide*. Polity Press.

As OECD (2020) [22] emphasizes, regional resilience depends on adaptive policy systems capable of responding to technological and economic shifts. By integrating evidence-based planning with digital innovation strategies, Albania can strengthen its transition toward a smart, competitive, and sustainable tourism model.

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DETERMINING THE MINIMUM OPTIMAL SAMPLE SIZE FOR EXPLORATORY STRUCTURAL EQUATION MODELING: A MONTE CARLO SIMULATION STUDY

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Abstract
This study employed Monte Carlo simulations, using real data from a previously validated digital skills assessment based on the Youth Digital Skills Indicator (yDSI) developed by Helsper et al. (2020), involving 603 students, to determine the minimum sample size required for reliable parameter estimation in Exploratory Structural Equation Modeling (ESEM). Evaluation criteria included standard error bias and mean squared error (MSE) for both item loadings and factor correlations. Results showed that standard error bias for factor correlations fell below the conventional 5% threshold at n = 350, while overall estimation bias remained under 10%. Although item loadings reached acceptable bias levels at smaller sample sizes, their MSE values stabilized only at n = 350, indicating consistent precision and reliable estimation. Larger samples (e.g., 450 and 600) provided incremental gains in accuracy, but n = 350 emerged as the lower bound of optimality, balancing statistical reliability, model validity, and resource efficiency. These findings offer empirical guidance for future research employing ESEM, particularly in studies aiming to capture complex, multidimensional constructs under constraints of limited sample sizes and resources.

Keywords: *Monte Carlo Simulation, Exploratory Structural Equation Modeling, Sample Size Optimization, Digital Skills Assessment, Estimated Parameter Bias*

1. Introduction

Determining an appropriate sample size is a foundational concern in quantitative research, especially when employing complex statistical models such as Exploratory Structural Equation Modeling (ESEM). Unlike traditional Confirmatory Factor Analysis (CFA), ESEM allows for cross-loadings and more flexible factor structures, making it particularly suitable for psychometric validation studies (Asparouhov & Muthén, 2009). However, this flexibility also introduces challenges in estimating the required sample size to ensure reliable and valid results.

Sample size decisions are not only methodological but also practical and ethical. Institutional review boards and funding agencies often require researchers to justify their sample size, and reporting standards across disciplines, such as those from the American Educational Research Association (2006), the APA (2008), and CONSORT guidelines (Moher et al., 2010), mandate transparency in sample size determination. An inadequate sample size can lead to underpowered studies, biased parameter estimates, and unreliable standard errors, while excessively large samples may waste valuable resources.

Traditional rules of thumb, such as a minimum of 200 cases or a 10:1 ratio of observations to parameters (Bentler & Chou, 1987; Kline, 2015), are often insufficient. Sample size requirements vary depending on model complexity, data distribution, missing data patterns, indicator reliability, and the strength of relationships among variables (Muthén & Muthén, 2002; Wolf et al., 2013). While parameter estimates may exhibit minimal bias, standard errors are more sensitive and can affect confidence interval coverage. Overestimated standard errors may obscure significant effects, while underestimated ones may exaggerate them. Moreover, a sample may be adequate for unbiased estimates but still lack sufficient power to detect meaningful effects.

In psychometric research, particularly when assessing latent constructs such as digital skills, these issues are magnified. Researchers often rely on textbook formulas (Murphy & Myors, 1998), software tools (Faul et al., 2007) or Soper‘s online sample size calculator (Soper, 2025) to estimate sample size, but these approaches may not account for the nuances of real-world data. A more robust method involves Monte Carlo (MC) simulation, which allows researchers to simulate data based on known population parameters and evaluate model performance across varying sample sizes (Beaujean, 2014; Kelley & Maxwell, 2012; Muthén & Muthén, 2002). Despite its advantages, MC simulation has traditionally required proprietary software and technical expertise, limiting its accessibility.

This study addresses that gap by demonstrating how to use MC simulation with an available software (Mplus, Muthén & Muthén) to determine the minimum sample size required for reliable ESEM modeling. Specifically, it focuses on a validated measurement scale assessing four dimensions of youth digital skills: (1) technical operation, (2) information navigation and processing, (3) communication and interaction, and (4) content creation and production. The scale, tested on a sample of 603 students, showed strong psychometric properties using ESEM. To support future research with limited resources, this study aims to identify the smallest sample size that maintains model quality, balancing statistical rigor with practical feasibility. Key evaluation metrics include parameter bias, standard error bias, confidence interval coverage, and statistical power.

Power analysis is a foundational element in quantitative research design, closely tied to the framework of null hypothesis significance testing (NHST). Although its conceptual roots date back to early statistical theory, it gained widespread recognition through the work of Jacob Cohen in the 1960s (Descôteaux, 2007). Within NHST, the null hypothesis (H_0) typically asserts that a parameter equals zero, while the alternative hypothesis (H_a) posits a non-zero value. Power analysis, in this context, estimates the sample size required to detect a statistically significant effect, assuming H_0 is false.

The procedure involves four interdependent components: (1) sample size, (2) Type I error rate (α), (3) Type II error rate (β) or statistical power ($1–\beta$), and (4) effect size (ES) (Cohen, 1988). These components are mathematically linked, such that specifying any three allows for the computation of the fourth.

While α and β are typically set by convention (e.g., $\alpha = 0.05$, power = 0.80), determining an appropriate effect size is more nuanced. Effect sizes vary across disciplines and measurement contexts, and researchers often lack empirical benchmarks for what constitutes a meaningful or practically significant effect (Cohen, 1992; Grissom & Kim, 2005; Hill et al., 2008). In regression-based models, effect size is commonly represented by standardized regression coefficients or the proportion of variance explained (R^2).

2. PARAMETER ACCURACY PERSPECTIVE

While power analysis remains a standard approach for sample size determination, it has faced increasing criticism for its reliance on statistical significance rather than estimation precision (Bacchetti, 2010, 2013; Cumming, 2014; Wilkinson et al., 1999). An alternative framework, Accuracy in Parameter Estimation (AIPE), offers a more informative strategy by focusing on the precision of parameter estimates, regardless of whether they differ significantly from zero (Kelley & Maxwell, 2003; Maxwell et al., 2007).

AIPE defines accuracy as the discrepancy between an estimated parameter and its true population value, typically measured by mean square error (MSE), which combines both variance (precision) and bias. When estimators are unbiased, greater precision directly improves accuracy (Hellmann & Fowler, 1999).

Unlike traditional power analysis, which often relies on idealized assumptions, AIPE can be implemented using Monte Carlo simulation, allowing researchers to account for real-world data complexities, such as missing values and non-normal distributions. This approach provides a robust and flexible method for determining sample size based on both statistical power and estimation accuracy.

2.1. Monte Carlo simulation

Monte Carlo (MC) simulation is a robust methodological approach for empirically determining sample size requirements under realistic data conditions. In MC studies, synthetic datasets are generated based on hypothesized population parameters, and the specified model is estimated across a large number of replications. This process allows researchers to evaluate model performance and statistical properties under controlled conditions, including key evaluation criteria, such as: Relative Parameter Bias, Relative Standard Error Bias, Mean Squared Error (MSE), Confidence Interval Coverage, and Statistical Power.

To conduct a Monte Carlo simulation study, several methodological decisions must be made:

1. Model Specification: The structure of the model is defined based on the research question and theoretical framework.
2. Population Parameter Values: These values are derived from prior empirical studies or theoretical expectations and serve as the basis for data generation.
3. Number of Replications: Determines the stability and reliability of simulation results. Larger numbers of replications yield more precise estimates.
4. Random Seed Selection: Multiple random seeds are used to initiate data generation, ensuring robustness and reproducibility across simulation runs.

Monte Carlo simulation enables simultaneous evaluation of statistical power and parameter estimation accuracy, providing nuanced insights into sample size requirements tailored to specific model structures and data characteristics.

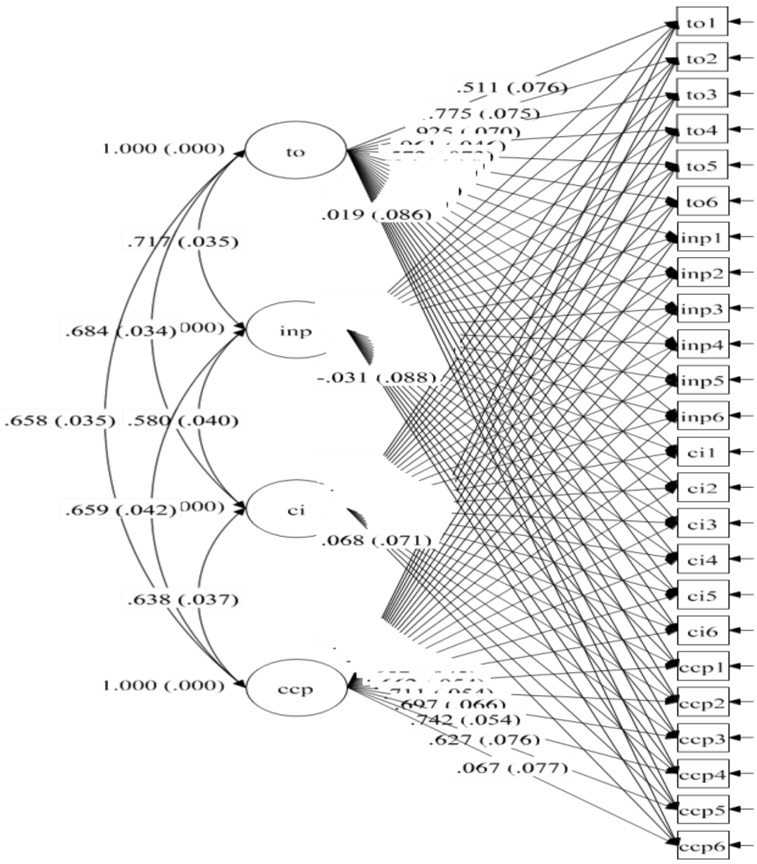
3. METHOD

3.1. Model specification and estimation

The present study employed an Exploratory Structural Equation Modeling (ESEM) framework to assess digital skills as a multidimensional construct. Model estimation was based on responses from a sample of 603 students to 24 items related to functional digital skills from the validated Youth Digital Skills Indicator (yDSI) developed by Helsper et al. (2020). Estimation was conducted using maximum likelihood, with standard errors computed via the robust sandwich estimator (MLR) to account for potential non-normality. All analyses were performed using Mplus Version 8.11 (Muthén & Muthén, 1998–2025). To determine sample size requirements and assess statistical power in this complex modeling context, Monte Carlo simulations were utilized, a widely recognized and effective approach. Mplus provides comprehensive tools to support the implementation of such simulations.

The ESEM model (Figure 1) demonstrated superior fit in modeling the covariance structure among the 24 items, outperforming alternative models including Confirmatory Factor Analysis (CFA), bifactor-CFA, and bifactor-ESEM (Frashëri & Teneqexhi, 2025).

Figure 1: ESEM standardized parameter estimates with MLR



Source: Own research

In Monte Carlo simulation studies, parameter estimates derived from well-fitting models in prior empirical research are commonly used as proxies for population values (Muthén & Muthén, 2002). Following this approach, parameter estimates from the ESEM analysis of the empirical dataset, comprising 138 free parameters and 186 degrees of freedom, were used as population values for data generation and coverage evaluation. This was implemented in Mplus using the SAVEDATA command: savedata: estimates = dsi.dat;

3.2. Simulation procedure

Monte Carlo simulations were conducted to evaluate the performance of an Exploratory Structural Equation Modeling (ESEM) framework across a range of sample sizes (N = 100 to N = 1700). The simulation was conducted using the MONTECARLO command in *Mplus*, with the POPULATION and COVERAGE options specified. The POPULATION option designated the dataset containing the population parameter values used to generate the simulated data, while the COVERAGE option identified the dataset used to compute coverage statistics.Figure 2 illustrates a portion of the *Mplus* syntax used in the simulation process for a sample size of 100.

Figure 2. Excerpt of Mplus syntax used for the Monte Carlo simulation at a sample size of 100, illustrating the use of the MONTECARLO, POPULATION, and COVERAGE commands to generate data and compute coverage statistics.

```
Sample size N = 100
Montecarlo:
names = to1 to2 to3 to4 to5 to6
inp1 inp2 inp3 inp4 inp5 inp6
ci1 ci2 ci3 ci4 ci5 ci6
ccp1 ccp2 ccp3 ccp4 ccp5 ccp6;
Nobservations = 100;
Nreps = 1000;
Seed = 1463;
Population = dsi.dat;
Coverage = dsi.dat;
ANALYSIS:
ESTIMATOR=MLR;
ROTATION=TARGET;
```

Source: Own research

3.2.1. Simulation output and evaluation criteria

The simulation output included summary statistics for each parameter:

- *Population Value*: The true value used in data generation.
- *Average Estimate*: The mean of parameter estimates across replications.
- *Standard Deviation (Std. Dev.)*: The variability of estimates across replications, approximating the population standard error when the number of replications is sufficiently large.
- *Average Standard Error (S.E. Average)*: The mean of estimated standard errors across replications.
- *Mean Squared Error (MSE)*: A composite metric capturing both bias and variance.
- *Coverage*: The proportion of 95% confidence intervals that include the true parameter value.

- *Statistical Significance (% Sig Coeff)*: The proportion of replications in which the null hypothesis (i.e., parameter equals zero) is rejected at the .05 level.

3.2.2. Bias and accuracy evaluation

Parameter bias was calculated as the relative difference between the average estimate and the true population value. Standard error bias was similarly computed as the relative difference between the average estimated standard error and the population standard error, approximated by the standard deviation of estimates across replications.

The *MSE* metric combines the variance of parameter estimates with the squared bias, offering a comprehensive measure of estimation accuracy by accounting for both random and systematic error.

The *Coverage* statistic indicates the proportion of replications in which the 95% confidence interval contained the true parameter value. Values close to the nominal level of 0.95 suggest well-calibrated estimates and standard errors.

The ―% Sig Coeff‖ reflects the proportion of replications where the null hypothesis is rejected at the .05 level (two-tailed test, z-critical value = 1.96). For non-zero parameters, this value estimates statistical power, the probability of correctly rejecting a false null hypothesis. For parameters with a true value of zero, it estimates the Type I error rate.

Special attention was given to factor correlations within the ESEM model, as they represent relationships between latent constructs, unattenuated by measurement error. Given the model‘s structure, where later factors reflect repeated measures of earlier indicators, these correlations also serve as indicators of construct stability over time.

3.2.2.1. Sample size evaluation criteria

Sample size determination was guided by four criteria (Muthén & Muthén, 2002; Flora & Curran, 2004):

1. Parameter bias ≤ 10%
2. Standard error bias for key parameters ≤ 5%
3. Coverage between 0.91 and 0.98
4. Statistical power approximating 0.80, a widely accepted threshold for adequacy

4. RESULTS

4.1. Monte Carlo simulation outcomes

Table 1 displays the chi-square test statistic results for model fit at a sample size of 350. This format is consistently applied to all other fit indices.

The "Proportions Expected" column (1) corresponds to the probability of exceeding the respective "Percentiles Expected" value (column 3), derived from the chi-square distribution with 186 degrees of freedom. For example, a value of 0.050 in column 1 indicates a 5% chance of exceeding the critical value of -10762.97. Columns 2 and 4 show the observed values from Monte Carlo replications. The observed proportion (0.054) and percentile (-

10760.30) closely match the expected values, suggesting that the chi-square distribution is well approximated.

Similar procedures were applied to other fit indices using the normal distribution to determine critical values.

Table 1: Monte Carlo-Based Evaluation of Chi-Square Model Fit Percentiles and Proportions

Proportions		Percentiles	
Expected	Observed	Expected	Observed
0.990	0.992	-11024.34	-11021.13
0.980	0.984	-11006.40	-11003.77
0.950	0.949	-10979.50	-10981.79
0.900	0.910	-10955.58	-10953.83
0.800	0.801	-10926.63	-10926.51
0.700	0.694	-10905.75	-10908.09
0.500	0.480	-10871.23	-10873.83
0.300	0.294	-10836.72	-10838.02
0.200	0.197	-10815.84	-10816.65
0.100	0.106	-10786.88	-10784.43
0.050	0.054	-10762.97	-10760.30
0.020	0.023	-10736.07	-10730.48
0.010	0.014	-10718.13	-10714.36

Source: Own research

The summary of analysis results includes the population value for each parameter, the mean and standard deviation of parameter estimates across replications, and the average estimated standard errors. Additionally, the mean square error (MSE), 95% coverage rates, and the proportion of replications rejecting the null hypothesis (i.e., parameter equals zero) at the .05 significance level are reported. Convergence rates were also monitored to ensure model stability throughout the simulations.

Table 2 displays the population parameter values specified in the MODEL and COVERAGE commands, alongside the average parameter estimates obtained across 1000 Monte Carlo replications at a sample size of 350.

The results pertain to one of the four dimensions of digital skills, specifically Technical Operations (TO). These values are used to assess parameter bias, calculated as the percentage difference between the average estimate and the population value. For example, the bias for the loading of TO1 on TO is -1.71%, computed as [(0.7018−0.714)/0.714]×100.

Table 2. Monte Carlo Simulation Estimates for Item Loadings: Bias, Precision, and Significance Metrics

		ESTIMATES		S.E.	M.S.E.	95%	% Sig.
	Population	Average	Std. Dev.	Average		Cover	Coeff
TO	BY						
TO1	0.714	0.7018	0.1128	0.1124	0.0129	0.941	1.000
TO2	1.044	1.0122	0.0900	0.0880	0.0091	0.920	1.000
TO3	1.264	1.2280	0.0850	0.0867	0.0085	0.927	1.000
TO4	1.262	1.2236	0.0859	0.0851	0.0088	0.915	1.000
TO5	0.824	0.8049	0.1091	0.1099	0.0123	0.947	1.000
TO6	1.093	1.0615	0.0921	0.0915	0.0095	0.927	1.000

Source: Own research

The "Std. Dev." column reports the standard deviation of parameter estimates across Monte Carlo replications, which approximates the population standard error when the number of replications is large. The "S.E. Average" column presents the mean of the estimated standard errors across replications. Standard error bias is calculated as the percentage difference between these two values. For example, the standard error bias for the loading of TO1 on TO is (0.1124−0.1128)/0.1128×100=−0.355%.

The column labeled M.S.E. (Mean Square Error) presents the accuracy of parameter estimates across replications. M.S.E. is calculated as the sum of the variance of the estimates and the squared bias. For instance, the M.S.E. for the loading of TO1 on TO was computed as $0.1128^2 + (0.7018-0.714)^2 = 0.0129$.

The column labeled 95% Cover indicates the proportion of replications in which the 95% confidence interval includes the true population parameter. This metric reflects the coverage rate, providing insight into how well the parameter estimates and their standard errors capture the true values. In this output, all coverage values ranged from .915 to .947, which is close to the nominal level of 0.950, suggesting that the estimates were generally well-calibrated.

The column labeled ―% Sig Coeff‖ reports the proportion of replications in which the null hypothesis, that a parameter equals zero, is rejected at the .05 significance level (two-tailed test, critical value = 1.96). This test is based on the ratio of the parameter estimate to its standard error, which approximates a standard normal distribution (z-score) in large samples. For parameters with non-zero population values, this proportion serves as an estimate of statistical power, that is, the probability of correctly rejecting the null hypothesis when it is false. In the Table 2 output, all ―% Sig Coeff‖ values were 1.000, exceeding the conventional threshold of 0.80, indicating excellent power for detecting true effects.

Across increasing sample sizes, the results (Table 3) demonstrated consistent improvements in estimation precision and reliability. Item loadings, residual variances, and factor correlations exhibited decreasing bias and standard error bias, indicating enhanced accuracy with larger samples.

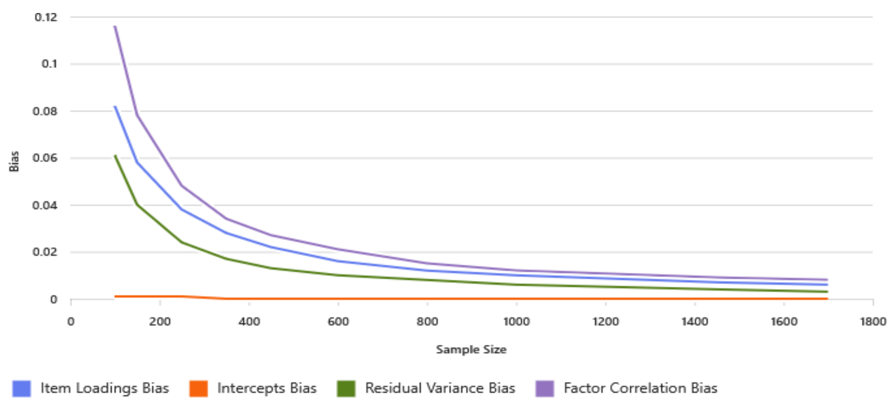
Table 3. Simulation metrics across sample sizes

	100	150	250	350	450	600	800	1000	1454	1700
Item loadings on factors	0.082	0.059	0.038	0.028	0.022	0.016	0.012	0.010	0.007	0.006
S.E. of item loadings	0.058	0.036	0.025	0.023	0.028	0.025	0.026	0.021	0.014	0.019
Intercepts	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S.E. of intercepts	0.019	0.013	0.016	0.023	0.029	0.030	0.019	0.019	0.016	0.016
Residual variances	0.061	0.040	0.024	0.017	0.013	0.010	0.008	0.006	0.004	0.003
S.E. of residual variances	0.025	0.017	0.017	0.014	0.017	0.016	0.019	0.020	0.018	0.019
Factor correlations	0.116	0.078	0.048	0.034	0.027	0.021	0.016	0.012	0.009	0.008
S.E. of factor correlations	0.184	0.121	0.063	0.038	0.042	0.022	0.023	0.022	0.031	0.032
95% coverage	0.900	0.917	0.927	0.935	0.939	0.940	0.942	0.943	0.947	0.947
% sig coefficient	0.995	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Convergence	0.999	0.997	0.996	0.996	0.996	0.997	0.998	0.997	0.999	1.000
MSE of factor correlations	0.011	0.006	0.003	0.002	0.001	0.001	0.001	0.000	0.000	0.000

Source: Own research

Parameter bias remained below the 10% threshold from N = 250 onward (Figure 3).

Figure 3. Parameter bias for item loadings, intercepts, residual variance and factor correlation

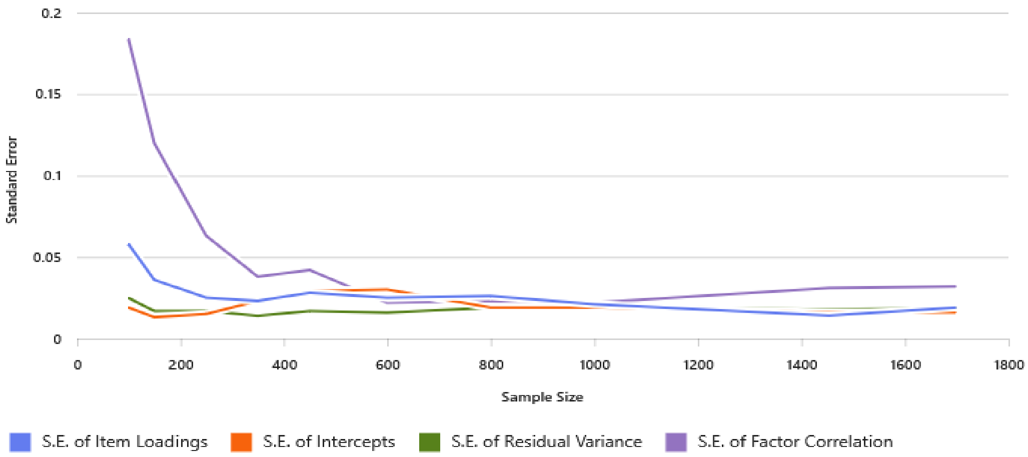


Source: Own research

Standard Error Bias for all the above parameters remained below the 5% threshold from N = 350 onward (Figure 4).

Bias in item loadings decreased from 0.082 at N = 100 to 0.006 at N = 1700. Standard errors followed a similar trend, dropping from 0.058 to 0.019. Sample sizes of N = 350 and above consistently met the bias threshold (<10%) and showed acceptable standard error levels.

Figure 4. Standard Error Bias for item loadings, intercepts, residual variances and factor correlation

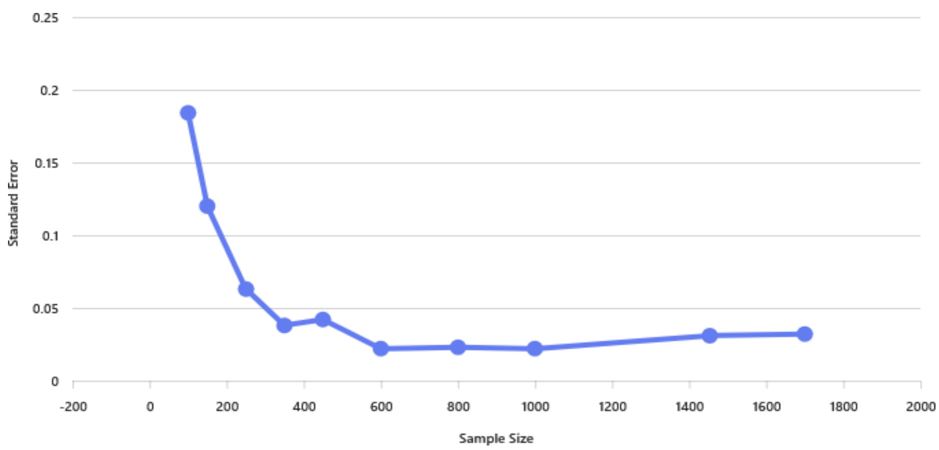


Source: Own research

Intercept bias remained negligible (≤ 0.001) across all sample sizes. This suggests intercept estimation is stable even at lower sample sizes. Residual variances bias declined from 0.061 at N = 100 to 0.003 at N = 1700. Standard errors ranged between 0.014 and 0.025, with minimal fluctuation.

Factor correlation bias showed the steepest decline, from 0.116 at N = 100 to 0.008 at N = 1700. However, the standard error of factor correlations exhibited notable variability (Figure 5).

Figure 5. Standard error bias of factor correlation through different sample sizes



Source: Own research

Coverage values ranged from 0.900 at N = 100 to 0.947 at N = 1700, with values exceeding 0.91 from N = 150 onward.

Statistical Power reached 1.000 from N = 250 onward, indicating excellent sensitivity.
Mean Squared Error (MSE), as a combination of bias and variance across parameters suggests that MSE stabilizes and plateaus beyond N = 350, indicating diminishing returns in estimation improvement.

Convergence remained above 0.996 across all sample sizes, confirming stable model estimation.

4.2. Determining the optimal sample size

To establish the minimum sample size for reliable parameter estimation within the ESEM framework, we conducted a Monte Carlo simulation assessing bias and precision across varying sample sizes. The evaluation was focused mainly on two primary metrics: standard error bias and mean squared error (MSE), for both factor correlations and item loadings.

Results showed that standard error bias for factor correlations dropped below the conventional 5% threshold at n = 350, indicating sufficient precision in estimating inter-factor relationships. Although item loadings reached acceptable bias levels at n = 150, their MSE values, reflecting the combined influence of bias and variance, only stabilized below 0.02 at n = 350. This convergence suggests that n = 350 is the point at which both factor loadings and correlations become statistically robust and reliable.

Based on these findings, n = 350 was selected as the minimum optimal sample size, balancing statistical rigor with practical constraints.

This decision ensures:

- Estimation bias remains below 10% across parameters
- Standard error bias falls under 5%, particularly for factor correlations
- MSE values are low and stable, supporting model reliability
- 95% confidence interval coverage remains within the acceptable range (0.91–0.98)
- Percentage of significant coefficients exceeds 95%, ensuring strong statistical power

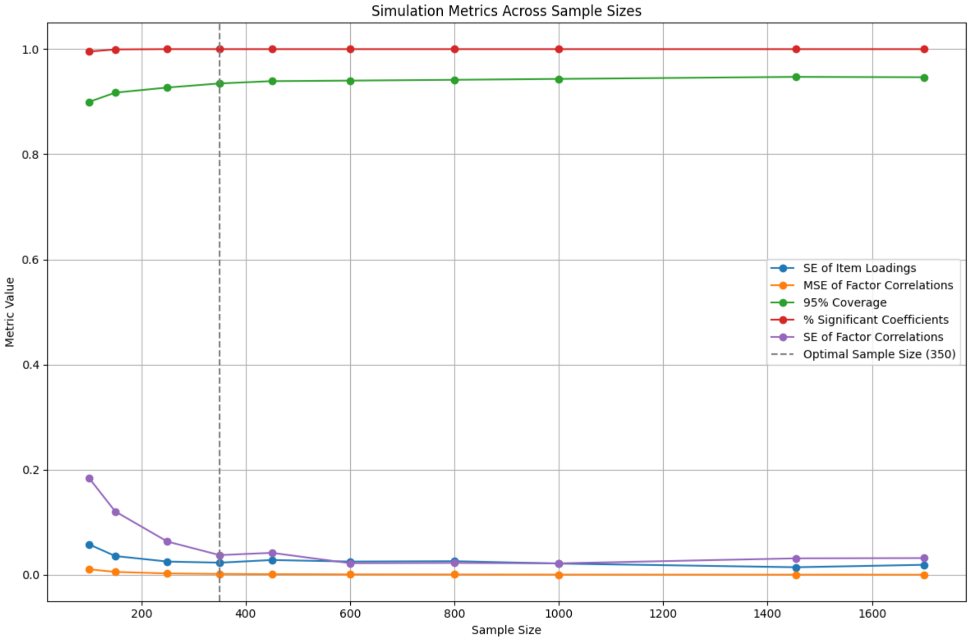
While the previous study employed 603 students, which provided highly precise and valid estimates, the simulation indicates that improvements beyond n = 350 are marginal. The additional participants offered limited statistical gain relative to the increased cost and effort, making n = 350 a more parsimonious choice, especially in resource-constrained settings.

Importantly, if factor correlation precision is a central concern (e.g., in studies emphasizing latent structure or inter-factor dynamics), n = 350 is sufficient to meet conventional standards for precision and model stability.

Figure 6 illustrates the trends in standard error bias, MSE, coverage, and percentage of significant coefficients across varying sample sizes.

The dashed vertical line marks the convergence point, where all criteria align to support n = 350 as the most efficient and statistically sound sample size for future research.

Figure 6. Simulation metrics across sample sizes



Source: Own research

DISCUSSION and CONCLUSION

This study identified n = 350 as the minimum optimal sample size for reliable parameter estimation in ESEM, based on a Monte Carlo simulation, evaluating mainly standard error bias and mean squared error (MSE) for factor correlations and item loadings. While bias for item loadings fell below 5% at n = 150, MSE values only stabilized below 0.02 at n = 350, indicating robust and precise estimates across parameters.

Beyond n = 350, improvements in bias and precision were minimal, suggesting diminishing returns. Thus, n = 350 offers a statistically sound and resource-efficient choice, ensuring:

- Reliable estimates with bias and error within accepted thresholds
- Valid confidence intervals and high statistical power
- Feasibility for studies with limited time or budget

Although the previous study used n = 603, which ensured excellent precision and generalizability, the current findings show that n = 350 would have sufficed to meet all key statistical criteria. At this level, estimation bias remained below 10%, standard error bias below 5%, and model performance metrics, such as 95% coverage and percentage of significant coefficients, were consistently strong.

Among tested sample sizes (350, 450, and 600), all met recommended criteria for bias, precision, and model validity. However, n = 350 marks the lower bound of optimality, offering a parsimonious solution for studies with limited resources; n = 450 provides slightly enhanced precision and coverage, while n = 600 yields the highest estimation accuracy and robustness.

In applied research contexts, especially those constrained by resources, n = 350 represents a parsimonious yet empirically justified sample size. It maintains model validity while optimizing cost and effort, and thus represents a recommended minimum for future digital skills assessment studies employing this ESEM framework.

The present study demonstrates that Monte Carlo simulation is not only a rigorous but also a holistic approach for determining minimum sample size requirements in complex modeling frameworks such as ESEM. This method integrates multiple evaluation criteria, bias, precision, confidence interval coverage, and statistical power, within a controlled simulation environment, offering a comprehensive assessment of model performance under varying conditions. Unlike rule-of-thumb guidelines, Monte Carlo simulations allow researchers to tailor sample size decisions to the specific characteristics of their model, measurement instrument, and research context.

Our findings confirm that this approach provides empirically grounded recommendations, ensuring both methodological validity and resource efficiency. They offer empirical guidance for future research using ESEM models, supporting informed decisions that balance statistical rigor with practical feasibility. Consequently, Monte Carlo simulation should be considered the gold standard for sample size determination in structural equation modeling, particularly when addressing multidimensional constructs and practical constraints.

Practical implications

The findings from this Monte Carlo simulation offer clear guidance for researchers employing ESEM in digital skills assessment. A sample size of 350 participants is empirically validated as the minimum required to achieve reliable estimates while maintaining model validity. This threshold ensures acceptable levels of bias, precision, and statistical power, making it particularly valuable for studies conducted in resource-constrained environments such as schools, small organizations, or developing regions.

For practitioners and policymakers, the ability to conduct robust psychometric evaluations with a manageable sample size enhances the feasibility of integrating validated digital skills measures into educational and workforce development programs. The balance between statistical rigor and cost-efficiency supports broader implementation without compromising analytical integrity.

Future research directions

Future studies should explore the generalizability of the n = 350 threshold across different measurement models, constructs, and populations. While this study focused on digital skills using ESEM, similar simulations could be applied to confirm optimal sample sizes for other latent constructs or alternative modeling approaches (e.g., bifactor-ESEM, CFA, IRT).

Additionally, research could investigate the impact of varying item characteristics (e.g., number of items, factor complexity, cross-loadings) on sample size requirements. Longitudinal designs and multi-group invariance testing may also benefit from tailored simulations to determine sample size adequacy under more complex conditions.

Finally, integrating simulation-based sample size planning into the early stages of study design can enhance methodological transparency and improve the replicability of findings across disciplines.

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NAVIGATING THE GREEN TRANSITION: CHALLENGES, OPPORTUNITIES, AND FINANCIAL IMPLICATIONS FOR ALBANIAN FIRMS

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Abstract
As the urgency of environmental challenges becomes clearer, including climate change, biodiversity loss, pollution, and unsustainable resource use, firms and institutions worldwide are accelerating efforts to support the green transition. The private sector can play a crucial role in this. This research aimed to examine the challenges that Albanian firms face in progressing towards green transition, the opportunities that arise from it and the financial implications related to this process. The aim was to assess how Albanian companies are positioned in this process compared to international trends. The research followed a qualitative approach and combined primary and secondary data sources. Various sources were used to collect the data, including reports of financial institutions, and the national statistics institution (INSTAT). The primary information was collected by interviewing a few selected representatives of firms that have already started their work towards the green transition. Based on this data, several case studies were developed. They can serve as guidance for other firms that are considering getting involved in these green initiatives. Key findings of the research include growing interest of Albanian companies in adopting green practices, a clear need for financial support due to the high upfront cost, and indications of improved financial performance. Future research can delve deeper into the effect that the green transition has on firms' financial resilience.

Keywords: *climate change, green transition, financial performance, sustainability*

1. Introduction

The increased impact of climate change, resource depletion, and biodiversity loss has raised the urgency of transforming the global economy and reorienting it towards the adoption of sustainable models. As countries have to rethink conventional models of production and consumption, the green transition is becoming key in guiding their socio-economic transformation. This transition includes various practices, such as low-carbon technologies, circular economy, biodiversity protection, and green finance investments, and requires active collaboration between public institutions and private firms.

Albania is also contributing to this process with various initiatives aimed at promoting the adoption of green practices in various directions. The landscape of Albanian work towards the green transition is complex, with the requirements related to European Union membership and the limited capacities. Regarding renewable energy, the country has made progress, with 46,6% of total energy produced that comes from renewables, mainly from hydropower (European Environment Agency, 2025). This progress is not enough, though, considering the high level of energy poverty among households. 38% of them cannot afford the high energy cost, and deal with low income (Eurostat, 2025). Also, the recycling rate of 17% is considerably lower than the European Union average of 49%, reflecting the need for intensified efforts in the work the country is doing on the green transition (OECD, 2024).

For firms, the green transition presents not only a set of challenges but also emerging opportunities. In the Albanian context, financial, managerial, and technological constraints remain particularly significant. Limited technical expertise, low managerial motivation to adopt green practices, and persistent financial constraints often prevent firms from modernizing equipment, adopting clean technologies, or transitioning toward circular business models (De Haas et al., 2023), (Vučković & Čučković, 2024). These internal limitations are frequently compounded by external barriers, including regulatory uncertainty and insufficient government support through targeted financial incentives. Together, these factors slow down the efforts of Albanian firms to accelerate their transition toward a greener and more resource-efficient economy, despite its potential benefits.

Despite the challenges, the green transition creates opportunities, such as enhanced brand value, cost savings, and open access to green finance opportunities (Kouloukoui et al., 2025). Regarding the pressure it creates on a firm's financials (Sulillari & Leka, 2025) suggest that firms that better manage their capital structure show a stronger financial resilience, which means that firms with better financial strategies are more capable of navigating the green transition. In this way, financial resilience becomes a key asset for firms on their pathway to meeting sustainability goals.

This research aims to investigate the key challenges that Albanian firms face in the process of green transition and the opportunities that might arise from it. This will help identify crucial factors affecting this process and pathways to overcome challenges and take advantage of opportunities that might arise from it. The analysis starts with an introduction, and is followed by a detailed literature review, which served as a baseline for the analysis of the problem. It is followed by a detailed description of the methodology and a few case studies, which were developed to better understand the challenges Albanian firms face about their path towards the green transition.

2. Literature review

Green transition has attracted the attention of many researchers, who have analysed different aspects of this process, including key barriers and motivation factors (Zenku & Stefanovska, 2024), (Vučković & Čučković, 2024), (Ignjatovic et al., 2024), (Mahmutaj et al. 2025).

The barriers firms face regarding the green transition include financial, managerial, technological, cultural, and regulatory barriers. Financial barriers that are holding back the green transition include the high upfront investment cost (Reynolds, 2024), (Kouloukoui et al 2025), (Mahmutaj et al., 2025), financial constraints, long payback period (Reynolds, 2024), (Kouloukoui et al 2025), (Vučković & Čučković, 2024), and credit constraint (De Haas et al., 2023). These findings suggest that access to finance and the internal financial capacity play a crucial role in the green transition. This is more evident for small firms operating in developing economies.

Another category of barriers includes managerial capacity and workforce skills. This category includes the lack of trained employees, including the lack of both technical and transferable green skills (Zenku & Stefanovska, 2024), (Reynolds, 2024), and the weak green management (De Haas et al., 2023). (Zenku & Stefanovska, 2024) further highlights the key role of workforce skills, which underscores the need for training and retraining of existing employees. They also highlight the crucial role that the government can play in this, since not all companies can afford the cost of training their employees. Their findings reveal a lack of employees willing to lead green changes, partly due to the ambiguity and uncertainty surrounding green jobs. These must align with the set of green goals. The findings suggest that they can significantly slow down the green transition process.

Besides managerial and financial constraints, structural and sectoral barriers represent another essential barrier. This is highlighted by (Vučković & Čučković, 2024), who distinguish between capital-intensive and less capital-intensive green measures. Capital-intensive measures included machinery and equipment upgrades, vehicle upgrades, on-site generation of green energy, waste minimisation, and recycling and waste management. Less capital-intensive measures included heating and cooling, energy management, measures controlling air pollution, water management, lighting improvements, and measures controlling other pollution. Product innovation, regulatory pressure, and competition from the informal sector play a crucial role in the adoption of green measures.

Their findings showed that firms in the service sector were less likely to implement capital-intensive green measures (Vučković & Čučković, 2024). Also, firms using foreign technology were more likely to adopt both types of measures, due to their access to superior and more efficient technologies. Also, older firms tend to adopt less capital-intensive measures, while membership in business associations has a positive effect on firms adopting both types of measures. Companies that were export-oriented were more likely to implement green measures, which can be a reflection of their need to adapt to European Union emission standards by reducing carbon emissions and the related carbon tariffs that could impact their competitiveness.

Regulatory and institutional barriers include regulatory inconsistencies and high compliance costs, incoherent climate policies, the lack of regulatory incentives and institutional support, and the weak cross-sector collaboration, which can prevent access to EU funding (Reynolds, 2024), (Ignjatovic et al., 2024), (Kouloukoui et al., 2025). Other barriers include Cultural barriers, such as resistance to change, difficulties in integrating climate objectives in the decision-making process, data and biodiversity-related barriers (Kouloukoui et al., 2025), (Reynolds, 2024). In the context of the Western Balkans (Ignjatovic et al. 2024), the reform of the power and energy-intensive economy is highlighted as a key challenge for the green transition. This would lead to increased use of renewable energy sources. They also highlight the key role that the circular economy can play in this process. At the same time, it represents a development opportunity for all the countries in the region..

In the context of the Western Balkans, (Mahmutaj et al. 2025) identified lack of skills and experience, lack of government subsidies, and lack of consumer demand as key barriers to transitioning to a circular economy, while the lack of a legal and regulatory framework did not have a significant effect. This suggests that market and internal factors can play a more significant role.

Despite the many barriers firms face during the green transition, this process also creates various opportunities for firms, such as sustainable investment, enhanced organisational resilience, and technological development (Kouloukoui et al. 2025). Investing in green technologies, such as in energy efficiency or waste management, can lead to reduced costs resulting from energy savings and improved resource efficiency. This reflects the close connection between the environmental and financial performance. Even though firms often face high upfront investment costs and long payback periods, these investments may bring benefits in the long run that can justify the investment. These benefits can include reduced costs, enhanced competitiveness, enhanced brand name, and improved financial performance.

As a result, the green transition shall be seen as a key strategic financial decision that can affect the long run firm's performance. Start-ups can play a crucial role in this area by creating innovative solutions..
In the context of Albania, there are not many studies conducted in this area, but the results of existing research are promising. (Gjoni et al., 2024), For example, their research on the evolution of green finance in Albania discovered a positive trend regarding activities contributing to sustainable development, but it is still in its first steps. They also highlight the crucial role that coordinated efforts among the different stakeholders can play in this. process.

3. Methodology of the study

This research aimed to investigate key challenges that Albanian firms face on their path towards green transition, the opportunities that might arise from it, and its financial implications. The aim was to investigate key factors making this process challenging and find ways to overcome it. Various objectives were set to achieve this aim, including:

- To identify key challenges that Albanian firms face during the green transition process, as well as opportunities emerging from it.
- To examine the consequences these barriers may have on firms and their progress regarding the green transition.
- To formulate recommendations for policymakers and firms on steps that can facilitate firms' transition towards green.

The research is exploratory and qualitative, and integrates primary and secondary data. Primary data was collected through semi-structured interviews with a few selected representatives of Albanian firms that are already adopting green practices. The selection of firms involved in the research was purposive, and the criteria for selecting them were their commitment to sustainable investments, such as investing in renewable energy, energy efficiency, and recycling. The interview included various questions, which aimed to identify key barriers firms face during this process, the opportunities that may arise from it and its perceived financial implications. Secondary data was collected from reports from financial institutions and credible websites, such as INSTAT. They helped to complement the case studies.

The primary data were used to develop two case studies, which helped understand the complex process of the green transition, particularly when the quantitative data is limited. The findings obtained from the case studies were compared to the existing literature findings. It is worth highlighting that the exploratory nature of the research and the limited number of case studies make it difficult for the findings to be representative of the population of all Albanian businesses. However, the research adds value, particularly in this emerging and underexplored area.

5. Discussion

The previous sections provided a detailed description of the methodological approach and literature review related to the research topic. This section presents the results obtained from two case studies developed to investigate the key challenges that Albanian companies face during green transition, the key motivation factors driving this process, and its financial implications. The analysis connects the results of the case studies with the findings of the literature review.

TONA ALB

TONA Alb is a good example of Albanian firms for whom sustainability has become a core part of their operations. The company was established in 2014 in Korca, and is one of the largest meat collection, and processing firms in the Albania. As part of its commitment towards sustainability, a major milestone is the installation of the photovoltaic for electricity production to cover the needs of the company. This investment aimed the optimization of the energy cost, which for a manufacturing company like this, composes a significant part of the production costs. This required a total investment of 763 369 Euros, from which 50% was covered from a grant received from the Agency for Agricultural and Rural Development (AZHBR), and 50% of it was covered by a bank loan, which was a loan dedicated to solar panel installation. This investment made possible the coverage of around 60% of the company's needs for energy, or approximately 20 000 Euros of energy cost per year. The investment resulted very productive and valuable, enabling an energy production worthy of 110 000 Euros since the first six months after the panels were installed. Representatives of the company highlight the significance of taking an initiative like this, not only for saving costs, but also to reduce the dependency on conventional energy sources, that could make the company vulnerable from a potential energetic crisis.

From a financial perspective this example illustrates how investing in green technologies can transform operations, by reducing costs and exposure to energy price fluctuations. This led to stable cash flows. Despite the high initial investment cost, combining grants with financing from financial institutions has reduced the financing cost.

TONA Alb is an example of how companies can benefit from public financial incentives, and an easy access in finance from financial institutions, which can accelerate the transition towards clean energy. This combined with the company's efforts to modernize it technology and resource efficiency, can lead to a stronger financial resilience in long-term. This example shows how the transition towards a clean energy can contribute not only to cost reduction but also a lower carbon footprint, which aligns TONA ALB operations with the sustainability goals, and particularly with the climate ones. This can also be a reflection of the growing expectations from customers, partners, and regulatory bodies. On the other side the company's environmental commitment can boost its brand, by positioning the company as an early adopter of renewable solutions. To sum up, increased efforts to move towards a greener economy can lead to an enhanced operational stability, mitigation to energy price fluctuations, and increased competitiveness.

The facts highlighted by TONA Alb align with findings from the literature review, with (Reynolds, 2024) and (Kouloukou et al., 2025) emphasising the role of high investment as a key barrier to the green transition. However, combining financing from financial institutions with public grants illustrate the crucial role that institutions can play in supporting companies to overcome these challenges. This aligns with the findings of (Vučković & Čučković, 2024), which highlight the significant role of access to finance in this process. Overall, this case study serves as an example that illustrates how aligning financial instruments with managerial commitment can boost both the environmental and financial performance..

Company X

The second company included as a case study is also based in Korçë and was founded in 1995. It is a medium-sized enterprise operating in the food production sector, with additional activities in recycling. The company considers sustainability to be a core element of its business model and has been continuously integrating green practices since 2000. This reflects a long-term strategic commitment rather than the implementation of sporadic initiatives. The main motivation for adopting green practices has been cost reduction. The measures implemented include improvements in energy efficiency, the use of renewable energy sources, and recycling activities. These initiatives are led directly by the company's management, highlighting the crucial role of leadership in driving the green transition. Monitoring is primarily conducted through annual reports, rather than the use of specific key performance indicators, indicating a potential for further improvement in the formal evaluation of sustainability performance.

From a financial perspective, the adoption of green practices has contributed to improved financial performance, primarily through reductions in energy and material costs. Unlike the previous case study, this company has relied exclusively on internal funds to finance its green investments, rather than on external financing sources. This reflects both the firm's financial capacity and its medium-sized structure. This approach can reduce the financing risk, but can also limit the scale of green investments. This can also reflect the conservative approach the company follows, which prioritizes stability.

Despite these positive outcomes, the company has faced challenges during the green transition process. The most significant barriers relate to regulatory constraints and legal bureaucracy, particularly unclear or overlapping regulations. These obstacles complicate the implementation of green practices and create uncertainty for long-term planning. As a result, the company emphasizes the need for improvements in the legal and regulatory framework to better support progress in the green transition. Sustainability is perceived as a source of competitive advantage, and the green transition has also contributed to innovation in both products and processes. Overall, this case highlights the key role of leadership in advancing the green transition, even in the absence of dedicated green financing instruments. It also demonstrates that significant financial and operational benefits can be achieved despite the regulatory challenges. A clear and stable legal framework would be essential for unlocking the full potential of green transition investments.

The results from this company are also consistent with the findings of the existing literature, with (Kouloukoi, 2025), and (Vučković & Čučković, 2024), who highlight cost reduction as a key driver of adopting green practices. On the other side, (Reynolds, 2024) and (Kouloukoi, 2025) highlight the significant role that managerial commitment can play in accelerating the green transition. The regulatory and bureaucratic challenges reported by this firm differ from the findings of (Mahmutaj et al., 2025), who found that this factor did not have a significant effect. This may reflect the differences related to the context in which firms operate. Overall, this case study highlights the crucial role managerial commitment and regulatory framework can play in the effectiveness of the green transition, despite its potential to improve a company's financial performance.

Considering the experience of both companies, the results demonstrated that the green transition in Albania is mostly driven by economic factors, particularly cost reduction. A difference is seen, though, between the two companies. While TONA Alb relied on external financing to implement the energy investment, company X relied on internal funds to support the adoption of green practices, which was strongly shaped by the management‘s commitment to sustainability. Even though both companies followed different approaches, they both reported improved operational efficiency and enhanced competitiveness, which suggests that adopting these practices can also contribute to increased financial resilience.

5.Conclusion

This research aimed to examine the challenges and opportunities that Albanian firms face in the green transition, as well as the financial implications associated with this process. The findings showed that the significant initial investment cost for adopting green practices can create financial pressure for firms; however, it also holds the potential to generate financial benefits. Key benefits identified included cost savings, improved resource efficiency, and lower exposure to energy price volatility.

The finding also showed that financing is a key determinant in the success of green practices adopted. Firms that combine public grants with financing from financial institutions can move more quickly than firms that rely on internal funds. In both cases, firms had experienced improved operational efficiency, enhanced competitiveness, and improved financial performance. These findings show that green transition is not only a regulatory obligation, but also a way to integrate financial decisions with efforts to protect the environment.

However, financial constraints represent a key barrier, particularly for small and medium-sized enterprises that often cannot access green finance instruments. The government and institutions can play a key role in supporting firms during this process by strengthening green finance mechanisms and improving the regulatory policy, which would increase a firm's capacity to invest in green practices. Despite its contribution to the field, the research faces some limitations, mostly related to its exploratory nature and the limited number of case studies. These limitations could be addressed in future research by focusing on a quantitative analysis of the effect that adopting green practices can have on a firm's profitability and conducting a deeper analysis of their effect on a firm's financial resilience.

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THE IMPACT OF SMART TOURISM TECHNOLOGIES ON TOURISTS EXPERIENCE SATISFACTION

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Abstract
Digital transformation has significantly reshaped the global tourism industry, positioning smart technologies as key drivers in enhancing service quality and tourist satisfaction. This study examines the impact of Smart Tourism Technologies (STT) on tourist experience and satisfaction, focusing on core dimensions such as travel efficiency, service personalization, safety, communication, and destination interaction. The research adopts a combined theoretical and empirical approach. Data were collected through a structured questionnaire distributed to clients of —Dion Travel & Tours,‖ where 150 tourists participated and 123 provided valid responses.
The analysis aims to identify the key factors influencing tourist satisfaction and assess tourist perceptions regarding the use of smart technologies during their travel experience. Preliminary findings indicate that ease of use, information quality, and the level of personalization emerges as significant determinants of tourist satisfaction.
The study contributes to both academic literature and managerial practice by offering insights and recommendations for enhancing tourist experiences within smart destinations and promoting the effective adoption of innovative technologies in the tourism sector.

Keywords: *smart tourism, Smart Tourism Technologies (STT), digital innovation, tourist satisfaction, tourist experience, digital transformation*

11. Introduction

In the ultramodern period, digital metamorphosis is playing an increasingly pivotal part in the tourism industry. Smart tourism technologies similar to real-time information, mobile operations, virtual reality, substantiated service systems, among others, are being extensively used to ameliorate the rubberneck experience. These technologies do not only serve to optimize or grease processes, but have a direct impact on creating gestures that are emotionally charming, instructional, and make passages more comfortable and pleasurable for excursionists.A number of studies show that the relinquishment of smart tourism technologies contributes to increased sightseer satisfaction. For illustration, a study in Macau found that factors similar to availability, information, security, interactivity, and personalization significantly affect excursionists' perception of the smart technology experience and their trip satisfaction.

From the perspective of excursionists, smart technologies are an essential element of the experience and play an irreplaceable part throughout the trip process. Traditionally, people had to stand in long lines to buy machine, train, or airplane tickets. moment, thanks to technology, it's possible to make an online reservation in a matter of seconds, which has had a positive impact on everyday life. The ultimate goal of smart tourism is to make trips easier and more enjoyable for tourists (Pai et al., 2020). utmost trippers use smart technologies to organize and enrich their passages, through trip websites and apps, social networks, virtual reality, and other tools that provide information about lodestones, reviews of original cafes, and the ability to make payments via smartphone during passages (Pai et al., 2020).

This study aims to answer five exploration questions

1. Will smart technologies increase the overall satisfaction level of tourists ?

2. Which technologies have the greatest impact on perfecting the sightseeing experience?

3. How is the use of intelligent technologies perceived by excursionists of different

   generations?

4. Does the personalization of services, enabled by technology, increase satisfaction?

   What are the challenges that excursionists face when using these technologies?

The methodology that will be used will include collecting data through questionnaires among excursionists (guests) of the Dion Travel & tenures agency, where 150 guests have been named who have reserved sightseer packages with the agency in question, of which only 123 individuals have completed the questionnaire, who have expressed their opinions regarding the satisfaction and problems they've encountered during the operation of sightseer technologies in the countries they've visited. In Albania, tourism has experienced significant growth over the last few decades, becoming one of the main pillars of profitable development and job creation still, the use of smart tourism technologies is still in an experimental stage, with great potential but also concrete challenges. One of the abecedarian problems in the tourism assiduity in Albania is the lack of operations that increase sightseer satisfaction, which will help guests in planning their diary in Albania similar as sightseer attendants, sightseer lodestones and the possibility of reserving tickets online also operations that offer public transport or lines between metropolises and sections, public service calendars (not just hacks), and completely digital payment for public transport are still unattainable. This finding shows that to ameliorate the satisfaction of the sightseer experience in Albania through smart tourism technologies, a coordinated problem is demanded development of operations that cover dependable and complete information, integration of online reservations and digital payments, enhancement of internet infrastructure, as well as education/literacy of digital knowledge of original providers.

1.1 Purpose of the study

The study analyzes the impact of smart tourism technologies on tourists‘ experience satisfaction, as a key factor for the sustainable development of destinations.

It examines the dimensions of satisfaction influenced by technology, including:

- The efficiency of tourism technologies.
- Personalization of the experience according to individual preferences.
- Security and reliability of information.

- The interaction offered to visitors through technological tools.

Additionally, it explores tourists' perceptions regarding:

- The use of digital applications and services.
- The level of acceptance and ease of use.
- The effect on the overall quality of the tourist experience.

1.2 Objectives

1. To analyze the impact of smart tourism technologies on tourists' satisfaction.
2. To highlight the challenges and difficulties tourists face while using technologies
3. To analyze tourists' perceptions according to age groups and gender to identify intergroup differences.
4. To provide recommendations for improving services and increasing the adoption of technologies.
5. To identify the most commonly used technologies.

The findings of this study are expected to provide valuable insights for destination managers and policymakers seeking to improve tourism experiences through the effective implementation of smart tourism technologies.

12. LITERATURE REVIEW

2.1 The Concept of Smart Tourism

Smart tourism refers to the integration of advanced information and communication technologies (ICTs) into tourism destinations to enhance excursionists' gests , ameliorate destination operation, and support sustainable development. According to Gretzel et al.(2015), smart tourism is enabled by technologies similar as the Internet of effects(IoT), big data, mobile operations, pall computing, and artificial intelligence, which grease real- time data exchange and intelligent decision- making among stakeholders. The conception emphasizes the creation of connected tourism ecosystems where data- driven perceptivity are used to deliver substantiated, effective, and secure services acclimatized to individual excursionists' preferences and actions (Buhalis & Amaranggana,2014). Through smart technologies, destinations can enhance caller commerce, optimize resource operation, and foster invention in tourism products and services, eventually adding sightseer satisfaction and destination competitiveness.Also, smart tourism plays a critical part in promoting sustainability by supporting environmentally responsible practices, conserving artistic heritage, and balancing profitable growth with social and ecological considerations (Gretzel, Sigala, Xiang, & Koo, 2015). As similar, smart tourism represents a strategic approach to destination development that aligns technological invention with the principles of sustainable and experience- centered tourism.

2.2 Strategies for implementing Smart Tourism

Building an effective smart tourism structure requires a comprehensive, integrated and long-term strategic approach. Strong collaboration between key stakeholders public authorities, private sector promoters, technology providers and indigenous communities is essential to ensure alignment between strategic objectives and the actual requirements of the destination (Buhalis & Amaranggana, 2014). Such collaboration facilitates the development of coherent programmes and increases the effectiveness of the smart tourism enterprise. The first phase of implementation involves conducting individual exploration and situational analyses to identify excursionist perspectives, behavioral patterns and technological readiness situations, as well as the challenges and strengths of indigenous communities (Gretzel et al., 2015). Based on these findings, a strategic action plan should be developed, followed by the allocation of fiscal coffers and investments. Equally important is the careful selection of applicable technologies, such as Internet of Things (IoT) sensors, big data analytics platforms, mobile operations, and wearables that support destination facilities and enhance service delivery (Li, Hu, Huang, & Duan, 2017).At all stages of implementation, sustainability principles should be integrated into decision-making processes.

Smart tourism technologies should contribute to reducing environmental impacts, optimizing resource use, and promoting environmentally responsible practices, while supporting the preservation of artistic heritage (Gretzel et al., 2015). This approach ensures that technological innovation aligns with the broader aspirations of sustainable destination development. As smart tourism systems develop, destinations can reinvest the revenues generated in advanced transport systems, digital infrastructure and experience-enhancing enterprises. Such reinvestments not only improve the quality and efficiency of tourism services, but also stimulate job creation, foster innovation and encourage the active involvement of indigenous communities in the benefits associated with tourism (Buhalis & Amaranggana, 2014). In the contemporary literature on smart tourism, the part of smart technologies is analyzed through several crucial attributes that impact excursionists' comprehensions, stations, and behavioral intentions. former studies have linked four abecedarian attributes instructional, availability, interactivity, and personalization that form the base of the digital tourism experience(No & Kim, 2015). More recent studies have expanded this frame to include an fresh trait, security, which has come a central element in an decreasingly technology- intermediated terrain(Pai et al., 2020; Zhang et al., 2022; Jeong & Shin, 2020). Understanding and optimizing these attributes is essential for adding sightseer satisfaction and developing competitive smart destinations.

The benefits of Smart Tourism are two-fold. For tourists, it offers increased convenience, more effective planning and navigation, accurate and immediate information, and richer gests thanks to AR/ VR and substantiated services. Intelligent security measures give excursionists peace of mind and reduce the query that can be associated with traveling to new destinations. For host destinations, Smart Tourism enables better operation of sightseer overflows, precluding overcrowding, perfecting public systems, and generating sustainable income for the original economy. Applying sustainable practices helps conserve the terrain and artistic heritage, guaranteeing that unborn generations profit from the destination's means.

Figure 1: ***Implementation strategies of smart tourism***

In conclusion, a successful smart tourism operation must be dynamic, flexible and collaborative, supported by mechanisms for monitoring, evaluation and continuous improvement. It must find a balance between technological innovation and the protection of artistic and environmental values, ensuring that the resulting tourism development offers more sustainable, supported and memorable trips for visitors.

Perceived Value of the Experience with Smart Tourism Technologies

The perception of tourism is also considered an important exploration content in social psychology. As beforehand as 1988, Zeithaml defined perceived value, which is concluded from the proposition of consumer geste and remains applicable moment, as ― a consumer‘s overall assessment of the utility of a product or service predicated on the perception of what's entered and what's given‖(Zeithaml, 1988). In simple terms, it represents the trade- off between perceived benefits and perceived costs.

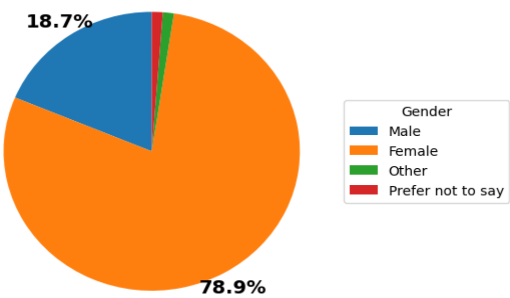
Smart tourism technologies and related services are factors that contribute to enhancing the sightseer experience(Zhang et al., 2022). Excursionists‘ perception of these technologies is an integral part of the tourism experience and a prerequisite for impacting sightseer satisfaction and creating a sustainable destination image. thus, it's necessary to examine excursionists' comprehensions of the impact of smart tourism technologies as a complete set of digital technologies that loosen the sightseer experience and not as isolated rudiments.

Albania's evolution in smart tourism

Albania's tourism industry is expanding quickly, but there hasn't been much use of smart technologies yet. The majority of travel agencies use global booking and marketing platforms like Booking.com, Airbnb, and Tripadvisor. A national strategy for the development of smart destinations is still insufficient, while multiple locations (such as Tirana, Berat, and Gjirokastër with modest tourist applications) have started providing digital assistance. Through public and industry interventions, the Smart Specialization Strategy 2024–2030 aims to foster innovation and sustainable economic growth. This approach includes a comprehensive initiative to improve tourism using digital means. Albania's natural beauty and rich cultural legacy may present a special chance to blend conventional travel with cutting-edge technology. By creating interactive web maps or specialized mobile applications, this will increase accessibility and, more importantly, promote Albania's tourism offerings. Easy navigation on Albania's tourism destinations is anticipated with these digital tools, which might be enhanced with multimedia content like audio guides, video clips, and interactive storytelling for people who are interested. By utilizing digital innovation to showcase its natural beauty and cultural wealth, Albania hopes to offer an inclusive and rich experience for tourists in addition to promoting tourism. The objective is to establish Albania as a must-see location on the world's digital map, drawing in more tourists and encouraging a closer bond between them and the rich Albanian culture. It is anticipated that this strategic fusion of technology and tourism would enhance cultural preservation, spur economic growth, and change Albania's reputation as a leader in digital tourism.

Results Analysis

The analysis of the results is based on empirical data collected through structured questionnaires, completed by 123 domestic tourists selected through purposive sampling from the clients of the Dion Travel & Tours agency. The sample represents individuals with different demographic characteristics and different levels of travel experience, who have used smart tourism technologies such as mobile applications, online platforms and reservation systems. These data serve as an analytical basis to assess the impact of the use of smart technologies on the satisfaction and quality of the tourist experience.



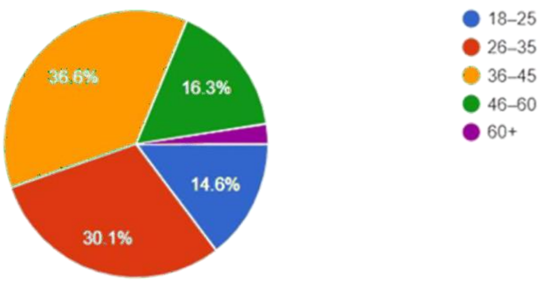
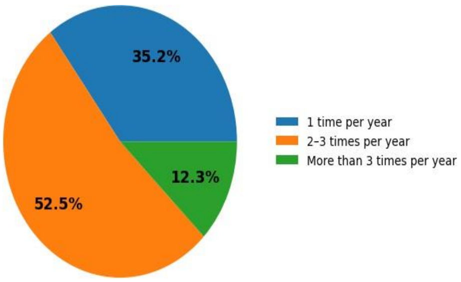


Chart 1: ***Respondents gender distribution*** *Chart 2:* ***Respondents age distribution***

The analysis *(chart1)* shows that 78.9% of the participants are female, while 18.7% are male (with the remainder unspecified or non-response). These data clearly show that women represent the vast majority of the study sample, suggesting a strong gender bias in the structure of tourists using agency services. From the results collected from the questionnaire, *(chart 2)* the following distribution of age groups is observed: 36–45 years old (36.6%), 26–

35 years old (30.1%), 46–60 years old (16.3%), 18–25 years old (14.6%) and over 60 years old (about 2–3%). These data clearly show that the dominant segment is between 26 and 45 years old, which constitutes about 67% of the entire sample.



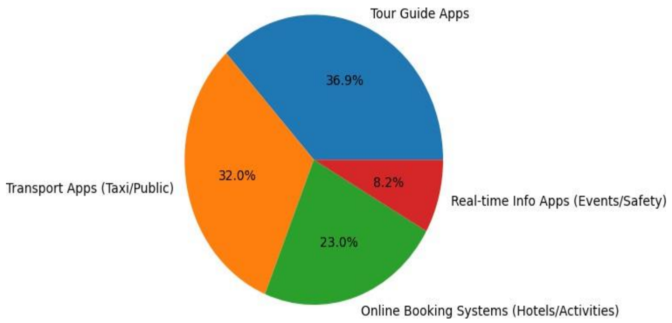


Chart 3: ***Travel frequency technologies*** Chart 4***: Respondents' use of Smart tourism***

The results (*chart 3)* shows that the majority of respondents travel with average frequency, specifically 52.5% travel 2–3 times a year, while 35.2% travel only once a year and a smaller proportion (12.3%) travel more frequently. In parallel, (*chart 4)* the use of smart tourism technologies is dominated by tourist guide applications (36.9%) and transport applications (32%), while online booking systems are used to a significant extent (23%) and real-time information applications to a lesser extent (8.2%). Overall, these findings suggest that tourists with average travel frequency rely mainly on practical and functional technologies that facilitate orientation, movement and travel organization. This indicates that smart tourism technologies are being used mainly as operational support tools for the tourist experience, reflecting a stable, but not yet maximum, level of digital integration in traveler behavior.

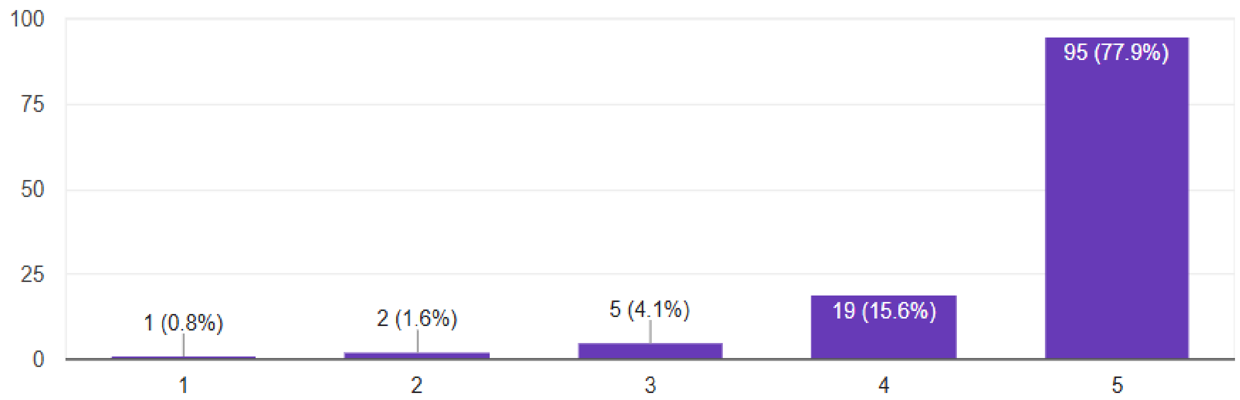


Chart 5. ***Ease and efficiency of travel***

From the responses collected, *(graph 5)* shows that 77.9% of tourists rated with the maximum score (5) that the use of technologies such as transport applications and online booking systems has helped them make their trip easier and more efficient. 15.6% gave a rating of 4, while only 4.1% chose a rating of 3, 1.6% a rating of 2 and 0.8% a rating of 1. This result shows a very high level of approval, confirming that smart tourism technologies have significantly influenced the facilitation of the tourist experience. Their use increases the efficiency of planning, saves time and reduces logistical difficulties, making the trip more organized and enjoyable.

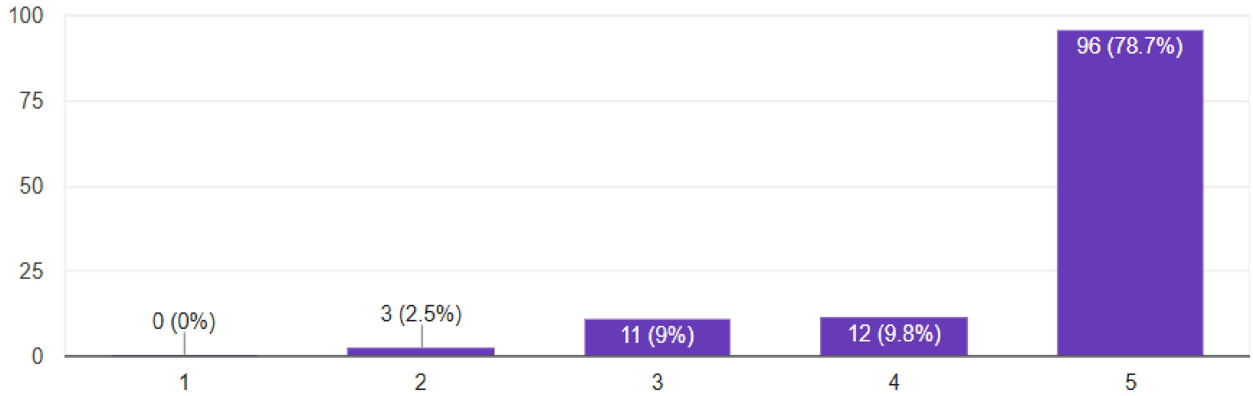


Chart 6. ***Respondents intention to revisit destinations***

Of the responses collected (*chart 6)*, 78.7% of tourists gave the maximum rating (5), stating that their experience with smart technologies has encouraged them to visit the same tourist destination again. 9.8% gave a rating of 4, 9% a rating of 3, while only 2.5% chose a rating of 2 and none chose a rating of 1.This result shows a very strong relationship between the use of smart tourism technologies (STT) and the intention to return or the desire to visit a new tourist destination, confirming that these technologies not only improve the current experience, but also increase loyalty to the destination and the desire for new destinations.

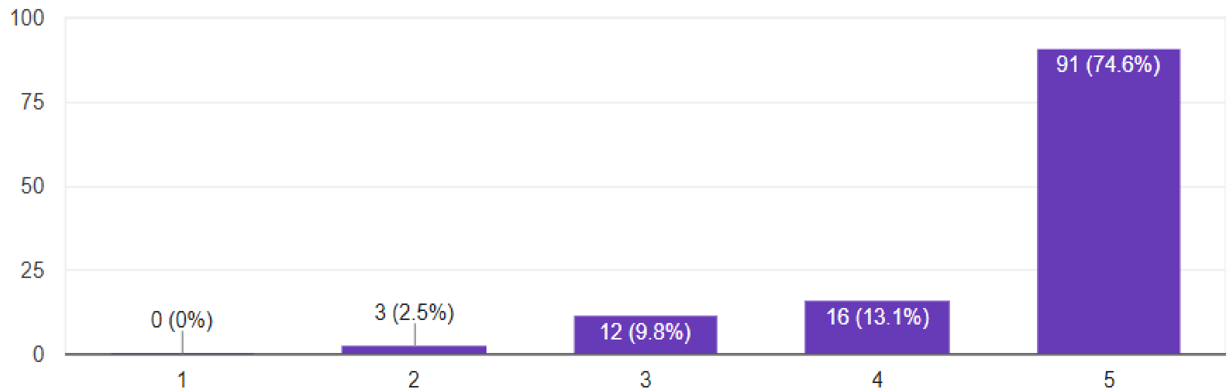


Chart 7. ***The impact of (STT) on overall satisfaction***

Of the responses received, *(chart7)* 74.6% of tourists gave the maximum rating (5) stating that the use of smart tourism technologies has positively influenced their overall satisfaction during the trip. 13.1% gave a rating of 4, 9.8% a rating of 3, while only 2.5% chose a rating of 2 and none chose a rating of 1. This result shows that over 87% of the sample (ratings 4 and 5) feel satisfied or very satisfied with the impact of STTs, confirming that the integration of digital technologies has played a decisive role in improving the travel experience. The use of applications for transport, online bookings, digital guides and real-time information has increased the comfort, efficiency and quality of the destination experience.

Conclusions

- ➢ STT are transforming the way tourists plan, travel, and experience destinations.
- ➢ The majority of tourists perceive a significant improvement in their experience due to STT, including faster access to information, easier orientation, and personalized services.
- ➢ Smart technologies enhance time management efficiency and improve the overall quality of the tourist experience.
- ➢ Survey results indicate that the use of STT promotes return visits, encourages exploration of new destinations, and fosters tourist loyalty.
- ➢ Key challenges relate to technical issues, lack of offline functionality, inaccurate information, language barriers, and data security concerns.
- ➢ Ultimately, smart tourism does not replace the traditional experience but enriches it, creating more personalized and enjoyable travel experiences.

Recommendations

- ✓ The development of a user-friendly digital platform should be a priority, integrating functions such as reservations, ticketing and tourist guides into a single system, to simplify planning and managing guides.
- ✓ The creation of a national smart tourism platform is essential to maintain real-time information on travel, transport and cultural activities, including for international tourists.
- ✓ The expansion of public Wi-Fi coverage in key tourist areas, such as historic centres, museums, beautiful parks and beaches, will see immediate access to digital information and services for visitors.
- ✓ Tourist applications should be equipped with offline functionality, so that tourists do not face technological barriers during their trip.
- ✓ Investment will continue in digital is for all those who are more sustainable, inclusive and competition-oriented tourism, increasing the competitiveness of the destination in the international market.

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REMITTANCES AND THEIR ROLE IN POVERTY REDUCTION

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Abstract
Remittances - money sent by migrants to their home country - have a significant impact on the economy of the receiving nation and on the lives of the individuals who benefit from them. In countries with high levels of poverty, remittances often serve as a major source of household income and an important driver of economic development.
The Korça region was chosen as a case study, and a questionnaire was conducted to assess the current situation of respondents, their household economic conditions, and the impact of remittances on their livelihoods. The results revealed certain shortcomings related to the methods of sending and using remittances. The ease and security of remittance transfers remain among the most important challenges facing the remittance market today.
Based on the analysis of the survey responses, it was found that remittances have a positive impact on household economies by reducing poverty. However, most remittances are used for consumption, with only a small portion directed toward investment. Therefore, increasing the share of remittances used for productive investment could enhance their positive impact on the long-term development of the country's economy.

Keywords: *remittances, migration, household economy, poverty, economic development*

13. Introduction

International migration and remittance flows have become central features of the global economic system, particularly for developing countries. Remittances are increasingly recognized not merely as private transfers between migrants and their families, but as macro economically significant financial flows that influence poverty dynamics, consumption patterns, and long-term development outcomes.
According to the World Bank, remittance inflows to developing economies have grown steadily over the past decades and often exceed foreign direct investment and official development assistance. Unlike more volatile capital flows, remittances tend to display countercyclical characteristics, increasing during periods of economic downturn in migrants' home countries. This stabilizing function makes them particularly relevant in contexts characterized by structural vulnerability and income instability.
From a theoretical perspective, the **New Economics of Labour Migration (NELM)** framework provides a micro-foundational explanation for migration and remittance behaviour. NELM argues that migration decisions are made at the household level as a strategy to diversify income sources, overcome local market failures (such as credit and insurance constraints), and reduce exposure to economic risk. Within this framework, remittances serve as an informal risk-sharing mechanism and a tool for inter temporal income smoothing. Consequently, their impact extends beyond immediate consumption support to influence investment decisions, human capital accumulation, and social mobility.

In the context of Albania, migration has been one of the most significant socio-economic phenomena since the early 1990s. Large-scale emigration has generated substantial remittance inflows, which represent one of the most stable sources of foreign currency for the country. According to the Bank of Albania (2019), remittances constitute an important income source for a significant share of Albanian households and contribute positively to education expenditure, healthcare access, housing improvements, and small-scale investments. Moreover, remittances have been associated with increased financial inclusion, which may foster broader economic participation and long-term growth.

However, despite the acknowledged macroeconomic relevance of remittances, empirical evidence on their microeconomic effects in Albania remains limited and fragmented. Much of the existing discussion focuses on aggregate inflow data, while relatively fewer studies provide updated household-level analysis of how remittances influence poverty status, income distribution, and welfare outcomes. This creates a research gap in understanding the extent to which remittances function as a sustainable development mechanism rather than merely a short-term consumption support tool.

This study seeks to address this gap by empirically examining the impact of remittances on household economic well-being and poverty reduction in Albania using primary survey data. By integrating theoretical insights from the New Economics of Labour Migration with micro-level empirical evidence, the study aims to contribute to the on-going debate on the developmental role of remittances in transition and developing economies.

2. Problem Statement

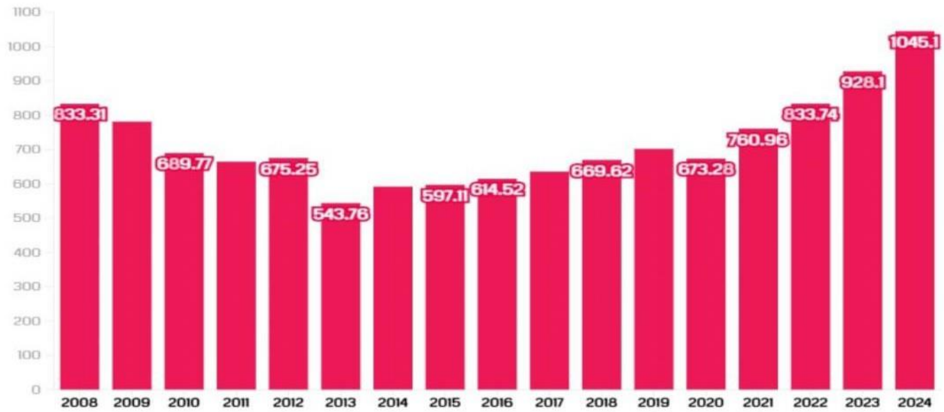
For decades, poverty has remained one of the main challenges facing the Albanian economy. Since the fall of the communist regime, the country has experienced political and economic transition, high unemployment, and limited income opportunities, leading to a decline in the resident population. According to INSTAT, over 2.2 million Albanians, or approximately 48% of the population, live abroad (Ditari, 2024), reflecting high migration rates driven by poverty and the need to secure income for families left behind.

Remittances have been a key contributor to both household and national economies, supporting the survival of many families and reducing poverty levels. However, Albania faces several challenges regarding remittances, including economic dependence, high transfer costs, limited financial literacy, and intra-family disputes over the use of these funds. To maximize the impact of remittances on poverty reduction and economic development, policies and strategies are needed that encourage more effective and sustainable investments, increase employment opportunities, and improve welfare and living standards in the country.

2.1 Current Situation of Remittances in Albania

In the first quarter of 2024, Albanian migrants sent 28 million euros more to Albania compared to the same period in the previous year. According to the Bank of Albania, remittances reached 241 million euros from January to March. Albania ranks among the countries receiving the highest share of remittances from its diaspora, averaging approximately 9% of the country's Gross Domestic Product (GDP). In 2024, remittances increased by 13%, which may be linked to the rising number of young emigrants as well as the increased cost of living for families remaining in the country. Data from the Bank of Albania indicate that remittances totalled 930 million euros in 2023. Figure 1, show that remittances constitute the sole source of income for approximately 26% of Albanian households. The significant growth of remittances began during the COVID-19 pandemic and was further amplified by the price crisis in 2022. In total, migrants sent at least 94 million euros more than in the previous year. Compared to 2022, remittances grew by 11.3% in 2023. Relative to 2013, when remittances were in a declining cycle, the flow has nearly doubled (Deda, 2024).

Figure 1: Annual trend of remittances in Albania



Source: Bank of Albania

The primary source of remittances received in Albania comes from countries with the highest concentration of Albanian migrants. These countries mainly include the European Union states such as Germany, Italy, and the United Kingdom, followed by Greece, the United States, and other secondary destinations. The origin of remittances reflects migration trends, particularly the new wave of migration over the past decade. The increase in the number of Albanian migrants to the United Kingdom and Germany has led to a noticeable rise in remittance flows from these countries. Meanwhile, the relative importance of Greece, which previously was the main source for Albania, has declined over the last decade, ranking it currently in fourth place.

3. Methodology

3.1 Research Design

This study employs a quantitative research approach aimed at examining the impact of remittances on the economic well-being of Albanian households. The research is based on primary data collected through a structured questionnaire designed to measure the relationship between remittance inflows and household economic conditions. A descriptive and analytical research design is adopted in order to assess both the economic contribution of remittances and their role in poverty reduction.

3.2 Research Objectives

The main objective of this study is to analyse the current economic situation of Albanian households and evaluate the impact of remittances on poverty reduction and household welfare. The specific objectives are:

- To examine the socio-demographic characteristics of remittance-receiving households;
- To assess the contribution of remittances to total household income;
- To evaluate the effect of remittances on poverty levels and living standards;
- To analyse respondents' perceptions regarding the broader economic impact of remittances.

3.3 Research Hypotheses

To achieve the objectives of the study, the following hypotheses are formulated:

H1: Remittances have a statistically significant positive effect on household economic well-being.
H0: Remittances do not have a statistically significant effect on household economic well-being.

H2: There is a positive relationship between the amount of remittances received and total household income.
$H0_2$: There is no statistically significant relationship between remittance inflows and household income.

H3: Households receiving remittances are less likely to experience poverty compared to non-recipient households.
$H0_3$: There is no significant difference in poverty levels between recipient and non-recipient households.

3.4 Data Collection and Instrument

Primary data were collected through a structured questionnaire distributed to randomly selected individuals. Participation in the survey was voluntary. The questionnaire was divided into three sections:

- **Section I:** Demographic characteristics (age, gender, education, employment status, household size).
- **Section II:** Remittance inflows and their contribution to household income, consumption, savings, and investment.
- **Section III:** Perceptions regarding the impact of remittances on poverty reduction and national economic development.

3.5 Variables of the Study

- **Independent Variable:** Remittances (amount and frequency of transfers).
- **Dependent Variables:** Household income, poverty status, consumption level, and savings behaviour.

- **Control Variables:** Education level, employment status, household size, and age.

3.6 Data Analysis Methods
The collected data will be analysed using descriptive statistics (frequencies, percentages, and averages) to summarize household characteristics and remittance patterns. Inferential statistical methods such as correlation analysis, t-tests, and regression analysis will be employed to test the research hypotheses and determine the statistical significance of the relationship between remittances and household economic well-being.

3.7 Research Significance
This study provides empirical evidence on the microeconomic impact of remittances in Albania and contributes to the existing literature on migration and development. The findings may support policymakers in designing effective strategies to maximize the developmental benefits of remittance inflows.

4. Remittances and their Impact on Albanian households

4.1 Analysis of the Questionnaire Results

The questionnaire is structured into three main sections. The first section aims to identify the personal and demographic characteristics of the respondents. The second section focuses on presenting the current situation of remittances and analysing their impact on household economic conditions. The third section summarizes individuals‘ opinions regarding the impact of remittances on the national economy, as well as suggested improvements for enhancing their management and effectiveness in the future.
The questionnaire was completed by randomly selected individuals who voluntarily agreed to share their personal experiences related to remittances and their economic circumstances.

4.1.1 Demographic Characteristics of the Respondents

Analysing the demographic characteristics of respondents is crucial, as it helps create a profile of study participants and understand the socio-economic context of expectations and benefits from remittances. The study included 150 participants. The data show that the majority of respondents were female, reflecting the current demographic trend in Albania, where male emigration has resulted in a higher concentration of women remaining in the country.

Age group: The most represented group was 35–50 years old, accounting for 43.33% of respondents, followed by the 18–24 age group with 36.67%. These two age groups appear to be the most interested in the current remittance situation and likely benefit the most. The first group primarily consists of family members who rely on remittances, while the second includes students or young adults entering the labour market.
Marital status: The majority of respondents are married, although the difference compared to other categories is not significant.

Educational level: Most respondents have completed secondary education. This may explain their reliance on remittances, as individuals with this education level may not be fully employed or earn sufficient income to cover living expenses.
Employment status: A higher proportion of respondents are unemployed compared to those employed. This highlights the role of remittances in alleviating household poverty.
Monthly personal income: A significant share of respondents earns very low monthly incomes, insufficient to cover basic consumption needs. This further explains the importance of remittances for these individuals.

4.1.2 Remittances and their Impact on Household Economy

In this section of the questionnaire, respondents were asked about the impact of remittances on their household economy.

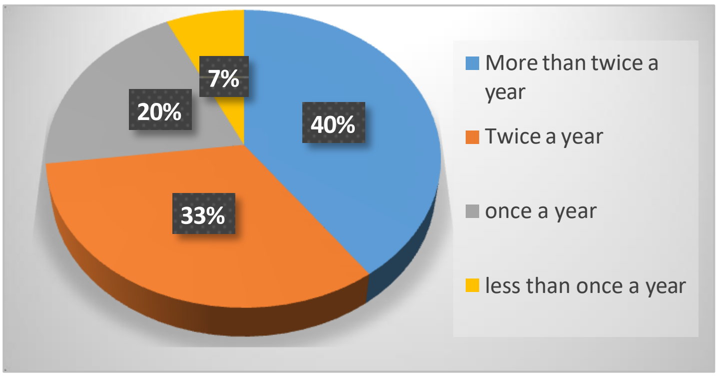
- *Percentage of respondents who receive remittances less than once per year or with greater frequency.*

The results indicate that 93.34% of respondents have relatives living abroad, while only 6.66% do not. Among those with relatives abroad, 90% reported experience receiving remittances, whereas 10% indicated no such experience. These findings demonstrate that remittances have a significant and positive impact on household economies.

Variable	Percentage of Respondents
Relatives living abroad	93.34%
No relatives abroad	6.66%
Experience receiving remittances	90%
No experience with remittances	10%

Figure 2 illustrates the percentage of respondents who receive remittances less than once per year or with greater frequency. This information is essential for understanding the patterns of remittance reception and how these funds contribute to household economic welfare.

Figure 2: Percentage of respondents who receive remittances less than once per year or more than twice per year



Source: Author, based on questionnaire data

Frequency of remittance reception (Figure 2):

- 40% of respondents receive remittances more than twice a year,
- 33% receive them twice a year,
- 20% receive them once a year,
- 7% receive them less than once a year.

Duration of receiving remittances:

- 63.3% of respondents have received remittances for 1–5 years,
- 23.4% for 5–10 years,
- 13.3% for more than 10 years.

These data indicate that remittances have significantly increased in recent years and represent an increasingly important source of income for Albanian households.

-Channels through which respondents receive remittances and their respective percentages.

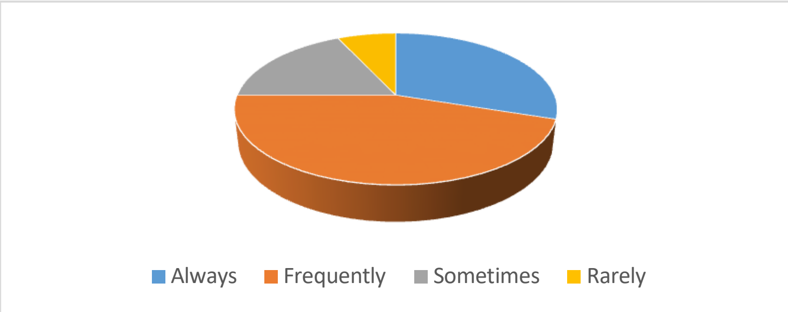
The results show that 42.35% of respondents use **money transfer agencies such as Western Union and MoneyGram** to receive remittances. **Bank transfers** rank second with 28.23%, though their use is limited due to higher costs and procedures. Other methods account for 15.29%, while 11.77% rely on **informal physical delivery**. The use of platforms such as **PayPal or Transfer Wise** remains minimal.

- Analysis of monthly household consumption expenditures.

Regarding the purpose of remittances, most respondents use them for basic expenses such as food and medication, reflecting economic hardship. Approximately 24.6% allocate them to medical emergencies and 21.1% to education. Only a small percentage use remittances for loan repayment or asset purchases.

The analysis of monthly expenses shows that respondents spend approximately 40,000–50,000 ALL on basic needs, often exceeding their income. Remittances play a key role in balancing household budgets. Most respondents receiving remittances more than twice a year reported average amounts of €450–500, sometimes up to €1,000, depending on the migrant's income.

Figure 3: Percentage of respondents who consider remittances as an important source of income



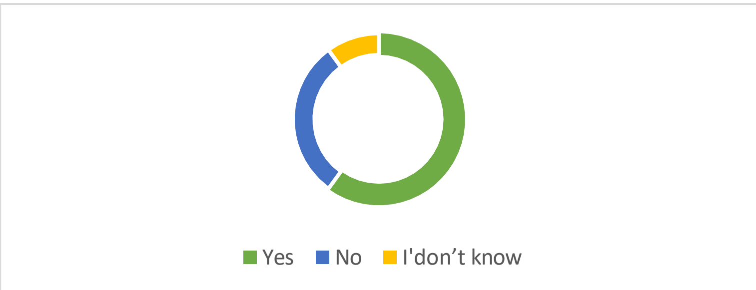
Source: Author, based on questionnaire data

About 30% of respondents always use remittances as a source of income, while higher-income individuals use them occasionally or rarely. This highlights the role of remittances in poverty reduction. Beyond economic effects, remittances also have social impacts, influencing individuals' decisions regarding participation in the domestic or international labour market.

-Percentage of respondents who believe they should participate in the domestic or international labour market.

Most respondents perceive that abroad there are more advantages, better employment opportunities, and higher incomes. This represents a social challenge for remittances, especially for the unemployed or those with low incomes. Some respondents are not influenced by family to work abroad and are satisfied with their current earnings.

Figure 4: Respondents who believe they should participate in the domestic or international labour market.



Source: Author, based on questionnaire data

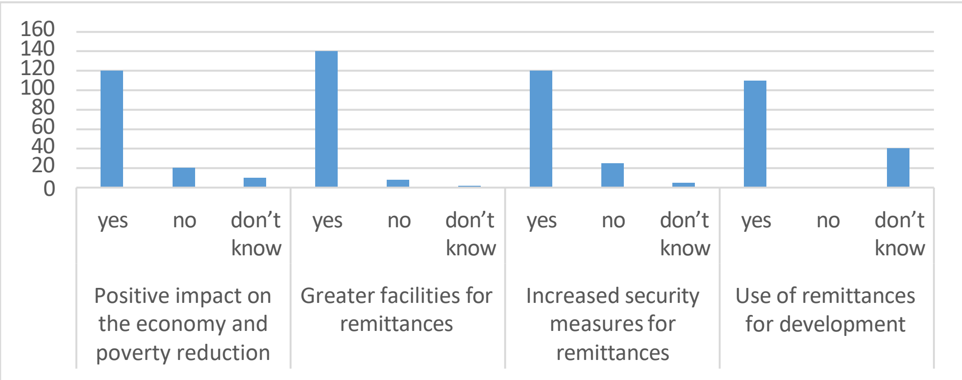
4.1.3 The Impact of Remittances on the National Economy and Future Prospects.

In this section of the questionnaire, respondents' opinions were collected regarding the impact of remittances on the national economy and their suggestions for areas that need improvement. The purpose of this section is to make the study more comprehensive and to identify what should be improved for the future.

The data show that most respondents view remittances as having a positive impact on the national economy and helping reduce poverty. They suggest improving remittance use through increased convenience, transaction security, and investment in new projects.

Key suggestions include: using remittances to start businesses to boost employment, developing projects to improve living conditions, promoting financial education and better banking infrastructure, and creating a national fund to channel remittances without bank fees.

Figure 5: *Percentage of individuals providing suggestions on the impact on the economy and its future remittances.*



Source: Author, based on questionnaire data

5. Conclusion

The primary aim of this study was to determine the role of remittances in reducing poverty, initially at the household level and more broadly within the national economy. To achieve this aim, various demographic, social, and economic variables were analysed, alongside respondents' opinions regarding the future of remittances and the country's economic development. The study produced results that support the proposed model.

The results show that the majority of respondents were female, reflecting the effects of unemployment and emigration, as most males have migrated to secure income for their families due to limited employment opportunities and low wages in Albania. Some men, discouraged by low wages, often forgo higher education and choose emigration as an alternative.

Young respondents have largely left their hometowns and moved to the capital in search of better employment opportunities. However, rising living costs and low wages have compelled some to emigrate abroad. Older age groups tend to remain in their hometowns and receive remittances from children or relatives living abroad.

Monthly expenditure analysis revealed that, in most cases, expenses exceed income, making remittances a key source for balancing household budgets and potentially saving. A significant proportion of respondents have received remittances for 1–5 years, indicating a continuous increase in recent years and a substantial economic impact on both households and the country. Most respondents use formal channels for remittance transfers, which provide security and convenience, though these systems need further improvement over time.

From a social perspective, many respondents are attracted to working abroad due to higher wages, better living conditions, and familial influence. This presents a challenge for the country, as the departure of young people increases the country's average age and reduces its population.

To enhance the impact of remittances on poverty reduction in the future, domestic projects and initiatives should focus on: creating more jobs, improving banking infrastructure, reducing transfer costs, and promoting the effective use of remittances. These measures would support national economic development and contribute to a substantial reduction in poverty.

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INNOVATION AND DIGITALIZATION IN HUMAN RESOURCE MANAGEMENT: THE CASE OF SHELL ALBANIA

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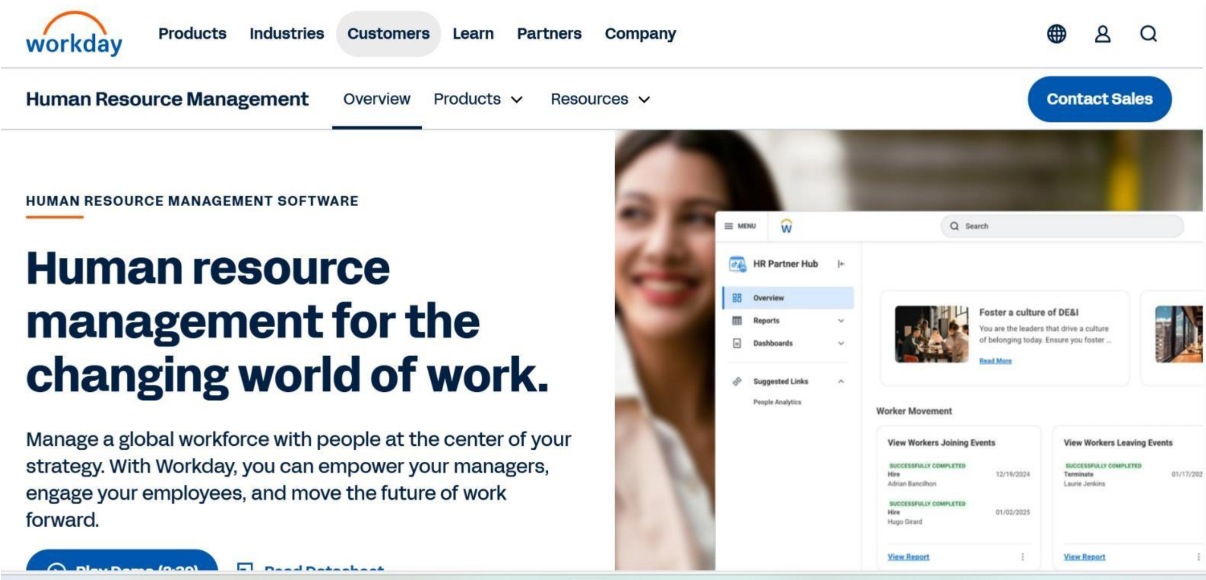
Abstract
The digital era has fundamentally transformed how organizations manage human resources. This study examines the digital transformation of HR functions at Shell Albania, focusing on the implementation of technologies such as SAP Success Factors, Workday, and workforce analytics systems. Data were collected through interviews with HR managers and employees, highlighting benefits, challenges, and impacts on organizational culture. Findings indicate that HR digitalization has accelerated recruitment processes, increased employee access to personal information and online training, and improved data-driven decision-making. Nevertheless, challenges include resistance to change, the need for training, and data security concerns. This case study demonstrates that strategic adoption of digital technologies not only enhances operational efficiency but also elevates HR to a strategic business partner. The study provides valuable insights for other companies seeking to implement similar digital practices in human capital management.

Keywords: *Digital transformation, human resources, interviews, organizational culture*

1. Introduction

Human Resources (HR) plays a central role in every organization, as it supports employees throughout their working experience and ensures that the company operates smoothly. For many years, HR processes in Shell Upstream Albania (SUA) were handled in a traditional way. Tasks such as recruitment, training, document management, and performance tracking were completed manually, often involving large amounts of paperwork. These processes required time, attention, and physical presence, which sometimes slowed down communication and limited the ability of HR to focus on people and long-term development.
As companies around the world began to adopt new technologies, the need for a digital HR system became more evident. In SUA, the introduction of digital tools such as Workday marked a major step toward modernizing the HR function. With this transformation, daily HR tasks became more efficient, organized, and accessible. Employees could easily view their payslips, contracts, work schedules, and training materials online. At the same time, HR gained more time to support employees, create positive work relationships, and guide talent development rather than spending hours on administrative activities.
The use of digital platforms also improved recruitment. Applications were submitted online, candidate information was stored in one place, and HR could filter applicants more quickly and professionally. Training became more flexible through online modules and webinars, which helped employees learn at their own pace—even those working in remote field locations. Communication also became more transparent, as employees could complete surveys, send feedback, and stay updated directly through Workday.

Of course, the digital shift also brought challenges. Some employees needed additional time to adapt to the new system, and not everyone had the same level of digital skills. Connectivity issues in certain areas also made access difficult at times. However, these challenges were manageable through training, guidance, and continuous support from HR.
Overall, digital HR has made work easier, faster, and more organized for both employees and the HR team. It helped SUA move from manual processes to a more modern and people-centered approach, improving not only efficiency but also collaboration and the overall employee experience.



Workday Software

1.1. Overview of HR Transformation in Shell Upstream Albania

The transformation of Human Resources in Shell Upstream Albania (SUA) represents a major change in the way HR processes were organized, communicated, and delivered across the company. As presented in the PPT, SUA began operating in Albania in 2012 and quickly became one of the most ambitious projects in the country‘s energy sector. With modern infrastructure, international standards, and a diverse workforce, the need for an efficient and well-structured HR system was essential from the start. HR played a central role in supporting employees, organizing training, managing contracts, and ensuring that company policies were applied clearly and fairly. However, many of these tasks were initially handled through traditional, paper-based methods, which made processes slower and less flexible.
As the company expanded and operations became more complex, it became clear that traditional HR methods were no longer suitable for the level of coordination required. Manual processes created delays in recruitment, extended the time needed for training, and made it difficult to keep employee information updated. In addition, employees working in remote field locations faced challenges accessing HR documents or communicating promptly with the HR team. These limitations highlighted the need for a faster, more transparent, and easier-to-use HR system.

To address these issues, Shell introduced digital HR platforms, most importantly **Workday**, which became the main tool for managing HR operations. Workday allowed employees to access their contracts, payslips, personal data, learning materials, and performance information directly from the system, without needing printed documents or in-person visits. Other digital HR tools mentioned in the PPT—such as SAP, Oracle, and HiBob—show how global companies are moving toward integrated platforms that simplify everyday HR tasks and improve communication across the organization.

The adoption of Workday in SUA brought more structure and consistency to HR processes. Recruitment became faster and more organized, as candidates applied online and HR could filter applications easily. Training became more accessible through online modules and webinars, helping employees learn at their own pace, especially those working in distant locations. Performance management also improved, with clearer goals, easier tracking, and better communication between employees and supervisors.

Interviews with the HR Advisor of SUA show that digitalization was initially received with curiosity but also some hesitation. Younger employees adapted more quickly and often helped others understand the system. Challenges such as low digital experience and unstable internet connectivity influenced the early stages of implementation, but continuous support and training helped overcome these difficulties. Over time, employees appreciated the simplicity of digital HR tools and the freedom they offered to manage their own information.

Overall, the transformation to digital HR in SUA created a more modern, transparent, and employee-centered system. It reduced paperwork, increased efficiency, and improved communication, allowing HR to focus more on people rather than administrative tasks. This shift represents a significant step toward aligning SUA with global HR practices and creating a more supportive and engaging work environment.

1.2. Key Benefits and Challenges of Digital HR

The introduction of digital HR tools in Shell Upstream Albania brought several clear advantages to the way HR services were delivered. One of the most important benefits was the significant reduction of manual paperwork. Tasks that previously required physical documents or in-person assistance became easier to complete online. This saved time for both employees and the HR team, allowing them to focus more on communication, development, and daily operations.

Digital platforms also improved recruitment by making the process faster and more organized. Applications were submitted online, information was stored in one place, and HR could filter candidates more efficiently. This helped create more transparent and professional experience for applicants and reduced delays in hiring.

Training and learning opportunities improved as well. Employees gained access to online courses and materials, which made participation more flexible, especially for those working in field locations. This supported continuous development and helped employees stay updated with company standards and requirements.

Digital HR also strengthened communication. Through the system, employees could send feedback, complete surveys, and stay informed about updates or changes. This increased transparency and helped employees feel more connected to the HR function.

Although the benefits were substantial, the transformation also presented challenges. Some employees needed time to adapt to the new technology, especially those with limited digital experience. Connectivity issues in remote areas created difficulties when accessing online tools. In addition, the use of digital platforms requires constant training and support to ensure that everyone can use the system effectively.

2. The digital HR transformation at Shell Upstream Albania

Human Resources (HR) is at the heart of every organization, shaping the employees' experience and ensuring smooth operations. In Shell Upstream Albania (SUA), HR processes were traditionally manual before 2015, with recruitment, training, payroll, and performance management handled through paperwork and in-person interactions. While these methods worked, they often slowed down communication, limited collaboration, and reduced the time HR could spend supporting employees' growth.

As technology advanced, the need for digital **HR transformation** became clear. Platforms like **Workday** and **SAP SuccessFactors** offered the opportunity to streamline processes, centralize data, and give employees direct access to information such as contracts, payslips, and training materials. This shift allowed HR teams to move beyond administrative tasks and focus on **developing talent, fostering teamwork, and promoting a positive workplace culture**.

The adoption of digital HR also brought challenges, including adapting employees to new systems and ensuring access in remote locations. However, through training, guidance, and continuous support, these hurdles were overcome, demonstrating that technology can enhance efficiency **without losing human touch**.

2.1. Methods

This study uses a **qualitative approach**, based on:

- Internal company reports and documentation.
- Interviews with HR personnel, including HR Advisors at SUA.
- Observation of Workday and other digital tools in action.

The research examines the effects of adopting digital HR platforms, their impact on efficiency, employee engagement, and challenges faced during implementation.

2.2. Results

The digital HR transformation at Shell Upstream Albania brought noticeable improvements across several areas. Routine administrative tasks, such as payroll processing, leave management, and document handling, became much faster, allowing HR teams to focus on supporting employees rather than paperwork. Employees gained easy access to contracts, payslips, schedules, and training materials online, which increased transparency and gave them more control over their information.

Recruitment processes were also more efficient, with digital applications and centralized candidate data enabling faster and more organized hiring. Training participation improved significantly as employees could complete online modules and webinars at their own pace, including those working in remote locations. At the same time, feedback systems and internal surveys strengthened communication and engagement, helping staff feel more involved in HR processes.

2.3. Discussion

Looking at the transformation of HR at Shell Upstream Albania, it‘s clear that moving from manual, paper-based processes to digital platforms has fundamentally changed how HR operates. In my opinion, the most significant impact is not just efficiency, but the shift in focus from tasks to people. With tools like Workday, HR teams can spend less time on routine paperwork and more time supporting employees, fostering collaboration, and creating a positive workplace culture.

I also think this transition highlights how technology can enhance human interaction rather than replace it. While digital platforms bring speed, transparency, and convenience, the human touch remains crucial, training, guidance, and support are still needed to ensure everyone benefits fully from the system.

At the same time, the experience of SUA shows that digital HR is not without challenges. Connectivity issues, resistance to change, and the learning curve for some employees illustrate that technology alone is not enough. Continuous support, clear communication, and a human-centered approach are essential to make the transition successful.

Overall, I believe that Shell‘s digital HR transformation is a great example of how organizations can balance efficiency and technology with employee engagement and culture. It demonstrates that when implemented thoughtfully, digital HR tools can empower both employees and HR teams to focus on what really matters: people, collaboration, and growth.

3. Conclusion

The digital transformation of Human Resources at Shell Upstream Albania (SUA) has fundamentally changed the way HR functions are delivered, managed, and experienced by employees. Moving from traditional, paper-based processes to modern digital platforms like Workday has increased efficiency, reduced administrative burdens, and allowed HR teams to focus more on strategic, people-centered initiatives. Recruitment, training, performance management, and employee engagement have all benefited from the centralization of data, automation of routine tasks, and improved communication across the organization.

While the transformation brought significant advantages, such as faster recruitment processes, accessible online training, and enhanced transparency, it also introduced challenges. Resistance to change, differences in digital skills, and connectivity issues in remote field locations were obstacles that required continuous support, training, and clear communication. The successful adoption of digital HR tools demonstrates that technology can enhance human interaction rather than replace it, reinforcing the importance of a balanced approach that combines innovation with human values.

Overall, the case of Shell Upstream Albania illustrates that digital HR is not merely about automating tasks—it is about enabling HR to become a strategic partner in organizational growth, talent development, and leadership. The shift towards a digital, people-centered HR model has created a more transparent, efficient, and engaging work environment, supporting both employees and the organization in achieving their goals. This experience underscores the critical role of technology in modern HR management and provides a practical example for other organizations seeking to implement digital HR solutions effectively.

Acknowledgment

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THE TRADITION OF THE CELEBRATIONS OF NOVEMBER 28, IN KORÇA IN THE 1920S, ACCORDING TO THE PRESS OF THE TIME

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Përmbledhje
Korça në momentin e shpalljes së pavarësisë më 28 nëntor 1912 ishte e pushtuar. Ky pushtimvonoi edhe përcaktimin një kohë të gjatë statusi territorial i rajonit. Vendimet e Konferencës së Ambasadorëve të Londrës përcaktuan që Korça do të ishte pjesë e Shqipërisë. Fillimi i Luftës së Parë Botërore dhe shumë ngjarje të lidhura me luftën e vunë në diskutim këtë realitet. Pas përfundimit të luftës Konferenca e Paqes në Paris rikonfirmoi shtetin shqiptar të vitit 1913, sepse përpjekjet e elitës shqiptare dhe lufta e popullisë bindën Fuqitë e Mëdha.
Rajoni i Korçës dhe banorët e tij më shumë se kudo në Shqipëri kërkonin lirinë e munguar Festa e pavarësisë e njohur edhe si Dita e Flamurit filloi të festohej në Shqipëri pas 28 nëntorit 1912. Kjo ditë është një ditë simbolike, një festë e përbashkët për të gjithë shqiptarët. Pavarësisht rrethanave, 28 nëntori dhe ngritja e flamurit kombëtar u kthyen në festën kryesore e cila filloi të festohej Korçë nga viti 1920. Duke u bazuar te shtypi i kohës në punim do të trajtojmë traditën e festimit të kësaj ngjarje, përgatitjet, mënyrën e festimit, fjalimet etj.

Fjalë Kyçe: 28 nëntor, festë kombëtare, shtypi, Korça, flamuri kombëtar

Abstract
At the time of the declaration of independence on 28 November 1912, Korçë was under occupation. This occupation also delayed the determination of the region's territorial status for a considerable period. The decisions of the London Ambassadors' Conference established that Korçë would be part of Albania. However, the outbreak of World War I and numerous war-related events called this reality into question. Following the end of the war, the Paris Peace Conference reaffirmed the Albanian state of 1913, as the efforts of the Albanian elite, along with popular resistance, convinced the Great Powers.
The Korçë region and its inhabitants, more than elsewhere in Albania, sought the long-denied liberty. Independence Day, also known as Flag Day, has been celebrated in Albania since 28 November 1912. This day holds symbolic significance. It serves as a shared celebration for all Albanians. Despite the prevailing circumstances, 28 November and the raising of the national flag became the principal celebration, which was formally observed in Korçë from 1920 onward. Drawing on contemporary press sources, this study examines the tradition of celebrating this event, including preparations, modes of celebration, speeches, and related practices.

Keywords: 28 November, national celebration, press, Korça, national flag

1. Introduction

The Balkan nations launched the war in October 1912 with numerous consequences for the states and peoples of the Balkans. After the defeat of the Ottoman forces, the Balkan armies moved in, allowing Ismail Qemali and his team to start their plans. In this context, Ismail Qemali and his collaborators began working to declare independence. They departed from

Istanbul for Albania, stopping first in Bucharest, Vienna, and Budapest. After securing the necessary support, they proceeded toward Albania to complete their mission.

As Ismail Qemali travelled toward Albania, overseeing the Initiating Committee's[*] preparations for the proclamation of independence, Ottoman troops entered Korça. At this pivotal moment, as independence was about to be declared, Albanian nationalists in several cities, observing the unfolding events and the advance of Balkan armies, proclaimed independence in their own regions. (Historia e shqiptarëve gjatë shek të XX., 2017)

From Vlora came a call for city leaders to travel there. Stavre Karoli, Mihal Grameno, Istref Verleni, Idhomene Kosturi (Grameno, 2018), and others set out for Vlora. Nikolla Zoi corroborated the leader's departure to Vlora (Zoi, 2001, p. 51). However, it remains uncertain whether they reached Vlora on the 28th of November since none of these patriots are listed as signatories of the Declaration of Independence. Nonetheless, a biography of Mihal Grameno published on the 25th anniversary of independence claims that he personally participated in the assembly where Albania‘s independence was declared.[1] Through a telegram from Starova, Hajdar Bey Blloshmi, the director of the Durrës Gymnasium, was designated as the delegate for Pogradec. (Frashëri, 2008, p. 138)

On the day after Ismail Qemali arrived in Vlora, on 28 November 1912, a decision was made to open the sessions of the National Assembly. Once the Assembly convened, the delegates' credentials were examined. Sali Gjuka proposed that Pandeli Cale, Athanas Floqi, and Spiro Ilo, prominent patriots present in Vlora at the time, be accepted as delegates representing Korça. The other delegates subsequently endorsed this proposal. (―Përlindja e Shqypniës‖, 1914, p. 5)

Following the verification of the delegates and the election of the Assembly‘s leadership, the newly elected chairman, Ismail Bey Qemali, took the floor. In his speech, he emphasized the reasons for convening the Assembly and the necessity for Albania to establish itself as an independent entity with its own government. Subsequently, the Assembly resolved that *―Albania shall from this day forward be independent, free, and autonomous under a provisional government‖*. (Kotini, Struga, Veizi, Shuteriqi, Dedi, 1963, p. 34) An integral part of this act was the signing of the Declaration of Independence, which was endorsed by 40 delegates present. Among them were the three representatives of Korça: Pandeli Cale, Athanas Floqi, and Spiro T. Ilo. (Frashëri, 2008, p. 81) Following this historic act, on the same day a telegram announcing the proclamation of independence and the raising of the national flag was sent to the municipalities and local authorities throughout Albania, including those of Korça and Starova. (Kotini, Struga, Veizi, Shuteriqi, Dedi, 1963, p. 36)

The act of independence was not recognized by the states that had occupied Albanian territories, as they sought to put an end to the newly established state. Even after the Great Powers recognized Albania and determined its borders, many territories remained under occupation. From the proclamation of independence until May 1920, the Korça region was occupied for most of this period. Korça, Bilisht, and Kolonjë were occupied by Greek forces, while Serbian troops were stationed in Pogradec; during the First World War, Bulgarian forces were later deployed there. The political life of the region was shaped by the decisions

[*] The Initiating Commission was established in Vlorë and was composed of Xhemil Vlora, Elmaz Kanina, and Leonidha Bezhani. This commission was formed to implement the directives of Ismail Qemali. It sent telegrams for the selection of delegates and prepared the groundwork in Vlorë for the convening of the National Assembly.

[1] AQSH, Fondi 170, Dosja 50, viti 1937, fl 4.

of the Great Powers and by Albanian-Greek conflicts over its territorial affiliation until 9 November 1921, when the region of Korça was definitively designated as part of Albania.

2. Korça on the Eve of the Proclamation of Independence

Then, the Ottoman army was present in Korça, Bilisht, and Kolonjë; Greek forces were preparing to intervene. In response, the nationalist leadership of Korça sought a solution to the unfolding crisis. They had come to understand that the ongoing presence of Ottoman troops might prompt nearby Balkan armies to intervene. These difficulties were further compounded by the lack of communication with the rest of the country. It remains unclear whether communication with Vlora was at all possible during this period.

The situation in the Korça region can be understood through a letter sent by the local notables of Leskovik to the Chairman of the Provisional Government of Vlora, Ismail Bey Qemali, on 2 December 1912. In this letter, they congratulated him on the raising of the national flag in Vlora while also clarifying the circumstances in which the town found itself: ―*In addition to our inability to send delegates, some of the local notables did not even participate in the nomination and appointment of a delegate, as they continued to fear the Ottoman soldiers who remained here like corpses. Moreover, a significant portion of the local elite had earlier temporarily departed for other places. These reasons prevented us from electing delegates. We, the undersigned, therefore request that you accept, in the name of our entire district (Leskovik), Mr Xhemil Bey from the notables of Vlora as our delegate, and, should it be deemed necessary, that another delegate be sent from here as well, so that our region may be represented in the Assembly.*‖ (Kotini, Struga, Veizi, Shuteriqi, Dedi, 1963, p. 50)

Nepsi Kerenxhi, in his memoirs, writes that the commission from Korca, which included Dr Haki Mborja and Tefik Panariti, was to meet with Xhavit Pashato to determine whether he would permit the raising of the national flag in Korça and the proclamation of the country‘s freedom. According to his account, Xhavit Pasha received them favourably and stated: ― *tell me who they are, so I will hang them upside down*‖. (Zoi, 2000, p. 55) In this context, several prominent figures of the city, such as Themistokli Gërmenji, Dr. Haki Mborja, Tefik Panariti, and Koço Grameno established contact with Albanian officers in the Ottoman army, who agreed to consider their proposals. For this purpose, a meeting was arranged at the residence of Themistokli Gërmenji. At this gathering, the raising of the national flag and the declaration of Korça as part of Albania were proposed. However, no consensus was reached, and no formal decision was taken. (Grameno, 2018, p. 55) Koço Grameno and Nepsi Kerenxhi note that Orhan Bey Pojani, an influential figure in the city, opposed these proposals, emphasizing that the moment was not appropriate for such actions. He argued that the city was not equipped to defend itself, lacking both an army and adequate armaments, and that initiating armed conflict would likely lead to defeat and destruction in the region. (Kerenxhi, 1962, p. 27) Given these circumstances, the patriotic elite of Korça refrained from taking further steps. Meanwhile, in Vlora, on 28 November, the National Assembly convened, proclaimed independence, and established the Provisional Government of Albania. Due to its isolation, Korça received no information about these events. The news of the proclamation of independence became known in Korça only on 22 December, two days after the Greek occupation. It arrived through newspapers from Athens that circulated among Greek soldiers. (Zoi, 2001, p. 55)

3. The Raising of the National Flag in the Korça Region, 1912–1920

Occupation and the international political situation were the main factors that limited the celebration of 28 November in Korça for several years. Despite the lack of official Independence Day celebrations, the national flag became a powerful symbol of state independence and national identity. As a result, throughout this period, Albanian patriots raised the national flag whenever circumstances permitted.

In August 1913, the Great Powers decided that Korça would form part of the Albanian state. On 17 December 1913, when the Boundary Commission convened in Florence, it reaffirmed this decision regarding the southern borders, that the Korça region rightfully belonged to Albania. (Murrzaku, 2017, pp. 604-605) Following this determination, the Vlora government initiated actions to bring the Korça region under its control. On 11 January 1914, forces led by Sali Butka and Dajlan Panariti entered Panarit. On that day, the national flag was raised at the residence of Dajlan Panariti. (Treska, 1917) The following day, troops led by Themistokli Gërmenji and Qamil Panariti arrived in the area, headed by a young man carrying the national flag. (Treska, 1917) Themistokli Gërmenji was welcomed with enthusiasm by nationalist youth, who subsequently joined his forces.

The two leaders launched an offensive aimed at expelling Greek military units and *andartes* from the Vakëfe area and neighboring villages of Kolonjë. Fierce fighting occurred in the villages of Korça and Kolonjë along the route toward Korça. The forces of Sali Butka and Themistokli Gërmenji liberated Panarit, Grabockë, Katund, Stratobërdë, Selenicë e Pishës, Kaltanj, and Qesarakë. (Duka, 2012, p. 147) Following the liberation of each village, the national flag was raised. (Treska, 1917, p. 94) Although the fighting was intense, only a few days after the offensive to take Korça, a political crisis erupted in Vlora. Ismail Qemali resigned as prime minister, prompting the withdrawal of the forces led by Themistokli Gërmenji and Sali Butka from the mission entrusted to them.

Facing mounting international pressure, Greece was compelled to withdraw its troops from the Korça region in March 1914. The Durrës government issued orders for Themistokli Gërmenji to take charge of Korça.On 2 March 1914, he entered the city and established Albanian administration, thereby formally integrating the region into the government of Durrës. Albanian flags flew from the homes of Korça's inhabitants.[2]

This situation proved short-lived, as Greek forces reoccupied the region in July 1914. The outbreak of the First World War compelled Prince Wied to abandon Albania in September of the same year. For more than two years, the Greek army maintained control over Korça and its neighboring districts. During this time, the celebration of 28 November was not possible, and the Albanian flag remained unfurled. (Gazet' e Korçës, 18 dhjetor 1920)

The circumstances shifted in the autumn of 1916, when Albanian guerrilla groups rose against the Greek military presence in Albania. On 29 October 1916, Themistokli Gërmenji and Sali Butka convened at the Melçan Tekke, (Ago, 2020, p. 168) where the Albanian flag was raised (Gazet' e Korçës, 18 dhjetor 1920) as a symbol of independence and of the struggle for the liberation of Korça. In December, an agreement was reached between French officers and Albanian forces led by Gërmenji and Butka. According to this agreement, on 10 December, the Autonomous Province of Korça was proclaimed. The official flag of the autonomous province was the Albanian flag, enhanced by three stripes from the French flag. Nikolla Zoi offers an evocative description of the moment the flag was raised: ―*Themistokli, with a*

[2] AQSH, Fondi 170, Dosja 50. Viti 1937, fl 4.

beaming countenance reflecting the happiness of his spirit, stepped onto the balcony and, amid the thunderous cheers of the anticipating crowd, solemnly raised the national flag.‖ (Zoi, 2001, p. 95) The declaration of autonomy conferred significant rights to the Albanian population of the region through the establishment of self-governance. French administrative authorities in Korça upheld this position until a directive arrived from Paris mandating the lowering of the Albanian flag.

On 18 February 1918, General Salle, Commander of the Allied Forces stationed in Thessaloniki, determined that only the French flag was to be displayed on official buildings in regions of Albania under French control. This decision was not executed until 18 March 1919, when the Albanian flag was no longer displayed alongside the French flag in the cities of Korça and Pogradec. This action, according to Lespinas, commander of the ―*Albanian Frontiers*‖*, ―would create an impression and be interpreted by many as an indication of the decisions that the Peace Congress was likely to take.*‖ (Çami, Luga, 2020, p. 154) One day later, representatives of the city of Korça informed the government in Durrës of this action by the French military authorities and simultaneously expressed regret over the conduct of the French government. (Çami, Luga, 2020, p. 157) As Lespinas had anticipated, the directive to lower the Albanian flag elicited profound shock among the population. A growing sense of mistrust began to develop, as emphasized by the French commander, and was further fueled by reports in the Greek press and by the actions of Greek authorities toward Albanian inhabitants in border areas. (Çami, Luga, 2020, p. 157)

On 26 May 1920, following the withdrawal of French forces, a precarious situation emerged in Korça. Anxiety mounted that Greek troops might return. To prevent such an outcome, a patriotic rally was organized. Not only the city residents , but also residents of all surrounding villages were notified. On Wednesday morning, ―the village leaders, at the head of their inhabitants, entered the city in orderly fashion. At five o‘clock in the afternoon, people were summoned to gather at the *Katundari* (Municipality). Participation was extraordinary; the streets were filled.‖ From the municipal balcony, the patriot Llambi Lapi spoke, during which he raised the national flag. (Kalendari Korça, Viti 1921. Ngjarjet e vitit 1920) The assembled crowd greeted this act with enthusiastic cheers. Once again, the national flag flew over the city this time, never to be lowered again.

4. The Tradition of 28 November Celebrations in Korça during the 1920s

The events that transpired in Albania following the proclamation of independence, such as foreign interventions, the actions of Greek and Serbian forces, and the massacres committed against the civilian population, significantly strengthened Albanian national consciousness. In southern Albania, Greek troops carried out numerous atrocities against, often without distinction between Muslim and Christian communities. As a result of these actions, support for an independent Albania expanded considerably.

The occupation of the Korça region rendered Independence Day celebrations impossible; however, in November 1913, the town of Pogradec was liberated. Albanian nationalists present there, Stavro Karoli, Abdyl Ypi, and Mihal Grameno, organized celebrations marking the first anniversary of the proclamation of independence. They appointed a committee, led by Abdyl Ypi, to design the program and oversee the organization of the festivities. The townspeople rallied together in the festive preparations, and homes were decorated with national flags. On 28 November 1913, after the population had gathered, several patriots

delivered speeches that were met with exuberant cheers, ‗Long live Albania!‘ and ‗Long live the Flag!‖ (―Përlindja e Shqypniës‖, 1913) This event remained a cherished memory for the inhabitants, as in 1914, with the outbreak of the First World War, Pogradec was once again occupied. By the war's conclusion, Pogradec had fallen under French control.
At a time when the fate of the Korça region was being debated in Paris, history repeated itself in Pogradec. The French authorities authorized the commemoration of Independence Day on 28 November 1919. These celebrations were graced by the presence of the French district commander, Mr Mortier. A variety of activities unfolded in the city center, engaging the population, government officials, and the gendarmerie. Following the festivities, Muslims and Christians together attended the mosque and the church, where they offered prayers to God. (Çami, Luga, 2020, p. 468)
After Korça was unified with the government in Tirana, celebrations of Independence Day gradually took shape in the city. On 28 November 1920, Korça was finally able to celebrate freely. *Gazeta e Korçës* conveys the festive atmosphere, noting that preparations began on 26 November. On 27 November, the ―Vatra‖ band performed several concerts at government offices, and celebrations continued throughout the night. (Gazeta e Korçës, 30 nentor 1926) From 1920 onward, Independence Day became the most significant celebration in the city and the wider region, incorporating distinctive rituals.
The press chronicled these events in detail, providing extensive information. Public participation in the celebrations was immense. At 9:00 a.m., the population gathered, followed by a variety of engaging activities. At 3:00 p.m., a parade took place along Saint George Boulevard, featuring the army, the gendarmerie, the ―Vatra‖ band, women‘s associations, and artistic societies. The national anthem was then performed, followed by speeches by prominent figures. (Gazeta e Korçës, 30 nentor 1926)
The celebrations of 1920 established a tradition that included prayers held in religious institutions. At 9:00 a.m., a prayer was held at the Great Mosque. Afterwards, the population, accompanied by local artists of Korca, proceeded to Saint George Church for a second prayer. (Gazeta e Korçës, 30 nentor 1926) This tradition of religious harmony and mutual respect continued throughout subsequent anniversaries of independence.
Independence Day that year was also celebrated in the Opar region. Under the supervision of Deputy Prefect Sabri Panariti, a leading nationalist, a day filled with vibrant festivities. In Lavdar, the administrative center of the region, speeches were delivered accompanied by chants of ―Long live the Flag.‖ Schoolchildren sang the national anthem in an atmosphere of joy, where, as reported by *Koha*, tears were also shed. (Koha, 1920)
The following year witnessed a similar atmosphere. However, significant developments had already set the course for the future of the Korça region. On 9 November 1921, the Great Powers definitively recognized Albania‘s independence. By 27 November, Korça was decorated with national flags. The ―Vatra‖ band visited government offices and performed a selection of marches. At Saint George Church, Father Vasil Marko led the prayers, himself a notable presence in the city. Following the church service, the population proceeded to the mosque, where prayers were offered for the flag and the Albanian language. Speeches were delivered in the city center, and visits were made to state institutions. (Posta e Korçës, 29 nëntor 1921) A significant event on 28 November was the transfer of the Korça Metropolis to a committee of dedicated Albanians. (Kalendari Korça, Viti 1922) The ―Vatra‖ band also performed in front of the Metropolis, as the crowd chanted ―Long live the Albanian Metropolis.‖ (Posta e Korçës, 29 nëntor 1921)

The 28 November celebrations of 1921 were also held in Kolonjë. *Posta e Korçës* reported that Flag Day was embraced by the entire community, irrespective of their religious backgrounds. In Ersekë, students from various village schools convened. Priests and imams stood at the forefront of the festivities. Prayers were conducted first in the church and then in the mosque. The municipal building was decorated with national flags and photographs of martyrs, including Colonel Thompson, Themistokli Gërmenji, Gani Butka, Zalo Prodani, Petro Nini, (Posta e Korçës, 29 nëntor 1921) and others.
The celebrations of 1922 were also reported by *Shqiptari i Amerikës,* a recently established newspaper. According to the program, festivities commenced in a city that had been decorated with national flags the previous day. In the morning, the now-traditional prayers were held. After the prefect�|s address, the ―Vatra‖ band performed the national anthem and other musical pieces. (Shqiptari i Amerikës, 2 dhjetor 1922) *Koha* reported that the Italian and Serbian consuls stationed in Korça attended the 1922 celebrations, as did members of the International Boundary Commission present in the city at the time. (Koha, 28 nentor 1925) Notably, a congratulatory message from Dimitri Jovan Tushemishti, who expressed his heartfelt wish that the Albanian nation might enjoy enduring prosperity, progress, honour, glory, and good fortune, uniting all the sons of the Eagle under the protection of the Holy Flag. (Koha, 28 nentor 1925)
That year, 28 November was also celebrated in Pojan. The entire village was decorated with national flags. The celebrations were attended by clergy, local officials, the population, and schoolchildren. Morning prayers were held in both the mosque and the church, followed by festivities throughout the day. (Koha, 28 nentor 1925)
The celebrations of 1923 followed the ritual that had by then become traditional. A program of events was prepared the previous day. On the designated morning, prayers were held at Saint George Church and the Great Mosque. These festivities coincided with the electoral campaign taking place at the time. Fan Noli was present in Korça and participated in the festivities. He made the automobiles of the Liberal Party[*] available for the city officials, transporting the prefect, the religious authorities, Bishop Kisi, the mufti, Bektashi leaders, and the population. All gathered in Themistokli Gërmenji Square, where Noli delivered a speech, during which the crowd chanted ―Long live the Flag‖ and ―Long live Noli.‖ (Koha, 28 nentor 1925)
Beginning in 1924, the celebrations of Independence Day became increasingly formalized. The program of activities honoring national independence was structured with specific timetables. Contemporary press reports indicate that celebrations extended beyond the city into surrounding areas. *Gazeta e Korçës* reported festivities in Vithkuq and the Gora region. (Gazeta e Korçës, 30 nentor 1926)
On 28 November 1925, commemorative articles continued to appear in the press. *Koha* described the celebratory atmosphere in the Trebinjë region, where a local committee organized the necessary preparations. Religious services and speeches were held, alongside the singing of the national anthem and the President‛s anthem. (Koha, 28 nëntor 1925) *Gazeta e Korçës* reported celebrations in various regions, including Voskopojë, Vithkuq, and

[*] The electoral campaign of 1923 in the Korçë Region unfolded in a distinctive manner. Particularly noteworthy was the presence of several automobiles accompanying Fan Noli. These vehicles were filled with young supporters of the Liberal Party, who traversed the city‛s streets chanting slogans such as ―Long live Fan Noli‖ and ―Long live the Liberal Party.‖

Vidohovë in Devoll, as well as reports from the Skrapar area. (Gazeta e Korçës, 30 nentor 1926) Notably, was *Gazeta e Korçës*'s report on the celebration of Independence Day in the Pustec region, an area inhabited by a Slavic minority and only recently brought under Albanian government authority. On that day, a ceremony was held, prayers were conducted in the church, and a local teacher delivered a lecture dedicated to the significance of the day. (Gazeta e Korçës, 30 nëntor 1926)

In subsequent years, the long-standing tradition continued to be described in the media coverage. This coverage conveyed the festive atmosphere and commemorated the symbolic meaning of 28 November (Gazeta e Korçës, 30 nëntor 1926), often providing detailed accounts of ceremonial events and celebrations. (Zëri i populli, 29 nëntor 1927)

Another important element of the celebrations was the decoration of public and private spaces with national flags. Contemporary newspapers frequently published images of the national flag, although these representations varied in form. What remained consistent, however, was the red background and the double-headed eagle.

5. Conclusions

National symbols constitute an integral part of a country's history and culture. They embody national identity and collective pride. The national flag, in particular, became a central symbol of the struggle for independence. The raising of the flag and the proclamation of independence in Vlora on 28 November 1912 marked the beginning of a new era for Albania; however, historical circumstances did not permit these acts to take place in the Korça region.

Despite these constraints, the national flag emerged as a symbol of freedom. As a consequence of Greek occupation, the First World War, and the period of French administration between 1912 and 1920, Independence Day could not be celebrated in Korça, Bilisht, or Kolonjë. Nevertheless, Albanian nationalists did not abandon their efforts to liberate the region. In the struggles they waged to defend the area and secure its unification with Albania, the national flag represented their most cherished symbol and was raised wherever they fought.

The unification of the region with the rest of the country was welcomed with profound joy. The national flag and 28 November became the primary symbols of this unification. The celebrations associated with this event testified to deep patriotism and a strong desire for freedom. The atmosphere conveyed by the contemporary press was intense and emotionally charged, enabling even today's reader to experience the sentiments of the participants. The national flag and Independence Day came to symbolize unity and religious harmony, as Muslims and Christians stood together under the sacred flag.

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THE ESTABLISHMENT OF COMMUNISM IN ALBANIA: IDEOLOGICAL INTERPRETATIONS AND HISTORIOGRAPHICAL REASSESSMENTS OF ALBANIAN-YUGOSLAV ECONOMIC RELATIONS

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Abstract
This study examines a critical period in the post-World War II relations between Albania and Yugoslavia, focusing on the establishment of communism in Albania. Both countries' leaderships aimed to overcome historical obstacles and foster close economic, political, and military cooperation. Historical interpretations of this period have often been shaped by the ideology of the Albanian Communist Party and by the policies of Enver Hoxha, who frequently deflected personal responsibility onto so-called —internal‖ and —external enemies.‖ This research seeks to provide an objective analysis by reassessing contested historiographical narratives and grounding its conclusions in robust documentary evidence.

Keywords: Albania, Yugoslavia, economy, agreements, international relations.

Abstrakt
Ky studim trajton një periudhë kyçe në marrëdhëniet shqiptaro-jugosllave në vitet e para pas Luftës së Dytë Botërore, duke u përqendruar veçanërisht në procesin e vendosjes dhe konsolidimit të regjimit komunist në Shqipëri. Udhëheqjet politike të të dy vendeve synuan të kapërcenin trashëgiminë e tensioneve historike dhe të ndërtonin një bashkëpunim të ngushtë në rrafshin ekonomik, politik dhe ushtarak, në funksion të krijimit të një modeli të përbashkët socialist në rajon. Megjithatë, interpretimet historiografike të kësaj periudhe janë ndikuar në masë të konsiderueshme nga qasja ideologjike e Partisë Komuniste të Shqipërisë, si edhe nga qëndrimet politike të Enver Hoxhës, i cili shpeshherë përgjegjësitë për zhvillimet problematike i atribuonte të ashtuquajturve —armiq të brendshëm‖ dhe —armiq të jashtëm‖. Në këtë kontekst, ky punim synon të ofrojë një rishqyrtim kritik të këtyre interpretimeve, duke analizuar në mënyrë objektive debatet historiografike dhe duke i mbështetur përfundimet në një bazë të gjerë burimesh arkivore dhe dokumentare. Përmes një qasjeje analitike dhe krahasuese, studimi synon të kontribuojë në një kuptim më të balancuar dhe më pak ideologjik të kësaj periudhe të rëndësishme të historisë politike të Shqipërisë.

Fjalë kyçe: Shqipëria, Jugosllavia, marrëdhënie ekonomike, marrëveshje, marrëdhënie ndërkombëtare

1. Introduction

The Second World War, accompanied by the fascist Italian and Nazi German occupations of the Balkan states, created new political and military circumstances that facilitated a temporary rapprochement between Yugoslavia and Albania in the context of the anti-fascist struggle. Within this framework, the year 1941 represents a pivotal moment in modern Albanian political history. While resistance against the fascist occupiers was spreading throughout the country, the conditions were simultaneously created for the establishment of the Albanian Communist Party (ACP).

The circumstances surrounding its foundation have been interpreted differently within historiography; however, in all existing narratives, the involvement of the Yugoslav element remains indisputable. In fact, communist activity in Albania can be traced back to the early 1920s, when a group of Albanian activists was encouraged and financially supported by the Comintern through the Balkan Communist Federation.

Following the failure of the June Movement of 1924 and the return of Ahmet Zogu to power, a considerable number of politicians, intellectuals, and public activists who had been actively involved in the events of that year were forced to leave Albania in order to escape political persecution and repression (Venxha, 2025, f. 56-65). Although continuous efforts were made during the 1920s and 1930s to organize a communist force-where figures such as Koço Tashko, Llazar Fundo, and Ali Kelmendi played an important role-these attempts remained fragmented and ultimately unsuccessful. Consequently, the foundation of the ACP was achieved only under the conditions of the Second World War, with the decisive involvement of the Yugoslav emissaries Miladin Popović and Dušan Mugosha (Venxha, 2005, f. 56-65).

The active presence of these emissaries, not only during the initial phase of the establishment of the ACP but also in its subsequent leadership and direction, has generated extensive debates regarding the nature and the real objectives of Yugoslav intervention in Albanian political structures. These debates were not limited to circles outside the communist movement but also took place within the Albanian communist ranks themselves, where interpretations of this intervention evolved continuously depending on the prevailing political and ideological context (Butka, 2014, f. 25-38).

Within this context, a fundamental analytical question arises: was the shared anti-fascist ideology sufficient to ―melt the ice‖ between two states with historically strained relations and to lead them toward close political and organizational cooperation? This question becomes even more pressing when considering that Albanian-Yugoslav relations were overshadowed by the unresolved Kosovo issue, which loomed as a ―Sword of Damocles‖ over bilateral relations. Consequently, it becomes necessary to understand why Yugoslavia altered its tactical approach toward Albania during this period and which political and ideological factors dictated this rapprochement.

This process of rapprochement, largely driven by Belgrade, directly influenced Albania‘s political orientation in the immediate post-war period. As a result, the country aligned itself with the bloc of Eastern European communist states, thereby losing a historic opportunity to integrate into the Western camp and to benefit from the assistance provided by the Marshall Plan. This decision had long-term consequences, negatively affecting Albania‘s economic development throughout the second half of the twentieth century.

Albanian–Yugoslav relations between 1945 and 1948 went through several distinct phases. The first phase involved the drafting and approval of a common legal and economic framework for bilateral cooperation, particularly in the fields of economic development, monetary and financial policy, customs, and trade and industry. The second phase was characterized by efforts to harmonize policies at the regional and international levels, reflecting ambitions for broader political and strategic coordination. The third phase marked the onset of conflict and the final rupture of bilateral relations in the context of the Tito–Stalin split, which found Albania in a particularly fragile political and economic position.

Within this framework, the present study aims to analyze Albanian-Yugoslav relations during the period 1945-1948, with particular emphasis on the economic dimension of this cooperation and the manner in which it was employed as a political and strategic instrument in the process of consolidating communist power in Albania. Through a historical-analytical approach, the article examines the construction of the legal and institutional framework of bilateral economic cooperation, the monetary, financial, customs, and trade-industrial policies implemented during this period, as well as the structural consequences that these relations produced in shaping the country‘s economic orientation.

2. Literature Review

Albanian–Yugoslav relations during and after the Second World War have been extensively addressed in both Albanian and international historiography. For a long period, however, this field of study was heavily conditioned by ideological approaches that influenced not only final interpretations but also the selection and use of sources. Until the early 1990s, the dominant narrative in Albanian historiography portrayed Albanian-Yugoslav relations as ―*fraternal*‖ and grounded in ideological solidarity up to 1948, while following the Tito-Stalin split these relations were reinterpreted as being based on deception and Yugoslav hegemonic ambitions toward Albania. Although diametrically opposed, both approaches remained closely tied to the political discourse of their respective periods and frequently neglected a structural analysis of bilateral relations.

After 1992, the gradual opening of archives and the emergence of a more pluralistic climate in historical studies enabled a critical reassessment of these relations. A significant portion of the new scholarship focused on the political and diplomatic dimensions of Albanian-Yugoslav relations, highlighting the asymmetry of power between the two countries and Yugoslavia‘s role as an intermediary for Albania within the socialist bloc. Nevertheless, despite this methodological progress, the economic dimension of these relations has remained relatively underexplored and has often been treated as a consequence of political dependence rather than as an active mechanism of influence and control.

Studies such as documentary collections on Albanian-Yugoslav relations between 1945 and 1948, works on the history of the Albanian economy in the period 1944-1960, and analyses of conflicts within the leadership of the Albanian Communist Party/Party of Labour of Albania provide valuable data on bilateral economic agreements, monetary, trade, and institutional policies, as well as on joint economic projects. However, in most cases, these aspects are approached descriptively and are not examined in depth as components of a broader economic and geopolitical strategy.

This study seeks to build upon the existing historiographical foundation by addressing a significant research gap through placing the economic dimension at the center of the analysis of Albanian-Yugoslav relations in the years 1945–1948. By examining economic agreements, institutional mechanisms, and forms of economic integration, the article argues that economic cooperation was not merely the result of ideological affinity but a fundamental instrument of political influence and the creation of structural dependency. In this way, the study aims to contribute to a critical reassessment of existing narratives and to a deeper understanding of Albania‘s post-war economic orientation and its long-term consequences.

Data of particular importance for this study have been obtained from primary archival sources, specifically from the fonds of the Central State Archive (*Arkivi Qendror i Shtetit - AQSH)* and the Archive of the Ministry of Foreign Affairs (*Arkivi i Ministrisë së Punëve të*

Jashtme - AMPJ). These archives provide detailed information on bilateral agreements, institutional mechanisms, and economic policies that characterized Albanian–Yugoslav relations during the period 1945–1948. Such archival materials allow for a direct analysis of the practices of economic cooperation and the forms of dependency that were constructed during this early phase of the post-war order.
At the same time, the study draws on a broad body of Albanian and international historiographical literature that has examined Albanian–Yugoslav relations from diverse political, ideological, and historical perspectives. Among the principal works consulted are synthetic studies on the Second World War and the immediate post-war period, such as *Shqipëria gjatë Luftës 1939-1945, Historia e Popullit Shqiptar,* and *Historia e Shqipërisë 1912-2000,* as well as works focusing on Enver Hoxha and the internal dynamics of power, including *―Letra e panjohur e Enver Hoxhës (Dokumente nga arkivat ruse)‖, ―Enver Hoxha dhe katër ditët e Beratit (23-27 nëntor 1944)‖, ―Enigmat e sundimit të Enver Hoxhës (1944-1961)‖* and *―Lufta politike në udhëheqjen e PKSH/PPSH (1944-1960)‖.*
A distinct place in the analysis is occupied by publications that directly address Albanian-Yugoslav relations and the broader regional context, such as *Marrëdhëniet shqiptaro-jugosllave 1945-1948 (përmbledhje dokumentesh), Marrëdhëniet shqiptaro-jugosllave 1939-1948 (Gjaku i tradhtuar), Titistët, Europa Ballkanike nga Lufta e Dytë Botërore në ditët tona* as well as studies on the Kosovo question and Albanian state formation. Furthermore, literature on post-war economic and institutional developments-particularly *Ekonomia e Shqiprisë në vitet e para të ndërtimit socialist* -and works on international assistance, such as *UNRRA në Shqipëri*, provide an essential foundation for analyzing the economic dimension of bilateral cooperation. Complementary value is also provided by the contemporary press, which reflects the official discourse and public narrative surrounding Albanian–Yugoslav relations. In this regard, the newspapers *Bashkimi* (1945-1948) and *Puna* (1946) serve as important sources for understanding how economic and political cooperation was legitimized in the public opinion of the period.

3. The Economic Convention between Yugoslavia and Albania

Following the failure of the Mukje Agreement between the anti-fascist forces operating in Albania, the political situation in the country deteriorated and culminated in an internal conflict between the National Liberation Front, dominated by the communists, and the nationalist forces of the Balli Kombëtar. The collapse of the Mukje Agreement coincided with Yugoslavia's strategic interests during this period, as it had, de facto, assumed a guiding role over the Albanian Communist Party (ACP) and sought to ensure the establishment of an Albanian government composed exclusively of communists, thereby maximizing its own strategic advantage (Butka, 2014; Syla, Lita, 2020).
After the December 1945 elections, Enver Hoxha aimed to revise the economic model of the period 1925–1939, which he regarded as a failure-excessively dependent on foreign capital and on Italo-Albanian capitalist enterprises, and ultimately exploitative for Albania. The economic model proposed by Hoxha-a centralized and planned economy characterized by extensive nationalizations and the gradual reduction of private property-was alien to Albanian tradition and social culture, where land and property held strong identity-based significance and where people had historically been willing to fight to preserve their rights over them. This new economic model represented a radical transformation that required substantial external

support; within this context, Yugoslavia emerged as the principal actor and supporter of Hoxha‘s economic policies (Fishta & Toçi, 1984, f. 382-392).
Economic relations were formally institutionalized during Enver Hoxha‘s visit to Yugoslavia, when the Economic Convention between the two countries was signed. The agreement provided for the coordination of economic plans, customs harmonization, and the equalization of currencies (Bashkurti, 2003). The Presidium of the Yugoslav People‘s Assembly, represented by Boris Kidrič and the Minister of Industry, together with the Albanian representatives Nako Spiro and the Albanian Minister of Economy, exchanged full powers (*pleins pouvoirs*) in order to formalize the agreement (AMPJ, fondi 114, 1946)
The main provisions of the Convention included:

1. The coordination of the economic plans of both countries and the establishment of joint coordinating bodies, which were scheduled to be created by 15 December 1946.
2. The equalization of currency values, whereby the Albanian lek was to be aligned with the Yugoslav dinar, as well as the provision of the materials necessary for Albania‘s economic reconstruction through imports from Yugoslavia, in accordance with the coordinated economic plans.[1]
3. The elimination of customs borders within one month, thereby creating a common customs territory.[2]
4. The duration of the treaty, set at thirty years, with automatic renewal every ten years unless formally denounced by either party.
5. The entry into force of the agreement immediately upon its signature on 27 December 1946.

The Convention was actively promoted by the Albanian Telegraphic Agency and by the contemporary press, which emphasized public enthusiasm and expectations regarding economic benefits and regional stability. At the Extraordinary Plenum of the Albanian Communist Party (18-20 December 1946), Enver Hoxha highlighted the importance of Yugoslavia as a ―more advanced and more developed‖ country, viewing this cooperation as an opportunity to strengthen Albania and to contribute to stability in the Balkans. According to the press of the time-particularly the newspaper *Puna*-Albania perceived coordinated

[1] "The monetary circulation in the People‘s Republic of Albania shall be proportional to the monetary circulation in the Federal People‘s Republic of Yugoslavia, taking into account the population and economic capacity of both countries. Until the monetary reform, as provided in the first paragraph of Article II of this treaty, the government of the People‘s Republic of Albania shall adopt a pricing system in place of its own, based on the prices prevailing in the territory of the Federal People‘s Republic of Yugoslavia." AMPJ, Fondi 114, viti 1946, f.13, Titulli i dosjes ―*Traktati (Konventa ekonomike) në mes Shqipërisë dhe Jugosllavisw për koordinimin e planeve ekonomike, për bashkimin doganor dhe barazimin e monedhave‗.*

[2] Within the territory of the single customs area, the customs systems and tariffs in force in the Federal People‘s Republic of Yugoslavia shall apply. Goods shall be taxed by the competent authorities of the contracting party into whose territory the goods are imported, and the revenues collected shall be allocated to that contracting party to which the goods are destined. In order to ensure the effective implementation of the provisions of the preceding paragraph, a mixed Albanian –Yugoslav customs commission shall be established within the territory of the People‘s Republic of Albania. AMPJ, Fondi 114, viti 1946, f.13, Titulli i dosjes ―*Traktati (Konventa ekonomike) në mes Shqipërisë dhe Jugosllavisë për koordinimin e planeve ekonomike, për bashkimin doganor dhe barazimin e monedhave*―.

economic relations with Yugoslavia as an instrument of proletarian internationalism and a means for national reconstruction. The newspaper stressed that these relations ―were not relations between two countries in which speculators, landlords, or feudal elites were in power,‖ underscoring their distinctive character as opposed to unilateral or speculative exploitation of the peoples of the two countries (Gazeta *Puna*, Tiranë, nr. 71, 1946).

Along the same lines, the Prime Minister of Serbia, Blagoje Nešković, in his address before the Presidium of the Federal People‘s Assembly of Yugoslavia during the ratification of the treaty on the coordination of economic plans, customs union, and currency equalization between the Federal People‘s Republic of Yugoslavia and the People‘s Republic of Albania, emphasized, among other points, that: ―*This agreement is not a ‗final‘ one, nor is it directed against anyone; rather, it protects our country and Albania from those who harbor imperialist tendencies, from those who are accustomed to and seek to profit at the expense of others. In short, this agreement constitutes significant assistance in strengthening peace in the Balkans and in Europe*‖ (Gazeta *Bashkimi*, Tiranë, nr. 624, 1946).

Nevertheless, the practical implementation of these agreements revealed that the priorities of the Yugoslav leadership were oriented primarily toward its own strategic and economic interests. While Albania sought economic coordination based on the principles of proletarian internationalism, equality, and respect for national independence, Yugoslavia attempted to integrate the Albanian economy as an extension of its own economic plan. This approach aimed at securing raw materials for Yugoslav industry and at controlling the production of strategic resources such as sunflower and cotton. According to these plans, Albanian agriculture was not expected to prioritize food security for the domestic population but rather to focus predominantly on production for the Yugoslav economy. This dynamic exposed the nature of the structural dependency that Yugoslavia sought to impose on Albania through economic and political mechanisms (Fishta, Ziu, 2004, f.191).

4. Albanian–Yugoslav Joint Enterprises

The economic treaty of July 1946 was followed by the Agreement on Economic Cooperation, which was discussed and elaborated during the Extraordinary Plenum of the Central Committee of the Albanian Communist Party (ACP) in December 1946. The agreement focused on the establishment of Albanian–Yugoslav joint enterprises between the People‘s Republic of Albania and the Government of the Federal People‘s Republic of Yugoslavia, with the stated aim of expanding production capacities and strengthening economic cooperation between the two countries (Fishta, Toci, 1984, f. 382-384).

According to the decisions adopted at this plenum, the economic development of Albania and Yugoslavia was intended to be coordinated along the same ideological and organizational lines through the harmonization of economic plans, the creation of joint enterprises, customs unification, monetary equalization, and price alignment. To this end, the establishment of a joint coordinating commission was envisaged, alongside the unification of certain sectors related to defense and the military, while economic cooperation was conceived as the foundation for a broader integration of political and organizational structures.

Yugoslav emissaries emphasized the central role of the economic sector as the primary axis of cooperation, stressing that ―*Albania could not survive on its own*‖ and that the federation would initially concentrate on the development of economic sectors. The agreement also aimed at creating a network of institutions and administrative structures designed to facilitate the implementation of joint economic plans and to ensure oversight of new industrial and agricultural projects (Malltezi, Plasari, 2009, f. 82-84). Within this framework, economic coordination and the organization of joint enterprises were considered essential steps toward strengthening institutional ties and enhancing Albania's production capacities in accordance with coordinated development plans.

The Albanian–Yugoslav mixed enterprises were to be established on the basis of a bilateral agreement between the two parties. The provisions of this agreement were defined as follows: Article I stipulated that, with the objective of restoring and expanding production capacities in the People's Republic of Albania and strengthening economic cooperation between the People's Republic of Albania and the Federal People's Republic of Yugoslavia, the governments of the two states agreed to organize Albanian–Yugoslav joint-stock enterprises (Gazeta *Bashkimi* nr.623, 1946)

The Agreement on Economic Cooperation between the People's Republic of Albania and the Federal People's Republic of Yugoslavia, signed on 1 July 1946, provided for the creation of a series of joint Albanian–Yugoslav enterprises in key economic sectors, including the construction and operation of railways, the oil industry, mineral processing, electrification, maritime transport, import–export trade, and the establishment of a joint bank (Article I). The agreement further defined the provision of technical assistance and credit to Albanian industry, including the dispatch of Yugoslav experts, the supply of necessary materials and equipment, and the organization and operation of joint enterprises on the basis of parity and equal participation in administrative bodies (Articles II–IV) (*Gazeta Bashkimi*, nr. 623, 1946). Article V outlined the concrete obligations of the parties regarding the provision of means and resources required for the functioning of the joint enterprises, while Article VI regulated the legal, financial, and technical conditions to be specified through separate agreements. Article VII introduced annual arrangements for harmonizing the results of economic activities with the participation of both parties, thereby establishing a mechanism for monitoring and improving the performance of the joint enterprises. Furthermore, Article VIII set the duration of the agreement at thirty years, with the possibility of automatic renewal, while Article IX regulated its entry into force and the procedures for ratification (Articles VIII–IX) (Gazeta *Bashkimi*, nr.623, 1946).

This institutional and economic framework aimed to coordinate Albania's industrial, agricultural, and financial development with that of Yugoslavia, strengthening cooperation between the two states and establishing a model of regional economic integration in the postwar period. The implementation of these provisions underscored the significance of economic cooperation as an instrument for developing productive capacities and harmonizing economic plans between the two countries, based on the principles of parity and joint coordination (Articles II–IV) (Gazeta *Bashkimi* nr. 623, 1946).

4.1. The Agreement on the Establishment of an Albanian–Yugoslav Company for the Construction and Operation of Railways

Following the signing of the Economic Convention between the People's Republic of Albania and the Federal People's Republic of Yugoslavia on 1 July 1946, the establishment of a series of joint economic companies and institutions was decided, with the aim of strengthening economic cooperation between the two countries. These initiatives included the construction and operation of strategic infrastructure such as railways, the exploration and exploitation of mineral resources, the development of the electricity sector, and the creation of a joint financial institution, the Albanian–Yugoslav Bank.

The objectives of these joint companies were twofold. On the one hand, the Albanian side sought to support post-war reconstruction and economic modernization while preserving a degree of autonomy in strategic decision-making and utilizing national resources for the development of key economic sectors. On the other hand, the Yugoslav side viewed this cooperation primarily as a means of integrating the Albanian economy into Yugoslav industrial practices and standards, promoting the coordination of economic plans and the use of Yugoslav expertise and capital in economic projects (AMPJ, fondi 113, viti 1946).

According to Article I, an Albanian–Yugoslav company was established in the form of a joint-stock company, with the purpose of constructing and operating railway lines, as well as ensuring their maintenance. The company‘s headquarters were located in Tirana. Its governing body consisted of a six-member board, three of whom represented the government of the Federal People‘s Republic of Yugoslavia (FPRY). The chair of the board was Albanian, while the vice-chair was Yugoslav. The general director of the company was Yugoslav, whereas the deputy director was Albanian. In addition, the company had a supervisory committee composed of four members, two Albanian and two Yugoslav.

The initial share capital of the company amounted to 6,000,000 Albanian francs, to be paid within six months in equal shares by each contracting party. The company was entitled to purchase materials from the Albanian government, including land and necessary equipment, which were recognized as supplementary investments by the government of the People‘s Republic of Albania (PRA). In the event that the initial capital proved insufficient to meet the company‘s needs, it was authorized to obtain financial credit from the Albanian–Yugoslav Bank in Tirana (AMPJ, fondi 113, 1946).

The company‘s profits were to be distributed proportionally according to the founding capital and the supplementary investments contributed by each party. Preparatory works for the construction of the first railway line began on 1 January 1947. The company was exempt from all taxes, and the duration of its activity was set at thirty years.

4.2. The Agreement on the Establishment of the Albanian–Yugoslav Company for the Exploration and Exploitation of Mines

The administrative structure of this company was similar to that of the Albanian–Yugoslav Railway Company. Its primary objective was to conduct geological exploration to identify mineral reserves, as well as to exploit and process these resources. The company‘s capital amounted to 2,000,000 Albanian francs, contributed equally by the two contracting parties, with each providing 50 percent (AMPJ, fondi 117, viti 1946).

The Albanian government was entitled to receive 15 percent of the net profits from mineral extraction, while the remaining revenues were to be distributed between the two parties in proportion to their invested capital and supplementary contributions. The duration of the company‘s activity was identical to that of the railway company, and its operations commenced immediately after the signing of the agreement.

4.3. The Agreement on the Establishment of an Albanian–Yugoslav Electricity Company

The administrative structure of this company was similar to that of the Albanian–Yugoslav Mining Company, with the exception that the general director was a representative of the People‘s Republic of Albania, while the chair of the administrative board represented the Federal People‘s Republic of Yugoslavia. The company‘s main objective was to identify opportunities for electricity production and to carry out the necessary installations within the territory of the People‘s Republic of Albania.

The company‘s capital was set at 2,000,000 Albanian francs, to be paid in equal shares by the two contracting parties within a six-month period. The company was entitled to purchase existing power plants in Albania within the same period, as well as the materials and equipment required for its operation. The duration of the company‘s activity was the same as that of the Albanian–Yugoslav Railway Company.

Furthermore, through a separate protocol, the government of the Federal People‘s Republic of Yugoslavia committed itself to constructing an electric power plant in 1947 to meet the needs of the city of Tirana, with the construction costs recognized as supplementary investments by the Yugoslav side.

4.4. The Agreement on the Establishment of the Albanian–Yugoslav Bank

The Albanian–Yugoslav Bank was established as a joint-stock company, with its main headquarters in Tirana and a subsidiary office in Belgrade. The bank was to operate in accordance with the laws of the People‘s Republic of Albania, respecting Albanian jurisdiction in all operational matters.

The primary task of the bank was to support the development and strengthening of the Albanian–Yugoslav joint enterprises defined in the intergovernmental agreement of 1 July 1946, through the provision of short-term loans and credit for capital investments. The founding capital of the bank amounted to 6,000,000 Albanian francs, divided into 600 registered and non-transferable shares. Each contracting party—the People‘s Republic of Albania and the Federal People‘s Republic of Yugoslavia—contributed 50 percent of the capital within a six-month period (AMPJ, fondi 115, viti 1946, p. 1).

The governing body of the bank was an administrative board composed of six members appointed by the shareholders‘ assembly. The chair of the board represented the People‘s Republic of Albania, while the vice-chair represented the Federal People‘s Republic of Yugoslavia. The general director was a representative of the FPRY, while the deputy director represented the PRA. The Federal People‘s Republic of Yugoslavia acted as guarantor of the bank‘s obligations, with each party bearing responsibility for up to one-half of the total liabilities.

The bank was exempt from all direct taxes, and its profits were to be distributed proportionally according to the founding capital contributed. The duration of the bank‘s activity was set at thirty years, with the possibility of extension by five-year periods upon decision of the shareholders‘ assembly, allowing this procedure to be repeated one year prior to the expiration of each successive five-year term. In the event that the bank‘s mandate was not extended, the right to purchase the Yugoslav share of the capital would belong to the government of the People‘s Republic of Albania (AMPJ, Fund 115, 1946, p. 1).

This agreement entered into force immediately upon its signature, represented by Nako Spiru for the People's Republic of Albania and Nikola Petrović for the Federal People's Republic of Yugoslavia.

5. Conclusions

The analysis of Albanian–Yugoslav relations during the period 1945–1948 demonstrates that economic cooperation was employed as a key instrument for the penetration of Yugoslavia's strategic and economic interests into Albania. The agreements establishing joint enterprises in the sectors of railways, mining, electricity, and banking oriented Albania's economic development toward the requirements of the Yugoslav industrial plan, creating a form of structural dependency that placed the country in a weakened position subject to external control. This model of cooperation facilitated the export of Albanian natural resources and strategic products to Yugoslavia, while Albania itself primarily received outdated technology, consumer goods, and limited economic assistance. As a result, the Albanian economy was gradually weakened and reshaped along highly centralized lines, in which economic decision-making was guided by external priorities rather than by the needs of domestic development.

Within this framework, the economic centralization imposed by the Albanian Communist Party, supported by Yugoslav intervention, led to extensive nationalizations, the reduction of private property, and a shift in production priorities away from food security and internal development toward serving Belgrade's industrial interests. This strategy of economic centralization and coordination functioned not only as a political instrument for the consolidation of Enver Hoxha's power but also laid the foundations for long-term economic dependency and the weakening of the country's developmental capacities. Moreover, this process reveals that economic relations were not merely the outcome of ideological solidarity but constituted a political and strategic instrument through which Albania was integrated into Yugoslavia's orbit, using economic and institutional mechanisms to impose control over key sectors of production, trade, and finance. This dynamic placed Albania in a fragile position, severely limiting opportunities for autonomous development and exposing the country to sustained external pressure and influence, with consequences that would shape its trajectory throughout the second half of the twentieth century.

In conclusion, the period 1945–1948 represents a decisive phase in the Sovietization of the Albanian economy, in which Yugoslav penetration and domestic economic centralization served not only the political consolidation of the Albanian Communist Party but also the creation of a dependent, fragile economic model oriented primarily toward external interests. This model significantly constrained Albania's internal development and economic autonomy for decades to come.

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CULTURAL HERITAGE AS A DRIVING FORCE FOR SUSTAINABLE REGIONAL DEVELOPMENT: THE CASE OF THE AROMANIAN (VLACH) COMMUNITY IN KOLONJË

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Abstract
The cultural heritage of a region can act as a driving force for sustainable regional development. It includes both tangible and intangible aspects, reflecting the traditions, language, and practices of local and minority communities that have historically coexisted in harmony. This paper analyzes how the preservation of language, traditional crafts, music, and cultural practices can strengthen regional identity, social cohesion, and rural revitalization. Kolonjë, a mountainous area with a rich multicultural history shaped by centuries of interaction between Albanians, Aromanians, and other communities, faces challenges such as demographic decline, emigration, and cultural assimilation, which threaten social balance and intangible heritage. Based on historical, ethnographic, and sociocultural perspectives, this paper highlights how the Vlach (Aromanian) community's cultural assets can be leveraged for sustainable development. Initiatives such as cultural tourism, educational programs, festivals, and community-based projects can promote local identity while generating economic opportunities. Emphasizing the integration of cultural preservation with environmental sustainability, the paper argues that thoughtful regional policies can transform heritage into a resource for both social resilience and economic revitalization, ensuring that Kolonjë's unique cultural landscape is preserved for future generations.

Keywords: *cultural heritage, Aromanian community, Kolonjë, sustainable development, regional identity*

1. Background of Linguistic and Cultural Studies

Studies on linguistic and cultural relations in the Balkan area, particularly between Albanian and Romanian, have a well-established research tradition and constitute a fundamental pillar of Albanology and Romance studies. One of the most significant contributions in this field is that of Eqrem Çabej, who, in his analyses of the history of the Albanian language, emphasizes that structural similarities between Albanian and Romanian appear at various levels, including historical phonetics, morphology, and phraseology (Çabej, 1970). Through these parallels, Çabej (1994) suggests the existence of an early and continuous linguistic connection that has influenced the development of both languages.

In addition, international scholars such as Friedman (1994) have highlighted the importance of the relationship between language preservation and ethnic identity in minority communities. He argues that endangered languages, such as those of Aromanian communities, serve as carriers of collective memory and play a key role in strengthening social cohesion. This approach is essential for understanding dynamics such as intergenerational transmission of traditions, the role of the diaspora, and the impact of globalization on small ethnic communities.

Similarly, ethnographic studies conducted by Albanian institutions during the 20th century, such as the publication *Etnografia Shqiptare* by the Institute of History and Linguistics (1966), provide important documentation of local cultures, including Aromanian communities. These studies describe family rituals, social structures, the practice of song, and the role of traditions in rural life. Furthermore, lexicographical materials such as the *Dictionary of Contemporary Albanian* (IGJL, 2006) offer valuable information on word interweaving and cultural borrowings that have occurred over the centuries.

A significant contemporary contribution to research on the Aromanian community is also the work of Ballauri (2022), who in *Voskopoja – Encyclopedic Thesaurus* presents a comprehensive overview of the cultural, historical, and linguistic heritage of the Voskopoja area, a major centre of Aromanian/Vlach culture in the Balkans. This publication helps to understand the historical background and intercultural connections that characterize Aromanian communities in Albania.

On the other hand, the studies of Kahl (2002) offer a critical perspective on how Aromanian communities have been interpreted in academic discourse, analysing them as both stabilized ethnic minorities and historically nomadic groups. Kahl argues that their position between migration and settlement makes the Aromanian identity unique within the Balkan context, directly affecting the ways in which their language and traditions are preserved.

Although there is a considerable corpus of research on the southern regions of Albania, such as Voskopoja, Korça, Pogradec, and Vlora, literature on the Aromanian community in Kolonjë remains limited. This area, although rich in linguistic, folkloric, and ritual heritage, is much less documented compared to other historical Aromanian centres. Interviews with community members in Kolonjë, such as those with the *Shazo* couple, represent valuable primary sources that help fill this gap and document cultural practices at risk of disappearing.

In this sense, any paper that contributes to documenting the language, songs, customs, and collective memory of Aromanians in Kolonjë represents a valuable contribution to scientific research. It not only strengthens the ethnolinguistic database for this community but also helps create a new framework for interpreting the role of minority identities in the cultural and social development of rural regions.

2. Methodology and Case Study

In this paper, a qualitative approach was applied, which allows for the analysis of individual experiences and the ways in which members of the Aromanian community experience, preserve, and transmit their linguistic and cultural heritage. Qualitative methods are particularly suitable for research of this nature, as they offer the opportunity to document the internal processes of cultural identity, rituals, the emotional dimensions of memory, and the functioning of intergenerational family ties (Friedman, 1994; Kahl, 2002). Such approaches help create a deeper understanding of community dynamics, which often cannot be captured through quantitative methods.

2.1 Semi-structured interviews

The main method of data collection was semi-structured interviews conducted with an Aromanian married couple from the village of Borovë in Kolonjë: Pano Shazo (67 years old) and Athina Shazo (65 years old).

This form of interviewing was chosen because it combines predetermined questions with space for open discussion, allowing respondents to express themselves freely and provide narrative details from their life experiences. The interview covered the main research topics, such as:

- Family origins and early community movements,

- Profession and the role of work in preserving or losing cultural elements,
- Use of the Aromanian language at home and in the community,
- The importance of family and community celebrations,
- Customs and life-cycle rituals,
- Methods of intergenerational transmission of language and traditions.

Since the interviews were conducted in their family environment, this created a natural communication atmosphere, which contributed to obtaining authentic information and to the spontaneous reproduction of elements of everyday culture.

2.2 History of the Shazo Family

Pano Shazo was born in Sarandë, lived for a short period in Fier, and then settled with his family in the village of Borovë in Ersekë. His grandfather emigrated from Romania to Greece along with his four brothers. After his grandfather arrived in Albania, the border was established (before the war), and thus he was separated from his brothers, who remained in Greece. In Albania, he worked with caravans, following the same path as Pano's father (who worked in Gërmenj, another village near Borovë), while during the communist period he engaged in livestock farming. After completing the eighth grade, Pano helped his father due to the difficult economic situation and simultaneously learned the family trade.

In the 1990s, Pano, together with his wife and children, moved to Greece, where they lived and worked for about 4–5 years. After returning to the village, they started a private business. Pano and Athina are parents of two sons, who live in Thessaloniki, and one of them is a singer, preserving songs in the Aromanian (Vlach) language in his repertoire.

The names of the Shazo family members have been used with their full consent, as they were informed about the interview and the paper. They were made aware in advance of the purpose of the work, how the data would be used, and the publication of the materials, and they granted permission for the inclusion of their real names and testimonies in this paper.

2.3 Data collection and documentation

The data were collected through detailed notes and video recordings, conducted with the full consent of the interviewees. The use of audiovisual recordings was important for the accurate documentation of the spoken language, pronunciation, modes of interaction, and ritual performances, including songs, typical phrases, and elements of nonverbal communication. This material constitutes a valuable source for further linguistic and ethnographic analysis and aligns with recommended research practices for documenting minority cultures (IGJL, 1966). The collected materials, including the interviews with Pano and Athina Shazo, as well as evidence related to their son Thanas Shazo, a singer whose repertoire includes songs in Aromanian (Vlach) documented on YouTube, form the empirical basis for the paper's analysis and provide a clear overview of the active preservation of cultural heritage.

3. Findings and Discussion

3.1 Preservation of the Aromanian Language

The analysis of the use of the Aromanian language within the Shazo family shows that the language remains a key element of identity and social cohesion. Pano Shazo uses the Vlach language at home, during celebrations, and in rural activities, emphasizing its importance for connecting with traditions:

> *"I feel very good when I hear the Romanian songs; I understand every word, even though the language we speak is not exactly the same,"* he stated during the interview.

This example illustrates that intergenerational language transmission is not only a communication process but also a form of cultural resistance that preserves family history and a sense of belonging. These findings are consistent with the existing literature linking language preservation to the strengthening of ethnic identity and social solidarity within minority communities (Friedman, 1994; Kahl, 2002). The use of language in different contexts, such as festive activities and rural work, highlights the flexibility and vitality of language as an instrument of cultural heritage.

Celebrations and Wedding Rituals

The Shazo family continues to practice traditional celebrations such as Easter, Saint Mary‘s Day, and Christmas. Likewise, wedding rituals, including the *velența* and the apple-decorated flag, are still performed and symbolize values such as honour, warmth, and prosperity.

These ritual practices serve not only symbolic purposes but also social and economic functions. They strengthen identity and solidarity within the community while offering opportunities for cultural tourism and intercultural education, linking heritage with sustainable regional development. This finding aligns with the idea that cultural heritage can serve as a tool for social and economic solutions, creating tangible value for rural communities (Ballauri, 2022; Friedman, 1994).

3.2 Songs of Emigration and Emotional Identity

Athina Shazo preserves and performs the songs of emigration, which depict leaving one‘s homeland, longing, and nostalgia. These songs are often sung together with her father, creating intergenerational transmission of emotional histories and migratory experiences.

It is evident that these songs are not merely artistic expressions; they function as carriers of emotional identity and family history, reinforcing the connection between generations. The use of these songs in education and cultural tourism can become a concrete instrument for social and economic development, reflecting the idea of integrating cultural heritage into regional development policies (Friedman, 1994; Kahl, 2002).

The findings of this paper indicate that linguistic heritage, rituals, and traditional songs within the Shazo family are closely linked to identity, social cohesion, and opportunities for regional development. The preservation of spoken Aromanian, festive practices, and the performance of emigration songs demonstrate that minority communities can use culture as a driver of sustainable development, combining the maintenance of tradition with social and touristic innovation. This empirical case provides a clear example of how cultural heritage can be integrated into rural development strategies and intergenerational education, offering a model for future policies and research.

3.3. Cultural Heritage as a Source of Development

The data from the Shazo family show that cultural heritage can be transformed into a tangible resource for rural, economic, and social development. Cultural elements—Aromanian language, rituals, songs, and traditional crafts—not only serve to preserve identity but can also be used for activities that generate value for the community.

Specifically, the use of cultural heritage can be realized in several ways:

1. **Cultural tourism:** Organizing visits, craft demonstrations, traditional cooking, and musical performances can attract tourists and generate income for families and the community. For example, hospitality and traditional food at the Shazo family home can become authentic tourist attractions.
2. **Education and cultural courses:** Songs, rituals, and the Aromanian language can be used in workshops and courses for younger generations, preserving identity and raising awareness of cultural values.
3. **Handicrafts and traditional products:** Handmade products and traditional foods can be sold as local goods, creating economic opportunities and supporting rural business development.
4. **Integration into local and regional policies:** Cultural heritage can be incorporated into development strategies for tourism, local education, and cultural promotion, strengthening both community identity and the local economy.

Cultural heritage is not merely a historical memory; it is an active and practical resource that can be used for tourism, education, and economic development, linking the preservation of tradition with increased local opportunities and sustainable development in rural communities.

4. Conclusions

The cultural and material heritage of the Vlachs in Kolonjë is vibrant, actively preserved, and practiced by families, as exemplified by the Shazo family. The case of the Shazo family shows that the preservation of language and traditions strengthens local identity, social bonds, and creates opportunities for economic development and cultural tourism. Concrete elements of cultural heritage, such as language, songs, rituals, and crafts, can be used for tourism, educational, and economic activities, transforming heritage into an active development resource for the community. This specific example can also serve as a guide for further research and cultural policies. Integrating cultural heritage into regional policies can enhance existing resources, contribute to sustainable social and economic solutions, and highlight the unique values of the Vlach community.

Acknowledgements

This paper was conducted as part of a research initiative focused on documenting and preserving the cultural heritage of the Aromanian (Vlach) community in Kolonjë. Special thanks are extended to the members of the Shazo family for their willingness to participate and contribute to the study, as well as for sharing their knowledge and experiences.

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THE RENAISSANCE PEOPLE OF KOLONJA AND THEIR CONNECTION TO THEIR HOMELAND AS A HISTORICAL-CULTURAL SYSTEM

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Abstract
This paper examines the role of Kolonjë in the Albanian National Renaissance by interpreting the region as a coherent and selfsustaining historical–cultural system. Drawing on established historiography and qualitative textual analysis, the study argues that the emergence of Albanian-language education in Kolonjë was the product of coordinated action rather than isolated initiatives. Teachers, clergy, village elders, armed protectors, publishers, and diaspora communities formed an interconnected network that enabled the Albanian language to survive and flourish under conditions of political suppression and cultural pressure. Within this framework, figures such as Petro Nini Luarasi, Papa Kristo Negovani, the Qiriazi family, Kristo and Skënder Luarasi, Themistokli Gërmenji, Sali Butka, Shahin Kolonja, and Athanas Tashko exemplify how educational, religious, literary, military, and transnational forms of activism reinforced one another. Their combined efforts reveal Kolonjë not as a peripheral contributor to the Renaissance, but as an active generator of linguistic resilience, cultural cohesion, and civic selforganization. By highlighting the strategic role of community structures and diasporic support, the study shows how a small rural region could produce durable cultural transformations that shaped national identity. The findings offer broader insights into bottom-up language planning, the sociology of literacy, and the role of local agency in nation-building processes.

Keywords: *Albanian National Renaissance,Language Planning, Diaspora Networks,Cultural Resilience*

1. Introduction

The Albanian National Renaissance (Rilindja Kombëtare), spanning the midnineteenth to early twentieth century, fostered a profound transformation of linguistic, educational, and cultural consciousness among Albanians. While its major centers, including Shkodër, Korçë, and Bucharest, have been thoroughly documented, the region of Kolonjë represents a distinctive and under-examined case. Unlike areas where Albanian-language schooling developed sporadically or under the leadership of isolated individuals, Kolonjë built a stable, interconnected system grounded in village structures, diasporic support, clergy participation, and unified cultural commitment.

Starting in the last decades of the nineteenth century, Kolonjë developed what can be described as a historical–cultural network, composed of:

- a resilient school system,
- collaborative action among teachers, clergy, and local councils,
- a strong diasporic infrastructure,
- and communal mechanisms of linguistic protection.

This system emerged in a context of political suppression, linguistic prohibition, and competing religious-national agendas. The Greek Orthodox Patriarchate sought to maintain Greek as the language of liturgy and schooling, while Ottoman authorities periodically restricted Albanian-language instruction for fear of nationalist mobilization (Clayer, 2007). Yet Kolonjë resisted through collective agency, viewing the teaching of Albanian as both an ethical responsibility and a political assertion of cultural autonomy.
The villages of Luaras, Qytezë, Negovan, Starje, Odrie, and Gërmenj,functioned as localized cultural cells, each contributing to a broader educational ecosystem. Albanian instruction was carried out not in isolation, but through a dynamic synergy involving:

- teachers who disseminated literacy and linguistic consciousness,
- priests who reintroduced the Albanian language to religious life,
- diaspora activists who financed and supplied schools,
- and pleqësia (village councils) that coordinated defense, fundraising, and organization.

Through these interconnected nodes, Kolonjë produced a generation of intellectuals, educators, journalists, and patriots whose influence extended beyond the region to the national stage.
This paper examines the Renaissance system of Kolonjë through the contributions of its key figures: Petro Nini Luarasi, Kristo and Skënder Luarasi, Papa Kristo Negovani, the Qiriazi family, Themistokli Gërmenji, Sali Butka, Shahin Kolonja, and Athanas Tashko, and evaluates how their actions, embedded within a supportive communal structure, shaped Albania‘s cultural and linguistic modernization.

2. Research Questions

To analyze the Kolonjë phenomenon systematically, this study addresses three central research questions:

1. *How did the collaborative roles of teachers, clergy, diaspora networks, and village communities contribute to establishing and safeguarding Albanian-language education in Kolonjë during the National Renaissance?*
2. *In what ways did village-based cultural organization function as a mechanism of linguistic resilience and political agency within the broader Albanian Renaissance?*
3. *How did diaspora communities reinforce the sustainability of Kolonjë‘s cultural system through material support, textual circulation, and transnational advocacy?*

These questions allow us to examine Kolonjë not simply as a geographic location, but as a selfregulating cultural structure whose influence resonated throughout the Renaissance period.

3. Methodology

This study adopts a **qualitative, historical–cultural methodology** grounded in textual analysis, archival synthesis, and interpretive historiography. Because the contributions of Kolonjë to the Albanian National Renaissance span educational, religious, literary, and socio-political domains, a multidisciplinary approach is necessary to capture the systemic nature of the region‘s cultural production.

3.1. Corpus and Source Selection

The primary sources for this study consist of:

- Archival documents relating to Albanian schools, church correspondence, and diaspora society records from the late nineteenth and early twentieth century;
- Published memoirs, letters, and autobiographical accounts by key figures such as Petro Nini Luarasi, the Qiriazi family, and contemporaneous activists;
- Renaissance-era newspapers and periodicals, including *Drita*, *Liria*, *Kalendari Kombiar*, and diaspora publications;
- Academic monographs and peer-reviewed scholarship by established historians and linguists,such as Elsie (2010), Skendi (1967), Clayer (2007), Pipa (1990), and Pollo & Puto (1981).

Only official, academically verified sources and materials published by reputable institutions were used, ensuring historical reliability and scholarly rigor. Popular media, unverified digital content, and secondary online materials were deliberately excluded.

Analytical Framework

The analysis employs three intersecting frameworks:

1)Historical–Systemic Analysis

This approach interprets Kolonjë not as a collection of isolated actors but as a functional system, integrating:

- schooling networks,
- religious practices,
- community governance (pleqësia),
- diaspora channels,
- and armed protective structures.

2) Linguistic–Cultural Analysis. This dimension focuses on:

- the role of Albanian as a marker of identity,
- the circulation of primers, textbooks, and liturgical texts,
- the semiotics of language use in education and worship,
- and the discursive strategies in Renaissance publicistic writing.

The methodology draws on language ideology research and textual-linguistic interpretation, emphasizing how language and culture reinforce each other.

3) Literary–Intellectual Analysis

This component examines the written production of figures such as:

- Kristo and Skënder Luarasi,
- Shahin Kolonja,
- the Qiriazi family.

Their works are studied for narrative structure, rhetorical strategies, thematic continuity, and ideological framing, allowing the paper to trace how the Renaissance constructed a literary memory around national identity.

3. Findings

3.1. The Luarasi Family as Foundational Pillar of the Education System in Kolonjë

Among the intellectual families of the Albanian Renaissance, the Luarasi family stands out for its multi-generational commitment to linguistic and cultural activism. Their contribution spans education, publishing, scholarship, and political mobilization—giving Kolonjë a uniquely coherent cultural legacy.

3.1.1. Petro Nini Luarasi: Architect of the Schooling System

Petro Nini Luarasi (1865–1911), born in Luaras, played a central role in establishing Albanian-language education in southeastern Albania. Trained under Koto Hoxhi, one of the early proponents of Albanian literacy, he quickly emerged as an influential teacher and organizer of village schools (Elsie, 2010).

Between the mid-1880s and early 1900s, Luarasi opened or directed schools in Luaras, Bezhan, Qytezë, and surrounding villages, often working in secrecy. His educational strategies rested on several pillars:

1. Local Teacher Formation

Rather than relying on external teachers, who were vulnerable to Ottoman suspicion, Luarasi trained local youths as instructors. Through this model, he planted linguistic consciousness within the community itself, ensuring long-term sustainability.

2. Textual Circulation Networks

He coordinated the clandestine movement of Albanian primers and religious books from Sofia and Manastir, circumventing ecclesiastical and Ottoman censorship (Skendi, 1967).

3. Community Mobilization

The pleqësia collected funds, designated safe houses for classes, and organized night guards to protect school buildings from attacks. This ―school-defense system‖ represents one of the most organized communal responses in Renaissance Albania.

4. Integration into National Structures

Luarasi‘s participation in the Monastir Alphabet Congress (1908) underscores his prominence within the national movement. He championed the unification of the alphabet, recognizing its necessity for establishing a national educational system.

Beyond pedagogy, Luarasi was a cultural ideologue. His articles, speeches, and activism framed Albanian literacy as a moral imperative, shaping a political vocabulary of rights, dignity, and heritage that influenced contemporary and later intellectuals. His death in 1911, attributed by contemporaries to the psychological impact of persecution, solidified his status as martyr of the Albanian language (Jacques, 1995). His legacy remains foundational to the Kolonjë system.

3.1.2. Kristo Luarasi: Publisher of the Renaissance

Kristo P. Luarasi (1876–1934) expanded the work of Petro Nini from classrooms into the broader sphere of Albanian publishing. After emigrating to Sofia, he founded the ―Luarasi‖ printing house, which became instrumental in disseminating Albanian primers, political tracts, religious texts, and literary works.

His press published works by Sami Frashëri, Naim Frashëri, Mit`hat Frashëri (Lumo Skëndo), Papa Kristo Negovani, Mihal Grameno, and other Renaissance authors, connecting Kolonjë‘s

intellectual efforts to national and diaspora readerships. Kristo's editorial involvement in Drita and Kalendari Kombiar helped shape the public discourse surrounding Albanian education and linguistic unity.
His contribution to the Renaissance lies not only in the number of texts printed but in creating an infrastructure of print culture, enabling readers across the Balkans and diaspora communities to access Albanian-language materials.

3.1.3. Skënder Luarasi: Scholar, Translator, Cultural Mediator

Skënder Luarasi (1900–1982), educated in the United States, Austria, and Albania, inherited and expanded the intellectual mission of his father. A prolific translator and scholar, he authored critical monographs on Renaissance figures, including Petro Nini and the Qiriazi family, enriching the historiography of the movement (Pipa, 1990).
Skënder's translation of Shakespeare, Goethe, and Whitman introduced world literature to Albanian audiences, helping shape modern Albanian literary language. His academic work at the University of Tirana ensured that Renaissance ideals continued into mid-twentieth-century educational reforms.Together, Kristo and Skënder Luarasi ensured that the Kolonjë educational model evolved into a national cultural legacy, bridging grassroots activism with scholarly institutionalization.

3.2. Religious and Cultural Resistance: Papa Kristo Negovani

Papa Kristo Negovani (1875–1905), born in the village of Negovan, carried the Albanian Renaissance into the realm of religious life. After his involvement with Albanian nationalist circles in Romania, he returned to his village and introduced Albanian-language liturgy, an act that challenged the Greek Patriarchate's linguistic monopoly (Pollo & Puto, 1981).
Negovani's contributions include:
1. Establishing Albanian in Church Liturgy
By preaching and conducting the mass in Albanian, he broke centuries-old ecclesiastical practice, bringing sacred discourse in alignment with local linguistic identity.
2. Founding a Secret Albanian School
He taught more than one hundred children using Albanian books, many supplied through diaspora networks.
3. Becoming a Symbol of Martyrdom
His assassination in 1905 by Greek andart forces, following denunciation by Bishop Germanos Karavangelis, ignited collective outrage and strengthened the cultural resolve of Kolonjë and surrounding regions.
Negovani represents the religious dimension of the Kolonjë system, where language, faith, and national identity intersect. His life illustrates how clergy acted not only as spiritual leaders but also as linguistic reformers.

3.3. The Qiriazi Family: Educational Innovation and Female Literacy

The Qiriazi family: Gjerasim, Gjergj, Sevasti, and Parashqevi Qiriazi, although based in Korçë, exercised significant influence on the broader southeastern Albanian cultural environment.
1. Founding the First Albanian Girls' School (1891)
The school established by Sevasti and Parashqevi Qiriazi offered modern, Albanian-language education to women at a time when female literacy was rare in the Balkans (Jacques, 1995).

2. Producing Albanian Textbooks
Gjerasim and Gjergj Qiriazi authored instruction manuals and religious texts that circulated in Kolonjë through teachers trained or influenced by the Luarasi tradition.
3. Promoting Protestant-Influenced Civic Education
Their curriculum promoted moral development, literacy, and civic responsibility, aligning closely with Renaissance ideals (Frashëri, 2002).
4. Integrating Kolonjë into Regional Educational Reform
Through networks spanning Korçë, Manastir, and diaspora communities, the Qiriazi school influenced teachers, students, and activists who interacted with Kolonjë‘s educational sphere.
The Qiriazi family embodies the gendered and pedagogical expansion of Albanian literacy, reinforcing the cultural mission that Kolonjë represented.

3.4. Patriotic Protection: Themistokli Gërmenji and Sali Butka

The cultural and linguistic system of Kolonjë did not function in an abstract space—it operated in a contested political environment marked by ethnic competition, inter-communal violence, and restrictive state policies. In this context, the contributions of Themistokli Gërmenji and Sali Butka must be understood as essential components of the region‘s capacity to sustain its Renaissance identity.

3.4.1. Themistokli Gërmenji: Guardian of the Southern Albanian Schools

Although born in Korçë, Themistokli Gërmenji (1871–1917) maintained strong operational ties with Kolonjë and its network of schools. According to Skendi (1967), Gërmenji‘s armed bands regularly patrolled the borderlands between Korçë and Kolonjë, offering protection to teachers and villagers from hostile incursions. His strategic interventions came at a time when Greek andart groups and Ottoman authorities viewed Albanian-language schooling as subversive and often attempted to close schools or intimidate instructors.
Gërmenji‘s contribution is twofold:

1. Physical Protection of Schools: He ensured that Albanian schools established by Petro Nini Luarasi and other teachers could function without constant fear of violent disruption.
2. Symbolic Legitimacy: His presence served as a visible affirmation of the right to Albanian-language education, reinforcing local morale and cultural cohesion.

By linking military resistance with linguistic activism, Gërmenji represents the security dimension of the Kolonjë cultural system.

3.4.2. Sali Butka: The Cultural Defender

Sali Butka (1852–1939) played a parallel role in safeguarding Albanian identity in the southern highlands. Butka‘s armed formations, active from the late nineteenth century to the Balkan Wars, frequently intervened in rural areas to protect Albanian-speaking populations and ensure safe passage for books and instructional materials.
In Kolonjë specifically, Butka‘s bands:

- supported villages that faced threats from anti-Albanian forces,
- secured routes for teacher mobility and book circulation,
- and affirmed a regional consciousness in which language was inseparable from territorial and moral defense.

Through these actions, Butka reinforced the integrity of the Kolonjë Renaissance system, functioning as a protector of the linguistic and cultural boundaries that defined the region.

3.5. Shahin Kolonja and the Publicistic Dimension of the Renaissance

Shahin Kolonja (c. 1865–1919) represents the intellectualization and dissemination of the Kolonjë Renaissance beyond local borders. As editor of the Albanian newspaper *Drita* in Sofia and founder of *Liria*, Shahin Kolonja used journalism as a potent tool of political education and cultural mobilization.

Shahin's writings addressed:

- the persecution of Albanian teachers,
- ecclesiastical conflicts over liturgical language,
- diaspora activities in support of schools,
- the political situation in southern Albania.

His editorials helped create what Skendi (1967) calls an Albanian public sphere, where readers across the Balkans and diaspora could acquire a shared understanding of national goals.

Though his work had national reach, Shahin Kolonja often returned to the experiences of his native region. He framed Kolonjë as a microcosm of the Albanian struggle, highlighting its educational resilience, community organization, and linguistic patriotism. Through journalism, he elevated local events into national symbols, thereby contributing to the construction of a collective cultural memory.

As Elsie (2010) confirms, Shahin Kolonja was one of the principal mediators between local activism and national consciousness. His press operations linked communities and amplified the cultural achievements of Kolonjë, making him a crucial figure in the Renaissance's textual and ideological apparatus.

3.6. The Diaspora: Transnational Support for the Kolonjë System

Diaspora communities in the United States, Romania, Bulgaria, and Egypt played an indispensable role in sustaining Kolonjë's cultural and educational structures. For Albanians abroad, supporting the linguistic and national awakening of their homeland was both a moral duty and a political project.

Table 1: Diaspora Centers and Their Role in Supporting Kolonjë (Analytical Overview).

Diaspora Center	Key Organizations	Representative Figures	Main Contributions	Period
United States (Boston)	Early Orthodox and patriotic societies	Fan S. Noli, Athanas Tashko	Funding for teachers, books, school materials	1906–1915
Egypt (Cairo, Alexandria)	Albanian clubs and informal networks	Tashko family; émigré merchants	Financial support, remittances, educational materials	1880–1915
Romania (Bucharest)	Cultural societies (Drita, Dituria)	Renaissance activists	Publication of Albanian primers and liturgical books	1880–1910
Bulgaria (Sofia)	Press and cultural centers	Kristo Luarasi, Shahin Kolonja	Printing of Albanian texts; political journalism	1895–1915

Source:Author – Based on Elsie, 2010; Skendi, 1967; Noli, 1947

Table 2: Typology of Diaspora Support to Kolonjë

Type of Support	Description	Examples
Financial	Salaries for teachers, maintenance of schools	Funds sent by Boston and Cairo networks
Educational	Textual materials, primers, liturgical books	Publications printed in Sofia and Bucharest
Logistical	Safe transport routes, intermediary coordination	Manastir–Korçë–Kolonjë book channels
Political	Appeals to foreign missions, ecclesiastical advocacy	Diaspora letters urging Albanian language liturgy
Social	Support for families, students, widows of activists	Community remittances and organized assistance

Source:Author via processing of literature

Among the diaspora figures associated with Kolonjë, Athanas Tashko (1863–1915) is particularly notable. As documented by Noli (1947) and Skendi (1967), Tashko was active in Albanian circles in Egypt and later contributed to the organizational groundwork of the Albanian Orthodox movement in the United States. His fundraising initiatives supported schools and teachers in southeastern Albania, and his correspondence with leading Renaissance figures helped coordinate transnational advocacy.

3.7. Community Structure and Collective Agency: The Role of Pleqësia and Local Networks

The heart of the Kolonjë system was its communal infrastructure. Unlike other Albanian regions where educational initiatives often depended on individual benefactors or foreign missions, Kolonjë relied on a deeply rooted tradition of collective governance. Pleqësia (the council of village elders) served as the principal administrative and cultural unit. Its responsibilities included:

1. Opening and Funding Schools

Communal funds were raised to pay teachers, repair school buildings, and secure educational materials. In many villages, elders voluntarily taxed themselves to guarantee school operations (Frashëri, 2002).

2.Protection and Security

—Pleqësia— rotating night guards to prevent attacks from hostile forces. These practices reveal a strong sense of ownership: the school was not merely a building, but a symbol of communal identity.

3. Negotiation and Mediation

Elders negotiated with Ottoman authorities, local clerics, and foreign actors to defend the right to Albanian instruction. Their leadership prevented many closures and mitigated attempts to undermine the curriculum.

4. Family-Level Participation

Parents often hosted teachers in their homes, supplied food and clothing, or provided transport for books. This created a holistic ecosystem in which the school was embedded in the social life of the village.

From a linguistic perspective, this collective agency highlights how communities practice bottom-up language planning, turning Albanian into a shared cultural investment rather than an individual aspiration.

4. Conclusions

The cultural experience of Kolonjë during the Albanian National Renaissance illustrates how linguistic and national identity can emerge from the coordinated actions of multiple social actors rather than from isolated intellectual initiatives.

The region built a distinct historical–cultural system in which teachers, clergy, village elders, armed protectors, publishers, and diaspora networks jointly sustained Albanian-language education under conditions of repression and political volatility. The contributions of figures such as Petro Nini Luarasi, Papa Kristo Negovani, the Qiriazi family, Kristo and Skënder Luarasi, Themistokli Gërmenji, Sali Butka, Shahin Kolonja, and Athanas Tashko show how diverse forms of activism: pedagogical, religious, literary, military, and diasporic, reinforced one another.

The findings confirm that Kolonjë‘s Renaissance was not merely a regional chapter within Albanian history, but a self-regulating cultural ecosystem in which language was supported by communal practices, transnational ties, and generational continuity. This collective system offers a compelling example of bottom-up language planning and community, driven nationbuilding. It demonstrates that the preservation and institutionalization of a minority or suppressed language can succeed when educational, religious, social, and diasporic structures converge around a shared cultural purpose.

Beyond its historical impact, the story of Kolonjë also speaks to the human dimension of cultural survival. What unfolded there was not simply a coordinated system, but a lived experience shaped by families who opened their homes to teachers, elders who stood guard at night to protect a single classroom, priests who risked their lives to speak their people‘s language, and emigrants who sent back their hard, earned savings so that children in distant villages could learn to read.

These small acts of courage, quiet, persistent, and often anonymous, collectively forged one of the most resilient cultural movements in the Albanian Renaissance. In this sense, Kolonjë reminds us that national identity is not built only in congress halls or through famous texts, but also in the everyday choices of ordinary people who believe that their language, their memory, and their community are worth preserving.

5. Future Research Directions

Although this study has examined Kolonjë as a cohesive cultural system, several avenues merit further investigation:

1. Microhistorical village studies

More detailed archival or ethnographic research on individual villages (e.g., Luaras, Starje, Qytezë, Odrie, Butkë) could reveal the specific dynamics of school governance, literacy practices, and family participation.

2. Comparative regional analysis
Comparing Kolonjë with other Renaissance hubs, such as Korçë, Dibër, Shkodër, or Gjirokastër, could clarify whether similar systemic cultural patterns existed elsewhere or whether Kolonjë represents a unique model.

3. Diaspora communication networks
Further study of letter correspondence, financial remittances, and textual circulation between diaspora communities and Kolonjë would illuminate the transnational nature of Albanian-language activism.

4. Linguistic analysis of Renaissance texts
A corpus, based approach to primers, liturgical materials, and newspapers associated with Kolonjë could enrich understanding of early standardization tendencies and regional linguistic features.

5. Gendered dimensions of education
The influence of female literacy initiatives by the Qiriazi family (Sevasti Qiriazi & Parashqevi Qiriazi) on Kolonjë, direct or indirect, warrants deeper study within the history of Albanian women‘s education.Together, these directions would deepen our understanding of how regional cultural systems contribute to national identity formation and would situate Kolonjë more firmly within broader theories of linguistic nationalism and community, driven cultural resilience.

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DECENTRALIZATION AND LOCAL AUTONOMY THE ROLE OF LOCAL SELF-GOVERNMENT IN ENHANCING INSTITUTIONAL EFFICIENCY AND REGIONAL DEVELOPMENT

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Abstract
Decentralization and local autonomy constitute fundamental pillars of contemporary public governance reforms, particularly in countries undergoing democratic transition. This paper examines the role of local self-government in enhancing institutional efficiency and promoting regional development, drawing on theoretical approaches and European practices of local governance. By analyzing the main forms of decentralization administrative, fiscal, and political the study highlights the impact of transferring competencies and resources from the central to the local level on improving public service delivery, increasing citizen participation, and fostering balanced territorial development. The paper also addresses the structural challenges that constrain local autonomy, including financial dependence, administrative capacity limitations, and intergovernmental relations. The findings suggest that decentralization, when supported by stable institutional frameworks and effective accountability mechanisms, represents a key factor in strengthening local democracy and achieving sustainable regional development.

Keywords: *Local autonomy, Decentralization, Institutional efficiency, Local self-government, Regiona development.*

1. Introduction

Within the context of the political and institutional transformations of the twenty-first century, decentralization has emerged as one of the principal mechanisms for modernizing the state and enhancing the efficiency of public governance. Traditional models of centralized government have increasingly been called into question due to their inability to respond effectively to the diverse territorial, economic, and social needs that characterize contemporary societies. In this context, decentralization has been conceptualized as a tool for reorganizing intergovernmental relations and increasing institutional flexibility at the local and regional levels. (Rondinelli D. A., 1981)

Local self-government represents an essential dimension of this process, as it aims to bring decision-making closer to citizens and to create a public administration that is more accountable, transparent, and responsive to the needs of local communities. The principle of local autonomy is enshrined in the European Charter of Local Self-Government (1985), which considers local authorities a fundamental component of functional democracy and good governance in Europe. (Council of Europe, 1985)

The Charter emphasizes that local authorities should enjoy sufficient political, administrative, and financial autonomy to effectively perform their functions. However, decentralization should not be understood merely as a formal process of transferring competencies from the central to the local level, but rather as a profound institutional reform that requires developed administrative capacities, sustainable financial resources, and effective mechanisms of accountability and democratic oversight. As argued by Oates, decentralization is functional only when local authorities possess genuine fiscal autonomy and the capacity to adapt public policies to local needs. (Oates, 1972)

In the case of Albania, decentralization has constituted one of the core pillars of public administration reforms during the post-communist transition, particularly following the territorial-administrative reform of 2015. This reform aimed to consolidate local government units and strengthen the role of municipalities in the delivery of public services and local economic development. (Republic of Albania, 2014)

Although progress has been achieved in legal and institutional terms, practice has demonstrated that local government in Albania continues to face significant challenges, particularly with regard to fiscal autonomy, administrative capacity, and dependence on budgetary transfers from the central government. (Shah, Local Governance in Developing Countries, 2006)

Within this framework, analyzing the role of local self-government is of particular importance in understanding the extent to which decentralization has contributed to improving institutional efficiency and promoting regional development in Albania and beyond. Decentralization is defined as the process of transferring authority, responsibilities, and resources from the central government to lower levels of governance, with the aim of increasing administrative efficiency and improving the quality of public services. It is also viewed as an organizational mechanism designed to enhance the effectiveness of public administration by bringing decision-making closer to territorial units and local communities. (Ibrahim, 2024)

In this sense, decentralization serves as an instrument for restructuring intergovernmental relations and increasing institutional flexibility. Theoretical approaches to decentralization distinguish several main forms: administrative, fiscal, and political decentralization. Administrative decentralization refers to the transfer of executive functions and competencies to local authorities, while fiscal decentralization involves the financial autonomy of local government and the right to collect and manage public revenues. Political decentralization, on the other hand, consists of the democratic election of local authorities and increased citizen participation in decision-making processes. (Ibrahim, ―Decentralization and its Impact on Improving Public Services‖, 2024)

One of the most influential theories in this field is the theory of fiscal federalism, developed by Wallace E. Oates. According to this theory, local authorities are better positioned to provide public services because they possess more accurate information about the preferences and needs of local communities, enabling a more efficient allocation of public resources. Oates argues that fiscal decentralization enhances social welfare only when it is accompanied by genuine financial autonomy and fiscal responsibility at the local level. (E.Oates, 1972)

By contrast, Jean-Paul Faguet emphasizes the democratic dimension of decentralization, arguing that political decentralization increases citizen participation and strengthens democratic accountability by relocating decision-making closer to citizens and local institutions. (Faguet, 2012)

From this perspective, decentralization is not merely an administrative reform, but an instrument for strengthening local democracy and building more accountable and transparent institutions. In Albania, the decentralization process has undergone various historical developments closely linked to the political system and model of governance. During the socialist period (1945–1990), Albania was characterized by an extremely centralized state

model, in which local government functioned primarily as an administrative extension of the central government, without genuine political or financial autonomy. (Ministry of Finance and Economy, 2023)
Decision-making was concentrated at the central level, and local authorities played a predominantly executive role. Following the collapse of the communist regime in 1991 and the onset of democratic transition, decentralization became one of the primary objectives of institutional reforms. The Constitution of the Republic of Albania of 1998 enshrined the principle of local self-government and local autonomy, thereby establishing the constitutional foundation for a more decentralized model of governance. (Albania, 1998)
During the period 2000–2014, numerous legal and institutional reforms were undertaken to strengthen local government, although fiscal decentralization remained limited. A key milestone in the development of decentralization in Albania was the administrative-territorial reform of 2015, which significantly reduced the number of local government units and aimed to enhance the administrative capacities and institutional efficiency of municipalities. Studies indicate that, despite institutional progress, the financial autonomy of local government remains constrained, directly affecting the effectiveness of decentralization. (Guga, 2015-2020)

2. Local Autonomy and Institutional Efficiency

Local autonomy constitutes the functional foundation of local self-government and one of the central pillars of contemporary democracy. It refers to the right and the effective capacity of local authorities to regulate and manage a substantial share of public affairs under their responsibility, in the interest of the local community and within the legal framework of the state. According to the European Charter of Local Self-Government, local autonomy is closely linked to the principle of subsidiarity, whereby public responsibilities should be exercised by the authorities closest to citizens, except in cases where they cannot be effectively performed at the local level. (European Charter of Local Self-Government, 1985)
From a theoretical perspective, local autonomy encompasses several essential dimensions: political autonomy, which relates to the democratic election of local authorities; administrative autonomy, which consists of the right to organize local administration and implement public policies; and fiscal autonomy, which represents the capacity of local government to secure adequate financial resources and manage them independently. These dimensions are interdependent, and the absence of any one of them directly affects the institutional efficiency of local self-government. Institutional efficiency is closely linked to the capacity of institutions to plan, implement, and monitor public policies in a coherent and sustainable manner. World Bank studies indicate that decentralization, when accompanied by fiscal autonomy and robust accountability mechanisms, leads to improvements in the quality of public services, increased transparency, and more rational use of financial resources. (Bank, 2013)
Within this framework, local autonomy is regarded as a key factor in strengthening institutional capacities and increasing citizens‘ trust in public institutions. In the case of Albania, local autonomy is enshrined in the Constitution of 1998 and in the legislation governing local self-government, which recognizes the right of local units to exercise both delegated and own competencies. Despite this legal framework, the effective autonomy of local government has faced considerable limitations, particularly in fiscal terms. Albanian municipalities remain largely dependent on transfers from the central government, which restricts their ability to design long-term policies and to respond flexibly to local needs. The

administrative-territorial reform of 2015 aimed to enhance the institutional efficiency of local government through the consolidation of local units and the strengthening of administrative capacities. Although the reform has led to improvements in administrative management and the delivery of certain public services, the fiscal and decision-making autonomy of municipalities remains limited. This situation has had a direct impact on institutional efficiency, making local government more vulnerable to interventions from the central level. Local autonomy and institutional efficiency are therefore inseparable concepts in the analysis of local self-government. The Albanian case demonstrates that formal decentralization is insufficient in the absence of genuine financial and administrative autonomy. Consequently, strengthening local autonomy remains a fundamental prerequisite for enhancing institutional efficiency and consolidating local democracy. Regional development represents a strategic objective of public policy, particularly in the context of territorial disparities that characterize many contemporary states. Differences in economic, infrastructural, and social development between regions constitute a persistent challenge for public governance and require differentiated policies tailored to local specificities. In this context, local self-government plays a crucial role in identifying local potentials, mobilizing territorial resources, and designing development policies that reflect the real needs of communities. (Bank, Albania Local Government in Albania: Status Report 2024–2025, 2025)
Decentralization is addressed as a fundamental instrument for promoting regional development and increasing the effectiveness of public interventions. Three main forms of decentralization are commonly distinguished: administrative decentralization, which relates to the transfer of executive functions and responsibilities, fiscal decentralization, which consists of the allocation of financial resources and taxation competencies and political decentralization, which involves the democratic election of local authorities and the expansion of decision-making autonomy. The effective combination of these forms of decentralization is considered a key factor for sustainable regional development. Sustainable regional development requires a model of multilevel governance in which local authorities cooperate closely with central and regional institutions, as well as with other public and private actors. (Bank, How to Measure Decentralization: A Summary of the Global Literature Review on Decentralization Measurement, 2024)
In this sense, decentralization is viewed as an instrument for enhancing territorial cohesion and reducing socio-economic disparities by enabling local units to adapt development policies to the economic, demographic, and cultural characteristics of their respective territories. In Albania, regional development has historically been marked by pronounced disparities between urban and rural areas, as well as between central and peripheral regions. The decentralization process initiated after the 1990s and consolidated through the administrative-territorial reform of 2015 sought to strengthen the role of municipalities in local and regional economic development. Through this reform, local government units were granted expanded competencies in areas such as territorial planning, local economic development, and public service management. However, studies indicate that the impact of decentralization on regional development in Albania has been uneven. While some municipalities have successfully leveraged their autonomy to promote investment and improve local infrastructure, many others remain constrained by limited administrative capacities and financial dependence on the central budget. (Bank, Albania Local Government in Albania: Status Report 2024–2025, 2025)

This situation has contributed to the persistence of territorial disparities and has limited the effectiveness of regional development policies. Local self-government in Albania thus represents a potentially significant factor for regional development, but one that requires further institutional support, stronger fiscal decentralization, and improved intergovernmental cooperation mechanisms. Only under these conditions can decentralization become a genuine instrument for sustainable development and enhanced territorial cohesion. (Bank, Albania Local Government in Albania: Status Report 2024–2025, 2025)

In 2023, the Albanian government adopted the Intersectional Strategy for Decentralization and Local Governance 2023–2030, which serves as a guiding document for the development and modernization of local administration in the country. The strategy aims to increase local government autonomy, strengthen the administrative capacities of municipalities, and improve intersectional coordination by better integrating governance policies at the local level. (Ekonomisë, 2023)

A key aspect of the strategy is its focus on results-based governance, establishing concrete and measurable objectives for each level of local administration. The strategy emphasizes transparency and accountability toward citizens, introducing instruments for monitoring municipal performance and ensuring the efficient use of public resources. To support the implementation of the strategy, an Action Plan for 2023–2025 was adopted, containing a series of detailed measures and activities related to decentralization and capacity-building in local governance. The Action Plan specifies the roles and responsibilities of central and local institutions, implementation timelines, and immediate priorities for addressing key decentralization challenges, such as the shortage of trained staff in municipalities, financial disparities between regions, and limitations in inter-institutional coordination. Another important component of the strategy is the Indicators Passport, a monitoring tool that enables real-time assessment of reform implementation outcomes. This tool provides a standardized database for measuring progress in public service delivery, administrative efficiency, and citizen participation. Through the use of indicators, central and local authorities can make evidence-based decisions, identify challenges, and undertake corrective actions in a timely and coordinated manner. (Ekonomisë, Strategjia Ndërsektoriale për Decentralizimin dhe Qeverisjen Vendore 2023–2030, 2023)

The Intersectional Strategy for Decentralization and Local Governance 2023–2030 also has a political and legal dimension, aiming to harmonize local legislation with international standards of local governance and to promote a culture of administrative responsibility. Its implementation is expected to contribute to the economic and social development of local communities by improving service delivery and increasing transparency in decision-making processes. According to the analyses conducted during the drafting of the strategy, the main challenges of decentralization in Albania are related to the lack of sustainable financing, limited professional capacities within municipalities, and insufficient inter-institutional cooperation. The strategy and its accompanying documents, including the Action Plan and the Indicators Passport, seek to address these challenges through an integrated and sustainable approach. The approval of this strategy represents an important step toward modernizing local governance, improving public services for citizens, and strengthening accountability and transparency at the local level. Its successful implementation is expected to have a significant impact on Albania's economic and social development, contributing to the creation of a more efficient and equitable system of governance. Decentralization is a key process in the development of modern governance, aiming to transfer competencies and resources from central government to local authorities, thereby enhancing the autonomy of municipalities and cities. In Albania, this process has gained particular importance since the post-socialist transition, being regarded as one of the principal tools for improving public services, citizen participation, and the effectiveness of local administration. (Ekonomisë, Strategjia Ndërsektoriale për Decentralizimin dhe Qeverisjen Vendore 2023–2030, 2023)

The main challenges of decentralization in Albania include:

-Insufficient administrative capacity at the municipal level due to inadequately qualified staff and limited training opportunities.

-Financial disparities between regions and municipalities, which constrain the ability of local authorities to provide uniform standards of public services.

-Inadequate inter-institutional cooperation, often resulting in overlapping responsibilities and delays in the implementation of local projects.

The lack of effective monitoring and accountability mechanisms, making it difficult to assess the performance of local authorities. (Ekonomisë, Strategjia Ndërsektoriale për Decentralizimin dhe Qeverisjen Vendore 2023–2030, 2023)

Despite these challenges, decentralization remains of critical importance for Albania for several reasons. It enhances the efficiency of public services and promotes citizen participation in decision-making, thereby strengthening local democracy. It also creates opportunities for sustainable economic and social development by facilitating the management of local projects and public investments in line with the real needs of communities. Furthermore, decentralization contributes to the modernization of local administration, making it more transparent and accountable to citizens.

The European Union likewise requires candidate countries to ensure a strong system of local governance and citizen participation as part of compliance with democratic standards and human rights. A decentralized system of local governance helps Albania harmonize its legislation and administrative practices with European standards, thereby improving opportunities for economic development and access to EU funds. (Commission, 2022)

At the same time, decentralization represents an important instrument for addressing the challenges of globalization, as it enables local authorities to be more flexible and responsive to economic, technological, and social changes affecting communities. An efficient system of local governance can better manage the impacts of migration, labor market transformations, climate change, and growing demands for advanced public services, thereby enhancing Albania‘s resilience to global pressures. (Bank, Local Governance and Decentralization: Lessons for Albania, 2021)

3. Conclusions

Decentralization in Albania is a necessity for achieving more efficient, democratic, and citizen-oriented governance. Its implementation not only addresses local and structural challenges but is also closely linked to European integration and the ability to respond to global challenges. Without autonomous local governance, Albania cannot fully maximize its sustainable development potential nor fully benefit from integration and globalization processes. Decentralization has been a strategic priority in Albania since the transition period, aimed at strengthening local autonomy, enhancing administrative capacities, and improving public services at the local level. The Intersectional Strategy for Decentralization and Local Governance 2023–2030 clearly identifies the key challenges of this process and provides an integrated perspective for the upcoming period.

The challenges of decentralization are closely connected to the effects of globalization, including increased economic pressure and international competition, migration, climate change, and the growing demand for more advanced public services. At the same time, decentralization offers an effective tool to address these challenges by making local governance more flexible, accountable, and capable of adapting to the demands of a complex global environment.

The Intersectional Strategy 2023–2030 addresses this relationship by emphasizing the need for modern and integrated local governance that not only improves public services and citizen participation but also aligns with European standards and global challenges. The strategy highlights that local economic development and the empowerment of municipalities should be treated as an integrative process in which sectorial policies are combined to maximize effectiveness and social impact.

The importance of decentralization in the context of globalization lies in the ability of local authorities to:

- manage financial and human resources more effectively and in a decentralized manner.
- address challenges related to migration and rapid urbanization by providing services tailored to local communities.
- strengthen transparency, accountability, and citizen participation in decision-making, thereby creating a more resilient and sustainable local administration capable of withstanding global pressures.

In this context, decentralization should not be viewed merely as an administrative reform, but as a necessary strategic approach to sustainable national development, enabling Albania to harmonize governance practices with European standards, address the challenges of globalization, and maximize local development potential.

Decentralization in Albania represents one of the key pillars for consolidating local democracy and achieving sustainable regional development. It not only enhances the efficiency of public services and citizen participation, but also enables local authorities to adapt to globalization challenges by strengthening decision-making flexibility and administrative transparency. The implementation of the Intersectional Strategy for Decentralization and Local Governance 2023–2030, together with the Action Plan 2023–2025 and the Indicator Passport, establishes a solid foundation for financial autonomy, administrative capacity development, and inter-institutional coordination.

From the perspective of European integration, strong and decentralized local governance is a fundamental requirement for harmonizing legislation and administrative practices with European Union standards, improving the effective use of EU funds, and enhancing economic and social cohesion at the local level. Decentralization is therefore not merely an administrative reform, but a strategic instrument for building a more democratic, transparent, and European-integrated Albania, ensuring active citizen participation in decision-making and sustainable development of local communities.

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YOUTH PERCEPTIONS OF CLIMATE CHANGE: A CASE STUDY IN KORÇA COUNTRY

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Abstrakt
Ky studim synon të eksplorojë perceptimet, njohuritë dhe qëndrimet e të rinjve në Qarkun e Korçës lidhur me ndryshimet klimatike, si edhe nivelin e përfshirjes së tyre në veprime mjedisore. Duke përdorur një pyetësor të strukturuar, të dhënat u mblodhën nga një kampion i rastësishëm i të rinjve 15–24 vjeç që jetojnë si në zonat urbane, ashtu edhe në ato rurale të qarkut. Pyetësori përfshinte variabla demografikë, njohuritë mbi ndryshimet klimatike, perceptimet për pasojat e tyre dhe sjelljet që lidhen me mbrojtjen e mjedisit. Të dhënat u analizuan me programin SPSS, duke aplikuar statistika përshkruese dhe inferenciale. Studimi sugjeron nevojën për ndërhyrje edukative dhe fushata ndërgjegjësimi që nxisin përfshirjen aktive të të rinjve në adresimin e sfidave klimatike. Gjetjet mund të shërbejnë si bazë për politika lokale dhe projekte mjedisore të orientuara drejt të rinjve.

Fjalë kyçe: Perceptimi i të rinjve, ndryshimet klimatike, Qarku i Korçës, politika lokale, ndërgjegjësim.

Abstract
This study aims to explore the perceptions, knowledge, and attitudes of young people in Korçë County regarding climate change, as well as their level of engagement in environmental actions. Using a structured questionnaire, data were collected from a random sample of youth aged 15–24 living in both urban and rural areas of the county. The questionnaire included demographic variables, knowledge about climate change, perceptions of its consequences, and behaviors related to environmental protection. The data were analyzed using SPSS software, applying descriptive and inferential statistics. The study suggests the need for educational interventions and awareness campaigns that promote active youth involvement in addressing climate challenges. The findings may serve as a foundation for local policies and youth-oriented environmental projects.

Keywords: *youth perception, climate change, Korça County, local policies, awareness*

1. Introduction

Climate change represents a multidimensional global risk whose impacts span natural ecosystems, social systems, and public health (IPCC, 2023). Over recent decades, global mean temperature has risen at an unprecedented rate, while extreme climate events floods, droughts, and heatwaves have intensified markedly (NOAA, 2023; NASA, 2023). The Mediterranean Basin, identified by the IPCC as a climate ―hotspot,‖ experiences elevated risk due to the combination of above-average warming, declining precipitation, and degradation of water resources (IPCC, 2022).

Albania, situated within this sensitive zone, exhibits high structural vulnerabilities: reliance on hydropower, an agricultural sector exposed to climate variability, and limited risk-management infrastructure (World Bank, 2024; EEA, 2025). Approximately 95% of municipalities have experienced at least one climate-related extreme event over the past two decades (World Bank, 2024), and projections indicate that economic damages could reach up to 7% of GDP by 2050 in the absence of robust adaptation policies (World Bank, 2024; FAO, 2021).

In this context, the perceptions of young people are critical, as they constitute the demographic that will shape society‘s long-term readiness to address climate challenges (UNICEF, 2022; World Vision Albania, 2023). International literature suggests that youth often demonstrate strong environmental citizenship, yet face barriers to effective engagement including limited access to accurate information, constrained resources, and weak participatory structures (European Commission, 2023).

2. Literature review

Over the last decade, scholarship on climate perceptions has expanded substantially, emphasizing that societal responses to climate change depend on public awareness, risk perception, and willingness to act (IPCC, 2023; EEA, 2025). International studies show that the knowledge and perceptions of youth play a central role in shaping pro-environmental behavior and support for climate policies (European Commission, 2023; ESS, 2018).

Global surveys such as Eurobarometer and the European Social Survey indicate that youth are particularly sensitive to climate issues, often exhibiting higher concern and willingness to act compared to older cohorts (Eurobarometer, 2023; ESS, 2018). However, the literature also documents structural barriers limited institutional empowerment, restricted participation opportunities, and economic constraints that reduce the capacity of female and male respondents to undertake concrete climate actions (World Vision Albania, 2023; UNDP, 2022).

The Theory of Planned Behavior (Ajzen, 1991) is widely used to explain environmental attitudes and behaviors. It posits that behavioral intention depends on personal attitudes, subjective norms, and perceived behavioral control. Numerous climate-focused studies find this framework useful for explaining why youth respondents, despite high awareness, may not consistently translate attitudes into pro-environmental behavior (European Commission, 2023)

Studies in Albania indicate substantial interest among youth, but knowledge is often fragmented and reliant on unverified sources such as social media (UNICEF, 2022). Participation of young respondents in formal environmental decision-making remains limited, and environmental education is not fully integrated into formal curricula (FAO, 2021; World Vision Albania, 2023). These gaps justify local empirical studies to inform policy and program design.

3. Study Area

Korçë County in southeastern Albania provides a strategic context due to its climatic, economic, and demographic features. The cold-summer Mediterranean climate is characterized by dry, warm summers and cool winters, rendering the area highly sensitive to temperature fluctuations and precipitation variability. Agriculture one of the dominant economic sectorsis particularly vulnerable to droughts, shifts in growing seasons, and soil-moisture stress. The regional tourism sector is likewise sensitive to environmental quality and landscape management. These sectoral dependencies create strong incentives for local populations especially youth respondents to understand and engage with climate issues. Consequently, Korçë serves as an appropriate case study to analyze how climate change is perceived among young people and how these perceptions shape readiness for action.

4. Purpose of the Study

The main objective of this study is to analyze the perceptions of young people in Korçë County regarding climate change, to assess its impact on their daily lives, and to identify their level of awareness about the measures that should be undertaken to cope with climate-related effects. The study aims to understand not only the extent of their knowledge, but also the factors that influence risk perception and willingness to act.

Accordingly, the research questions guiding the analysis are:

1. **How well-informed are young people in Korçë County about climate change?**
2. **How do their perceptions vary by gender, place of residence, and employment status?**
3. **What strategies can be applied to increase the level of knowledge and awareness among young people regarding climate change?**

5. Methodology

This study employs a quantitative research design using an online structured questionnaire distributed from June 2024 to October 2025. The instrument contained 35 items organized into four thematic categories: socio-economic characteristics, climate knowledge, information and awareness, and perceptions of climate change and its impacts.

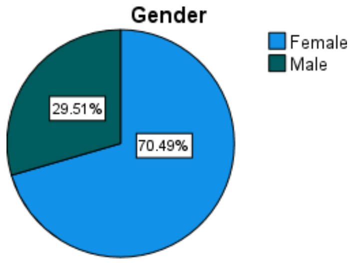
A total of N = 244 youth respondents aged 15–24 participated. The sample included participants from Korçë, Pogradec, Maliq, Devoll, Kolonjë, and Pustec, ensuring geographic coverage across urban and rural areas. Distribution through educational institutions and digital platforms promoted socio-economic and educational diversity.

Data were analyzed using **SPSS**, applying descriptive statistics, crosstab analyses, Chi-square tests for associations, and comparative analyses by gender, residence, and employment status. The inferential focus enabled identification of statistically significant relationships between demographic factors and climate perceptions.

6. Results and Discussion

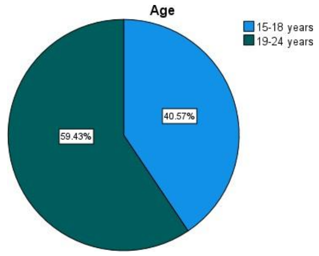
The gender distribution of participants (Fig. 1) is relatively balanced, though with a slight predominance of females. This distribution indicates that the survey succeeded in capturing a broad spectrum of the youth population, without a pronounced bias toward any single group. Such balance is important, as studies on climate perceptions suggest that attitudes and levels of concern may vary by gender. This distribution enhances the overall validity of the results and reduces the likelihood of gender-related bias in interpretation.

Figure1.Gender of respondent



Source:Statistic data

Figure 2.Ages of respondent



Source:Statistic data

Figure 2 shows that the majority of respondents belong to younger age groups (school-aged youth and students). The dominance of this age group is also consistent with the category —Current status,‖ where the vast majority identify as pupils or students. This data structure reflects the high level of interest among the younger generation in the topic of climate change. International studies consistently demonstrate that young people tend to be more aware of and more concerned about climate issues, and the graph supports this tendency.

The findings indicate a strong base of climate knowledge and clear alignment with the scientific consensus among youth in Korçë County. Specifically, 87 % of respondents state they clearly understand what climate change entails (51 % —strongly agree,‖ 36 % —agree‖), while only 6 % remain neutral and 7 % disagree. This pattern is reinforced by the fact that 89 % of youth recognize that global temperatures have changed compared to the previous decade (54 % —strongly agree,‖ 35 % —agree‖), with only 6 % neutral and 7% in disagreement. These results are consistent with international literature on high youth climate literacy and create solid premises for behavioral interventions and public policies to be effectively absorbed.

Regarding causal attribution, the overall pattern shows a clear orientation toward anthropogenic explanations: 56.2% consider humans the main driver of climate change, 37.3% attribute causes to a nature–human combination, while only 4.4% attribute them to nature and 4.4% choose —don‘t know.‖ This coherence with the scientific consensus becomes even more striking when analyzed by gender: among female respondents**,** 59.3% choose —human‖ and 33.8% —both,‖ with only 2.8% —nature‖ and 4.1% —don‘t know‖; whereas male respondents display greater variation and notably lower percentages in favor of anthropogenic causation. Statistical tests confirm the determining role of gender as an explanatory factor both for causal attribution ($\chi^2(3, N = 244) = 18.44$**,** $p = .002$**)** and for the level of concern ($\chi^2(1) = 15.252$**,** $p < .001$), suggesting the need for gender-sensitive communication and education strategies

Readiness for action appears high and stable across several dimensions. At the level of individual perception, 81% of youth believe that —each of us can reduce the effects of climate change‖ (42% —strongly agree,‖ 39% —agree‖), while only 7% disagree and 12% are neutral. At the household level, 67% express clear willingness to reduce energy consumption (26% —strongly agree,‖ 41% —agree‖), with 26% neutral and 7% opposed; meanwhile 60% support mandatory approaches to energy saving (21% —strongly agree,‖ 39% —agree‖), with 27% neutral and 13% opposed. These distributions imply a legitimizing window for energy-efficiency policies and behavior-oriented interventions, where social resistance is relatively low **(**7–13%**),** while the neutral segment (12–27%) represents the priority audience for explanatory communication with concrete local cases and tangible economic and health co-benefits.

As for the level of concern, the findings demonstrate a broad consensus: over 90% of the sample report being concerned about climate change. However, within this consensus, distinct profiles emerge: 95.9% of female respondents report concern versus 80.6% of male respondents, a difference of 15.3 percentage points and statistically significant; this is also reflected in the higher frequency of anthropogenic attribution among female respondents, whereas male respondents display a more heterogeneous distribution of responses. In the geographic dimension, rural respondents appear slightly more concerned (about 95%**)** than urban ones (about 88.3–88.9%**),** but statistical tests (Pearson p = 0.094; Fisher p = 0.108**;** Likelihood Ratio p = 0.084**)** show that these differences are not significant. The practical interpretation is that media exposure and a shared informational context have standardized risk perception across spatial differences. Regarding employment status, the reported contrast where the unemployed show 79.6% ―not concerned‖ and only 7.2% ―concerned,‖ while the employed show 20.4% ―concerned‖ and 2.2% ―not concerned‖ should be read with methodological caution, as the sample is dominated by pupils/students and the category ―unemployed‖ may overlap with ―in education,‖ creating potential distortions in how short-term priorities are perceived relative to long-term risks.

From a policy perspective, the profile of results signals a favorable space for designing structural and behavior-oriented measures. Support of 60% for mandatory energy-saving approaches and the 67% willingness to reduce household consumption create a social foundation for efficiency standards, energy audits in schools, and incentive–penalty schemes. At the same time, the 12–27% neutral segment requires targeted communication with local examples, simple cost benefit calculations, and youth co-creation of campaigns. Since gender emerges as a determining factor, programs should increase the participation of male youth through practical pathways (training for green jobs, male role models, community challenges with measurable outcomes). The lack of a significant urban/rural effect on concern suggests that channeling national messages through verified digital platforms can be highly effective, while fact-checking and content curation should be institutionalized in teaching practices and youth programs to reduce exposure to inaccuracies.

7. Conclusions

The study documents high levels of knowledge and broad acceptance of the anthropogenic origin of climate change among youth in Korçë County. With 87% reporting a clear understanding of the concept of climate change and 89% recognizing rising global temperatures, a strong basis is created for action-oriented educational and policy interventions. The consensus on causes 56.2% citing ―human‖ as the main driver and 37.3% ―both,‖ with only 4.4% ―nature‖ and 4.4% ―don't know‖ remains stable across employment and residence subgroups (with ranges of 55–70% favoring ―human‖), suggesting that the scientific narrative is widely internalized. Behaviorally, readiness is promising: 81% believe in the effectiveness of individual action, 67% are ready to reduce household energy consumption, and 60% support mandatory energy-saving measures; resistance at 7–13% indicates that barriers are not insurmountable, while the 12–27% neutral segment represents unused potential that can be activated through targeted communication and practical instruments.

Although concern is high at the sample level **(**over 90%**),** gender remains a determining factor: female respondents show significantly higher concern **(**95.9%**)** compared to male respondents **(**80.6%**),** as well as a more consolidated anthropogenic attribution, with statistically significant effects for both concern and causal attribution. This implies the need for gender-differentiated interventions to intensify the engagement of male youth**.** Meanwhile, urban–rural differences in concern (about 95% rural versus 88.3–88.9% urban) are not statistically significant, suggesting that risk perceptions have become relatively homogeneous at the county level, likely mediated by shared information channels. Overall, the results provide a clear platform for public policy and educational programming: high knowledge, consensus on causes, visible readiness for action, and a sizable neutral segment that can be mobilized through communication and participation instruments. This framework should be accompanied by concrete energy-efficiency measures**,** youth-led community projects**,** and institutional mechanisms for youth participation in policymaking, so that high awareness translates into sustainable behaviors and measurable impact in climate mitigation and adaptation.

8. Recommendations

To increase climate awareness and empower youth engagement in Korçë County, we recommend the systematic integration of climate education into national curricula through interdisciplinary approaches and project-/experience-based learning (environmental labs, community monitoring, fieldwork), as evidence shows this improves competencies and fosters durable pro-environmental behaviors (IPCC, 2023; EEA, 2025). In parallel, a reliable public-communication infrastructure is needed to counter misinformation on social media via verified content, educational digital platforms, and co-created messaging with youth and local influencers turning high social-media exposure into an educational asset (UNICEF, 2022; European Commission, 2023).

To increase policy impact, durable participatory mechanisms should be established, including youth environmental councils at municipalities, student involvement in public consultations, and participatory budgeting for climate initiatives, which enhance the legitimacy and implementability of decisions (UNDP, 2022; World Bank, 2024).

At a practical level, we recommend a portfolio of youth-led programs reforestation, recycling and circular-economy initiatives in schools, energy-efficiency upgrades in educational buildings, and citizen stations for air and water-quality monitoring that connect knowledge with action and create transferable skills for the green labor market (FAO, 2021; EEA, 2025).

Finally, sustained cross-sector collaboration is required among schools and universities, civil-society organizations, local government units, and civil-protection agencies, supported by dedicated financing, teacher training, and periodic outcome evaluation, so that interventions are measurable, scalable, and socially equitable (World Bank, 2024; IPCC, 2022).

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THE CIVIL WAR IN ALBANIA AND ITS REFLECTION IN PRE-UNIVERSITY EDUCATION TEXTBOOKS

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Abstract
This paper examines how the concept of —civil war‖ is defined and presented in pre-university history education in Albania, with particular attention to textbooks and officially approved curricula. As a term with significant political and historiographical implications, —civil war‖ shapes how students understand internal conflict, responsibility, and historical interpretation. Its treatment within school materials therefore plays an important role in the formation of historical consciousness.
The study employs qualitative document analysis of history textbooks for grades VIII, IX, and XI, alongside national curricular frameworks. It analyses the definition of the concept, how the Second World War period in Albania is interpreted through the concept of civil war, and the pedagogical approaches used across different educational levels. Special attention is given to terminology, narrative framing, and conceptual consistency.
The findings reveal variations in terminology and didactic presentation, as well as a lack of consistent conceptual standardization. In several instances, internal conflict is described through broader or indirect categories rather than clearly defined as civil war. This ambiguity reflects ongoing historiographical tensions and raises questions about conceptual clarity in history education.
The paper argues for a more coherent and academically grounded approach to the presentation of civil war in textbooks to strengthen analytical precision and critical historical understanding.

Keywords: *civil war, World War II, Albania, pre-university education, textbooks.*

Introduction

The Second World War in Albania (1939–1945) represents one of the most politically and historiographical contested periods in the country‘s twentieth-century history. Following the occupation by Fascist Italy in 1939 and subsequently by Nazi Germany in 1943, Albania experienced not only armed resistance against foreign occupiers but also profound internal political confrontation. During the years 1943–1945, this confrontation culminated in armed clashes between two principal political forces: the communist movement led by the ***Albanian Communist Party (ACP)*** and the nationalist movements, primarily the ***Balli Kombëtar*** and the ***Legality*** movement (Legaliteti). The nature of this conflict remains a subject of ongoing debate. For several decades, Albanian historiography was shaped by the official narrative of the communist regime, which framed the Second World War exclusively as a national liberation struggle and either denied or minimized the existence of internal civil conflict.
Only after the political transformations of the 1990s and the opening of state archives scholars begin to reassess this period through alternative interpretative frameworks. These developments enabled more critical analyses of the armed confrontation between communist and nationalist forces, with some researchers conceptualizing the events of 1943–1944 as constituting a civil war. Despite this historiographical shift, the terminology and interpretative framing of the conflict remain uneven, particularly within educational materials. In this

context, history textbooks assume particular importance. As foundational instruments in the transmission of historical knowledge, they play a decisive role in shaping younger generations' understanding of national history. The representation of the conflict of 1943–1945 within pre-university textbooks reflects not only historical evidence but also broader ideological legacies, pedagogical priorities, and the interpretative choices of authors and publishing houses.
This study adopts a qualitative research design combining content analysis with a comparative approach. The primary corpus consists of widely used pre-university history textbooks published by major Albanian publishing houses. The analysis examines narrative structure, terminological usage, emphasis and omission, and authorial positioning regarding the concept of civil war. Through systematic comparison across textbooks, the study identifies patterns of convergence and divergence in the treatment of this contested period. By situating textbook narratives within the broader historiographical and political context, the paper seeks to provide a comprehensive overview of how the civil conflict in Albania is currently represented in school education. Beyond clarifying terminological differences, the study aims to assess how these representations contribute to students' historical understanding and influence the development of critical reflection on a still controversial chapter of Albania's twentieth-century past.

1. An overview of the civil war in Albania

In order to approach the Albanian case analytically, it is first necessary to clarify what is meant by the term civil war. In historical scholarship, the term *civil war* has been defined not merely as internal violence, but as a profound rupture within a political community. Charles Tilly (2003) describes civil war as sustained and organized armed struggle between actors operating within the same state, stressing that such conflicts are fundamentally about power and political authority. Stathis N. Kalyvas (2006) similarly underlines that civil wars take place between parties that initially share the same sovereign framework, meaning that the conflict represents a breakdown of common political order rather than a war against an external enemy. Political scientists such as James Fearon and David Laitin (2003) add that civil wars involve organized groups engaging in prolonged combat that produces significant casualties, thereby distinguishing them from sporadic unrest or isolated clashes. Michael W. Doyle and Nicholas Sambanis (2006) further emphasize that civil war entails a challenge to state sovereignty from within, often emerging in contexts where competing groups seek control over the future direction of political authority. From a historian's perspective, however, the term carries more than analytical weight. As David Armitage (2017) has shown, societies are often reluctant to describe internal conflicts as civil wars, because the label itself implies division within the nation and raises difficult questions about legitimacy, responsibility, and collective memory. For this reason, whether a conflict is called a ―civil war‖ is not simply a matter of terminology but reflects deeper interpretative choices. Taken together, these perspectives suggest that civil war involves sustained armed confrontation between organized groups belonging to the same political community, driven by competing visions of political order, and accompanied by a breakdown of shared authority. This framework offers a useful point of reference for examining the Albanian conflict of 1943–1945.
The Albanian Civil War remains one of the most controversial questions in twentieth-century Albanian historiography, marked by enduring political and ideological divisions. The conflict

unfolded during the Second World War, under conditions of successive Italian and German occupation. This dual occupation created a complex political environment in which resistance to foreign forces developed alongside internal rivalries among Albanian political actors. The principal confrontation involved the Albanian Communist Party (ACP) and the National Liberation Front on one side, and nationalist forces, primarily the Balli Kombëtar and the Legality movement (Legaliteti), together with other local groups, on the other. In contemporary documentation and in part of the post-1990 historiography, this internal armed confrontation has been described as a civil war. The roots of the conflict can be traced to the political developments of 1939–1943, following the Italian occupation of Albania. Resistance initially emerged in fragmented guerrilla formations (Fischer, 2000, p. 145) before becoming more organized through the establishment of the Albanian Communist Party and the National Liberation Front (Gjeçovi, 2014, p. 66), alongside the consolidation of nationalist organizations. The Mukje Agreement of August 1943 represented the most significant attempt at cooperation between the two principal political currents (Dezhgiu, 2015, p. 307), briefly fostering the prospect of a unified front against the occupiers. However, the decisions of the Labinot Conference in September 1943, which effectively annulled the agreement and declared open hostility toward the Balli Kombëtar, marked a decisive turning point that led to the escalation of internal armed conflict (Butka, 2016, p. 435).
The outbreak of open hostilities on 1 October 1943 (Butka, 2016, p. 435) initially concentrated in southern Albania, where the Balli Kombëtar maintained strong positions. The clashes subsequently extended to central and northern regions, involving Legality and several independent nationalist groups. Contemporary documentation indicates that these confrontations consisted of successive military operations and armed attacks, frequently resulting in significant Albanian casualties. Episodes such as the operations of the First Communist Brigade against nationalist forces in Mallakastër (Academy of Albanological Studies, 2021, p. 145), the attacks in Dukat (Butka, 2016, pp. 443–444), and numerous other engagements across the country illustrate both the intensity of the conflict and the definitive breakdown of political cooperation. An important dimension supporting the characterization of the conflict as civil lies in the continuation of armed actions after the capitulation of Italy and even following the withdrawal of German forces from Albanian territory. The Battle of Tamara in January 1945, occurring at a time when the occupying forces were no longer present, is frequently cited as evidence that the confrontation had evolved beyond anti-occupation resistance and had assumed the characteristics of an internal war for political control (Butka, 2016, p. 451). British Special Operations Executive (SOE) reports further reinforce this interpretation, noting that a significant portion of the weapons supplied to communist forces was used against domestic political rivals rather than against German troops (Kapri, 2017, p. 207).
From a historiographical perspective, the classification of these events remains contested. Authors such as Kristo Frashëri, Xhelal Gjeçovi (Gjeçovi, 2014, p. 190), and Paskal Milo (Milo, 2010, pp. 369–370) interpret the conflict primarily as an inseparable component of the broader war against the occupiers, thereby minimizing its internal dimension. In contrast, scholars including Uran Butka (Butka, 2016, p. 433), Erald Kapri (Kapri, 2017, p. 207), and foreign historians such as Bernd Fischer (Fischer, 2000, p. 261) argue that the events of 1943–1945 exhibit the defining features of a civil war: sustained armed confrontation between Albanians, a struggle for political power, pronounced ideological polarization, and military actions extending beyond the framework of resistance to foreign occupation. At the same

time, the Albanian civil war cannot be reduced solely to its military dimension. It was also a political and ideological struggle in which propaganda played a central role. The Albanian Communist Party portrayed the Balli Kombëtar and Legality as collaborators with the occupiers, thereby seeking to delegitimize these forces and consolidate its own political authority. After 1944, this narrative became institutionalized within the official historiography of the communist regime, shaping the writing of history for decades and leaving a durable legacy of interpretative asymmetry.

2. The history subject programme within the national curriculum framework

The organization of education in Albania follows a structured system of learning levels. Grades 6 and 7 form part of Level III. At this stage, the history curriculum focuses primarily on world civilizations in the ancient, medieval, and modern periods, situating the history of the Albanians within these broader civilizational frameworks. The intention is to enable students to understand past events and ways of life, to recognize their connection to the present and the future, and to grasp the interdependence among civilizations (Ministry of Education and Sports & Institute for the Development of Education, 2014, p. 30). Since the present study addresses contemporary history, the textbooks of these grades fall outside the scope of analysis.

Grades 8 and 9 belong to Level IV of learning and mark a more focused engagement with national and contemporary themes. During this stage, lower secondary history education emphasizes both the history of the Albanians and the contemporary history of world civilizations. In Grade 8, students study contemporary developments in global history. In Grade 9, the subject ―History of the Albanians‖ presents a comprehensive overview of Albanian history, spanning from the prehistoric period to the present day. The Grade 9 curriculum is explicitly designed to familiarize students with the historical roots of their country. It seeks to develop understanding of the structures and dynamics that have shaped Albanian society over time. Students are encouraged to analyze significant historical events and personalities that influenced political, economic, social, and cultural developments in different periods. The program also highlights the interaction between Albanian history and broader regional and international contexts. By doing so, it aims to help students interpret contemporary realities through a critical lens, connecting past developments with present circumstances and future perspectives (Ministry of Education, Sports and Youth & Pre-University Education Quality Assurance Agency, 2019, pp. 28–29).

Upper secondary education, comprising Grades 10–12, constitutes Level V. According to the national curriculum for History, Grade 10 focuses on ―History of World Civilizations.‖ This program introduces students to major civilizational models from antiquity through the medieval, modern, and contemporary periods. Through comparative analysis, students examine stages of societal development, including economic organization, political structures, material life, cultural expressions, and spiritual dimensions. The aim is to foster an understanding of continuity and transformation across historical epochs and to trace the connections between successive civilizations. In Grade 11, the program ―History of the Albanians‖ revisits national history in a more structured and analytical manner. It addresses various aspects of social life, including state formation, legal systems, economic development, social organization, material and spiritual culture, and everyday life. The curriculum seeks to maintain a balanced approach among these dimensions while covering the trajectory of Albanian history from prehistory to the present. Through this framework, students examine the processes that shaped Albanian society, analyze key historical figures and events, and assess the reciprocal influences between Albanian developments and those of neighboring regions and beyond. The program further emphasizes critical engagement with contemporary issues through historical understanding (MES & IED, 2014, p. 27).

A review of the structure and stated objectives of the History programs indicates that the curriculum is designed not only to transmit factual knowledge but also to cultivate analytical and critical thinking skills. Within this educational framework, certain historical events require especially careful and balanced treatment. Among them are complex and politically sensitive topics such as the Albanian Civil War, whose interpretation directly affects students' understanding of national history, political legitimacy, and collective memory.

Lower Secondary Education

"Albas" Publishing House

The publishing house ―Albas‖ publishes school textbooks in Albania and follows the national curriculum and teaching program for the subject of History. The textbook *History 8* (2017), published by ―Albas,‖ does not directly address the history of Albania, as its primary focus is on world history. Nevertheless, one of the teaching units provides information concerning the situation in the Balkans during the Second World War. Specifically, in teaching topic 3, ―Military Operations in the Balkans‖ (pp. 52–54), the following passage appears: ―*The anti-fascist movement was strong in Yugoslavia, Greece and Albania. The communists were placed at the head of the popular fronts. In Yugoslavia the front was led by Josif Broz Tito and in Albania by Enver Hoxha. The communists, in addition to the war for liberation, sought to seize power after the war. This led to division and the outbreak of civil war (fratricidal) between nationalists and communist forces*‖ (Dërguti & Treska, 2017, p. 53). This excerpt indicates that civil war during the years of the Second World War is presented as a phenomenon affecting several Balkan countries, including Albania.

In the textbook *History 9* (2018), also published by ―Albas,‖ the period of the Second World War in Albania and in Albanian-inhabited territories is addressed through five teaching topics:

1. Albania under Italian occupation (1939–1943);
2. Albanian resistance to the Italian occupation (1939–1943);
3. Albania under German occupation (September 1943–November 1944);
4. Kosovo and the Cham region during the Second World War;
5. The end of the Second World War in Albania and its consequences (Dërguti et al., 2018, pp. 120–134).

Within teaching topic 3, ―Albania under German occupation (September 1943–November 1944),‖ page 127, under the section ―The attitude of political forces in Albania towards the German occupation,‖ the following passage is stated: ―*Meanwhile, the Albanian political forces also began to think about power after the war. The AKP, taking advantage of the fact that some of the personalities of the National Front participated in the administration set up by the German occupiers, in October 1943 ordered its forces to strike them as collaborationists. This led to an armed clash between them, that is, to a civil war waged alongside the liberation war*‖ (Dërguti et al., 2018, p. 127). This passage clearly demonstrates that the term ―civil war‖ is explicitly employed and accepted to describe the armed conflict between Albanian political forces, rather than presenting the confrontation solely as a war against the occupier.

"Ideart" Publishing House

―Ideart‖ is a publishing house that produces school textbooks used in Albanian pre-university education. In accordance with the national curriculum for History, the textbook *History 8* (2017), published by ―Ideart,‖ does not address the history of Albania but focuses instead on contemporary world history. For this reason, it is not central to the present analysis. Nevertheless, it is noteworthy that this publication maintains general consistency in the presentation of historical developments. A significant difference, however, lies in the fact that the term ―civil war‖ is not used in reference to any of the Balkan countries, unlike the approach adopted in the ―Albas‖ textbook. In this case, the emphasis remains exclusively on the liberation character of the war in the Balkans (Filo & Thanati, 2017, pp. 60–61). In line with the curriculum and teaching program for the subject of History, the textbook *History 9* (2018) published by ―Ideart‖ addresses the history of Albania. The period of the Second World War is presented through four teaching topics:

1. Albania under the occupation of Fascist Italy (April 1939–September 1943);
2. Albanian political resistance (1941–1943);
3. Albania under German occupation (September 1943–November 1944);
4. The end of the Second World War in Albania and its consequences (Filo et al., 2018, pp. 95–101).

In teaching topic 3, ―Albania under German occupation (September 1943–November 1944),‖ page 99, under the section ―The position of political forces towards the German occupier,‖ the following excerpt appears: ―*The position of the National Front was determined by the position of the Communist Party, which saw the National Front as an obstacle to the establishment of the communist regime after the liberation of the country. The Central Committee of the National Front, after once again calling for an agreement, decided to respond with weapons to the war declared by the Communist Party. Thus, there were battles in Priska, Dukat, Kukës*‖ (Filo et al., 2018, p. 99). From this passage, it is evident that while the armed confrontation between the political forces is acknowledged, the term ―civil war‖ is not used to characterize this conflict. At the same time, the text does not deny the existence of internal clashes, nor does it present them exclusively as part of the war against the occupier.

The comparative analysis of the textbooks published by ―Albas‖ and ―Ideart‖ reveals distinct approaches to the presentation of civil war during the Second World War. In the case of ―Albas,‖ both *History 8* and *History 9* explicitly employ the term ―civil war,‖ recognizing it as an armed conflict between Albanian political forces that unfolded alongside the liberation struggle. In *History 8*, this phenomenon is situated within the broader Balkan context, while in *History 9* it is specifically framed in relation to the confrontation between the Communist Party and the National Front. By contrast, the ―Ideart‖ textbooks avoid the explicit use of the term ―civil war.‖ In *History 8*, only the liberation character of the Balkan conflicts is emphasized. In *History 9*, although the armed confrontation between Albanian political forces is described, it is not labeled as a civil war. Consequently, while ―Albas‖ openly acknowledges the existence of a civil war in Albania, ―Ideart‖ presents the same conflict descriptively but refrains from naming it as such.

Higher Secondary Education

“Filara” Publishing House

The publishing house ―Filara‖ is one of the publishing houses engaged in the production of school textbooks in Albania, covering both lower and upper secondary education. In accordance with the curriculum and teaching program for the subject of History in Grade 11, which focuses on the ―History of the Albanians,‖ the period of the Second World War in Albania is addressed in five teaching topics (2022 edition), spanning the period from the Italian occupation to the complete liberation of the country. These topics are:

1. The Italian occupation of Albania;
2. The resistance of the Albanians against the Italian invaders;
3. Albania under the German occupation;
4. The resistance of the Albanians against the German invaders;
5. The fight for the liberation of the country. The consequences of the Second World War for Albania (Nathanaili et al., 2022, pp. 126–140).

Among these topics, the confrontation between communist and nationalist forces is addressed only in teaching topic 4, ―The Resistance of Albanians against the German Invaders.‖ However, the term ―civil war‖ is not employed. To illustrate this, the following excerpt from page 135, under the section ―Political and military developments in the winter of 1943–1944,‖ may be cited: ―*Likewise, Mithat Frashëri, on November 7, 1943, issued a circular to cease hostilities against the German invaders. After once again appealing to the AKP, which had taken over the leadership of the FNÇI, Mithat Frashëri decided to respond with weapons to its armed attacks. The conflict between opposing political forces had its own characteristics, in different areas and provinces of the country, reaching even massacres*‖ (Nathanaili et al., 2022, p. 135). This formulation acknowledges the existence of armed confrontation between political forces but refrains from explicitly categorizing it as a civil war.

“Albas” Publishing House

At the upper secondary level, the textbooks published by ―Albas‖ provide further insight into the treatment of this period. In the textbook *History 11* (2017), the period of the Second World War is presented through four teaching topics:

1. The Italian occupation of Albania;
2. The resistance of Albanians against the Italian invaders;
3. The German occupation and the Albanian resistance in the period September 1943–November 1944;
4. The war for the liberation of the country (May–November 1944) and its results (Dërguti et al., 2017, pp. 121–132).

Within teaching topic 3, ―The German occupation and the Albanian resistance in the period September 1943–November 1944,‖ page 128 includes the following passage: ―*At the same time, the Albanian political forces also began to think about power after the war. Enver Hoxha, on October 1, 1943, sent a letter to all the regional committees of the AKP. In it, the Balli Kombëtar was considered a collaborationist organization and as such, it had to be fought. This led to an armed clash between the two wings of Albanian politics, that is, in a civil war, which took place alongside the liberation war*‖ (Dërguti et al., 2017, p. 128). In this case, the textbook explicitly recognizes and accepts the concept of civil war in Albania during the Second World War. At the same time, the discussion remains concise and does not elaborate extensively on the broader scope or consequences of the internal conflict.

"Ideart" Publishing House
The upper secondary textbook published by ―Ideart‖ offers further perspective on this issue. In the textbook *History 11*, the period of the Second World War in Albania is divided into four themes:
1. Albania under the occupation of Fascist Italy (April 1939–September 1943);
2. Albanian political platform (1941–1943);
3. Albania under the German occupation (September 1943–November 1944);
4. The fight for the complete liberation of the country (1944).

In this textbook, the civil war is mentioned only partially in teaching topic 3, ―Albania under German occupation (September 1943–November 1944).‖ The following excerpt illustrates this approach: ―On November 7, 1943, the Central Committee of the National Front, after once again calling for an agreement, decided to respond with arms to the war declared by the Communist Party. From this moment on, the first elements of the civil war appeared in Albania. The complication of the war against the occupier with the phenomena of civil war deepened even further during the winter of 1943–1944‖ (Filo et al., *History 11*). Here, the term ―civil war‖ is explicitly mentioned; however, it is framed as an emerging phenomenon that complicated the broader war against the occupier rather than as a central defining feature of the period.

"Pegi" Publishing House
―Pegi‖ has also published pre-university textbooks in Albania. In the textbook *History 11* (reprint 2022), the Second World War in Albania is addressed in four teaching topics:
1. Albania under the Italian fascist occupation;
2. The growth of the anti-fascist movement in Albania (1941–September 1943);
3. Albania under the German occupation and the Albanian resistance (1943–1944);
4. The liberation of the country and the consequences of the war (May–November 1944) (Thëngjilli et al., 2022, pp. 143–160).

As in other textbooks, teaching topic 3, ―Albania under German occupation and Albanian resistance (1943–1944),‖ primarily emphasizes armed resistance against the occupiers. However, unlike some of the other publications, the term ―civil war‖ is not used. The following excerpt from page 151 illustrates this approach: ―*At the II Conference of the General National Liberation Council in Labinot, in September 1943, the national liberation councils were defined as the only organs of power in the country and it was decided to militarily strike the Balli Kombëtar, the Zogists and other nationalist forces, who were accused of collaborating with the German occupier. Since the autumn of 1943, the first armed clashes began between the partisan forces and the Balli and Zogists*‖ (Thëngjilli et al., 2022, p. 151). Although armed clashes between Albanian political forces are clearly described, the conflict is not characterized as a civil war.

As this excerpt indicates, the text adopts a restrained and measured formulation. While it acknowledges the existence of armed confrontations between communist and nationalist forces, it does not explicitly categorize these events as a civil war. The conflict is presented descriptively, without assigning it a definitive conceptual label. The comparative analysis of the textbooks published by the four publishing houses reveals differentiated approaches to the treatment of the internal conflict in Albania during the Second World War. The publishing house ―Filara‖ presents the confrontation between communist and nationalist forces as an internal clash occurring within the broader context of resistance against the German

occupation, without employing the term ―civil war.‖ The formulation remains descriptive and avoids explicit conceptual classification. In contrast, the publishing house ―Albas‖ explicitly refers to the armed confrontation between the two political groupings as a civil war that unfolded alongside the liberation struggle, although the discussion remains concise and does not elaborate extensively on its broader dimensions. The publishing house ―Ideart‖ adopts an intermediate position, referring to the emergence of elements of civil war during the years 1943–1944 and acknowledging its existence in a limited and carefully framed manner. By comparison, ―Pegi,‖ similar to ―Filara,‖ does not use the term ―civil war,‖ presenting the confrontation between partisan and nationalist forces primarily as a military development within the context of the anti-occupation struggle rather than as an explicitly defined internal political conflict.
In summary, among the four textbooks analyzed, only ―Albas‖ consistently and explicitly designates the events as a civil war. ―Ideart‖ refers to the phenomenon in a partial and qualified manner, whereas ―Filara‖ and ―Pegi‖ describe the internal clashes without adopting terminology that would formally classify the conflict as such.

3. Conclusions

The differing perspectives on the terminology and interpretation of the civil war in Albania are closely connected to the broader historical, political, and educational transformations the country has undergone over the past decades. For an extended period, the presentation of this era in school textbooks was shaped by the official historiography of the communist regime, which framed the Second World War exclusively as a national liberation struggle led by the Communist Party and the National Liberation Front. Within this interpretative framework, emphasis was placed on national unity and the legitimacy of the political order that emerged from the war. Consequently, the notion of a ―civil war‖ was largely excluded, and the armed confrontation between communist and nationalist forces was incorporated into the broader narrative of resistance against the occupier rather than presented as an internal conflict within Albanian society. Following the political changes of the 1990s and the opening of archival sources, historical research entered a new phase. Albanian and foreign scholars and studies advanced more critical interpretations, arguing that the events of 1943–1944 meet the defining characteristics of a civil war. Their analyses highlight that the clashes between communist and nationalist forces were not limited to anti-occupation resistance but reflected a struggle for political power and for the future direction of the Albanian state after liberation. This historiographical shift gradually influenced textbook content in the post-communist period, where the term ―civil war‖ began to appear, though not consistently across publications.
The comparative analysis of pre-university textbooks demonstrates that publishing houses adopt differentiated approaches to this issue. The textbooks published by ―Albas‖ explicitly refer to the internal armed confrontation as a civil war and frame it as part of the historical reality of the period. In contrast, textbooks published by ―Filara‖ and ―Pegi‖ avoid employing the term, instead describing the conflict in more general terms such as ―clash‖ or ―political confrontation,‖ without formally categorizing it as a civil war. ―Ideart‖ occupies an intermediate position, acknowledging elements of civil war in certain contexts while presenting the issue with caution and restraint. These variations in terminology and emphasis reflect not only historiographical choices or the sources consulted by authors, but also the broader function of textbooks within the educational system. Beyond transmitting historical knowledge, textbooks contribute to civic education and to the shaping of collective identity.

For this reason, the use of the term ―civil war‖ may be perceived as sensitive, given its implications for national unity and historical responsibility. Some authors therefore avoid explicit classification, while others employ the term as part of a broader effort to promote critical engagement with the past. At the same time, although the revised national curriculum encourages interpretation and debate, it does not provide detailed guidance on the treatment of controversial historical issues, thereby allowing space for diverse editorial approaches.

In conclusion, the evolving treatment of the civil war in Albanian history textbooks reflects the broader transition from the monolithic historiography of the communist period to a more plural and critically informed historical discourse. The decision to use or to avoid the term ―civil war‖ is not merely a terminological matter; it signals how Albanian society continues to negotiate the meaning of its past, seeking to reconcile the demands of historical accuracy with concerns about social cohesion and collective memory. different perspectives on the process and terminology of the civil war in Albania are closely related to the historical, political and educational developments that the country has experienced over the past decades. For many years, the way this period has been treated in textbooks has been influenced by the official historiography of the communist regime, which described the Second World War as a purely liberation war, led by the Communist Party and the National Liberation Front. This approach aimed to emphasize national unity and legitimize the political power that emerged from the war, so any possible mention of ―civil war‖ was seen as an attempt to question this narrative. As a result, the term ―civil war‖ was not used and the armed conflict between communist and nationalist forces was presented as part of the war against the occupier, rather than as an internal conflict of the Albanian people.

After 1990, with the change in the political system and the opening of archives, historical studies took a different direction. Young Albanian and foreign scholars, such as Uran Butka, Bernd Fischer, Erald Kapri, etc., brought a more open and critical approach, arguing that the events of 1943–1944 constitute a civil war in the full sense of the word. They emphasize that the clashes between communist and nationalist forces were not only part of the war against the occupier, but an internal political conflict for power and for the direction that Albania would take after liberation. This change in academic approach also influenced the content of some textbooks of the post-communist period, where the term ―civil war‖ began to be used, although not uniformly. From the analysis of various textbooks of pre-university education, it is understood that publishing houses hold different positions on this topic. The publications of ―Albas‖ are among the few that clearly mention the civil war, describing the armed clash between Albanian political forces as part of the historical reality of that time. On the other hand, publications such as ―Filara‖ and ―Pegi‖ avoid using this term, describing the conflict in a more neutral tone, as ―clash‖ or ―political confrontation‖, without openly calling it a civil war. While ―Ideart‖ follows an intermediate path: it mentions the term only in certain cases, being careful to present the topic in a balanced and appropriate way for the school context.

These differences in treatment are related not only to the beliefs or sources used by the authors, but also to the function of the textbooks themselves. In addition to their aim to transmit historical knowledge, they also have an educational role in the civic and national formation of students. For this reason, some authors avoid using the term ―civil war‖, as it can be perceived as sensitive and divisive, while others choose to use it to encourage critical thinking in the formation of students. Even the new history curriculum, while encouraging free interpretation and debate, does not provide precise guidelines on how to deal with controversial topics, leaving room for different interpretations for publishing houses. In conclusion, the changes in the way the civil war is treated in Albanian textbooks are the result of a long process of transition from the ideological historiography of the communist period to a more open and critical approach. The use or avoidance of the term ―civil war‖ is not just a matter of terminology, but shows how Albanian society continues to reflect on its past and seek a balance between preserving national unity and trying to see historical events as fairly and objectively as possible.

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"YOUTH HEALTH BEHAVIORS AS A PATHWAY TO SUSTAINABLE COMMUNITY DEVELOPMENT: INSIGHTS FROM A THEMATIC REVIEW OF INTERNATIONAL LITERATURE"

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Abstract
Youth health is increasingly recognized as a cornerstone of sustainable development, not only from a public health perspective but also as a driver of long-term community resilience and productivity. This paper presents the findings of a thematic literature review that explores the key behavioral factors influencing youth health and their implications for sustainable community development. Drawing on evidence from international frameworks such as HBSC, YRBSS, ESPAD, SDQ, and EU Kids Online, the review identifies major themes including lifestyle habits (diet, sleep, physical activity), risk behaviors (substance use, peer pressure), and the psychosocial impact of digital environments. The synthesis highlights how complex interactions between individual, family, school, and societal factors shape youth health behaviors. The paper also reflects on the contextual relevance of these findings for countries like Albania, where community-based interventions are still limited. It concludes by emphasizing the need for integrated, evidence-informed strategies that engage schools, families, and local institutions in promoting health literacy and resilience among youth. These efforts can make a meaningful contribution to building healthier, more inclusive, and sustainable communities.

Keywords: *youth health, sustainable development, behavior, community resilience, literature review*

1. Introduction

Adolescence represents a critical life stage for the formation of long-term health behaviors that substantially influence physical and mental well-being. Key youth health behaviors—including diet, sleep, physical activity, substance use, digital engagement, and mental health—have gained increasing global attention due to their impact on quality of life and public health outcomes ([6]; [7]). International evidence shows that a large proportion of adolescents do not meet recommendations for a healthy lifestyle, with high levels of physical inactivity, unhealthy dietary patterns, excessive screen use, and insufficient sleep contributing to both physical and mental health risks ([3; 11]).

Albania reflects many of these global trends. Data from the Health Behaviour in School-aged Children (HBSC) 2021/2022 study indicate low levels of daily physical activity, frequent skipping of breakfast, and widespread consumption of sugary foods and beverages among adolescents ([4]). In addition, digital technology plays a central role in young people‘s daily lives, with most adolescents reporting unrestricted internet access and several hours of daily online engagement. While digital environments offer educational and social opportunities, excessive use is associated with sedentary behavior and sleep-related problems ([5; 8]). These patterns highlight the need for balanced, evidence-informed approaches to youth health, positioning adolescent well-being as a key investment in sustainable societal development ([9]).

Health risk behaviors and mental well-being pose significant challenges during adolescence.

Although Albania reports a lower prevalence of substance use than the European average, these behaviors remain present ([2]). ESPAD 2019 data show that 11% of Albanian adolescents aged 15–16 reported smoking in the past 30 days, compared to 21% across Europe, while alcohol remains the most commonly used substance, with 14% of Albanian adolescents aged 11–15 reporting recent use. The emergence of e-cigarette use further highlights evolving risk patterns. Mental health is an equally critical concern: globally, one in seven adolescents experiences a mental disorder, contributing substantially to the overall disease burden in this age group. In Albania, limited data indicate that sleep quality, physical activity, and social support are closely linked to psychological well-being, with older adolescents reporting lower life satisfaction and higher stress levels. These findings emphasize the protective role of healthy behaviors and the long-term risks associated with unhealthy lifestyles during adolescence ([12]). Social determinants, sleep quality, physical activity, and social support are closely linked to psychological well-being ([10]). These findings emphasize the protective role of healthy behaviors and the long-term risks associated with unhealthy lifestyles during adolescence.

Given the strategic importance of youth health behaviors for public health and sustainable development, an integrated review of existing evidence is essential. While extensive international research is available, evidence from the Albanian context remains limited and fragmented. This thematic narrative review addresses this gap by synthesizing contemporary literature on key youth health behaviors—diet, sleep, physical activity, substance use, digital engagement, and mental health—situating Albania within international trends and identifying critical research gaps to inform policy, practice, and future studies.

2. Aim and Objectives of the Study

This study aims to review international evidence on youth health behaviors and examine their implications for sustainable community development, with a specific focus on the Albanian context, to identify key trends, research gaps, and evidence-informed policy directions.

Specific Objectives

- To identify dominant themes in the international literature on youth health behaviors, including diet, sleep, physical activity, substance use, digital engagement, and mental well-being, drawing on major international surveillance systems and institutional reports.
- To examine the interaction between youth health and sustainable community development, focusing on the social, educational, and institutional implications of adolescent health behaviors.
- To assess the applicability of international best practices to the Albanian context, with particular attention to existing school- and community-based health promotion initiatives.
- To provide evidence-informed recommendations for strengthening community interventions targeting young people aged 11–25 in Albania, emphasizing intersectoral approaches involving schools, families, and local institutions.

3. Methodology

This study employed a thematic narrative review of international scientific literature to examine youth health behaviors and their relationship with sustainable community development. This approach was selected to enable a broad and integrative analysis, allowing the inclusion of diverse theoretical and empirical sources rather than restricting the review to a single study design, thereby supporting a comprehensive analytical framework.

3.1 Data Sources and Search Strategy

Literature searches were conducted across major international databases, including PubMed, Scopus, Web of Science, Google Scholar, and the Cochrane Library. In addition, institutional reports from WHO, UNICEF, OECD, EU Kids Online, and UNFPA were reviewed. Key search terms included ―youth health behaviours,‖ ―adolescents' lifestyle,‖ ―sustainable development and youth,‖ ―community health promotion,‖ ―school-based health interventions,‖ ―youth mental health,‖ ―physical activity and adolescents,‖ and ―digital wellbeing,‖ which were systematically combined to ensure comprehensive coverage of the literature.

3.2 Inclusion and Exclusion Criteria

Inclusion criteria comprised peer-reviewed articles and institutional reports published between 2014 and 2024, written in English, and based on transparent and verifiable methodologies. Eligible studies focused on young people aged 11–25 years and examined the relationship between youth health behaviors and community, educational, or institutional factors.

Exclusion criteria included studies without full-text access, publications with an exclusively clinical or medical focus lacking community-level perspectives, studies not addressing the 11–25 age group, and non–peer-reviewed or methodologically weak sources.

3.3 Thematic Analysis Process

The thematic analysis was conducted through a sequential, multi-stage process. Initially, studies were screened based on titles, abstracts, and eligibility criteria. Selected articles underwent full-text review and were organized according to dominant thematic areas. The analysis was structured around eight predefined categories: diet and nutrition; physical activity; sleep and circadian rhythms; substance use; mental health; digital technology use; sexual health education; and community engagement. A thematic coding approach was applied to identify key themes, recommendations, and interdisciplinary linkages within each source. Finally, a comparative analysis was undertaken to contrast international evidence with the Albanian context, highlighting transferable lessons relevant to local policy and practice.

3.4 Quality Appraisal of Sources

To ensure scientific rigor, sources were assessed based on methodological quality, data transparency, author credibility, and relevance to the study objectives. Systematic reviews and key evidence sources were appraised using established critical appraisal tools, including the CASP checklists and the AMSTAR 2 instrument**.**

3.5 Theoretical Framework

This review is guided by two complementary theoretical frameworks:

(1) Bronfenbrenner's Bioecological Model of Human Development and

(2) the World Health Organization's Health Promoting Schools approach.

The bioecological model provides a comprehensive lens for examining interactions between individual factors, immediate social environments (family, school, peers), and broader structural influences such as cultural norms and educational policies. In parallel, the Health Promoting Schools framework offers a practical institutional perspective, emphasizing schools as key settings for health education, social support, and well-being promotion. Together, these frameworks structure the thematic analysis and support the interpretation of the links between youth health behaviors and sustainable community development**.**

3.6 *Methodological Considerations and Reflection:*

A thematic narrative review was selected to align with the exploratory and interdisciplinary nature of the study, allowing integration of diverse theoretical, empirical, and institutional sources across public health, psychology, education, and social sciences. Over 90 sources published between 2014 and 2024 were reviewed and thematically coded across eight predefined domains related to youth health behaviors. To enhance analytical rigor, a subset of materials was independently coded by two researchers, with comparative review and reflective discussion used to ensure consistency and reduce subjective interpretation.

4. Results

This section presents the findings of the thematic review on youth health behaviors, structured around key themes identified in international and regional literature. Each subsection focuses on a specific behavior—diet, physical activity, sleep, substance use, digital technology, and mental health—highlighting major findings, influencing factors, and their relevance to the Albanian context. The synthesis is based on evidence from established sources, including HBSC, WHO, UNICEF, and ESPAD.

4.1 Diet and Nutrition

Dietary habits during adolescence play a central role in physical health, cognitive functioning, mental well-being, and the formation of long-term lifestyle patterns. International evidence indicates a persistent decline in daily fruit and vegetable consumption among adolescents, particularly among boys, alongside increasing intake of sugary foods and beverages. HBSC data from over 50 countries show that in several Central and Eastern European countries, fewer than 30% of adolescents consume fruit daily, while breakfast skipping is common, with approximately one in three adolescents omitting breakfast multiple times per week.

Dietary choices are shaped by interacting micro- and macro-level factors, including family environment, peer influence, school food settings, socioeconomic status, and exposure to marketing of ultra-processed foods through digital media. These findings highlight diet as a key modifiable determinant of adolescent health and underscore the importance of supportive school and community environments in promoting healthy eating behaviors.

HBSC Albania 2021/22 data indicate suboptimal dietary patterns among adolescents, with only 35% consuming fruit daily and fewer than 30% regularly consuming vegetables. Daily intake of sugary drinks (22%) and frequent consumption of sweets (28% more than once per day) are common, while breakfast skipping affects approximately 23% of adolescents on school days. Gender differences are evident, with girls reporting higher fruit consumption and boys more frequent intake of processed foods.

These findings mirror regional trends but also reveal context-specific challenges, including insufficient fruit and vegetable intake, high consumption of sugar-rich products, and a gap between nutrition education and the actual availability of healthy food options in school and community settings.

***4.2** Physical Activity*

Physical activity is essential for adolescents‘ motor development, cardiometabolic health, mental well-being, and academic performance. Despite WHO recommendations of at least 60 minutes of daily physical activity, international evidence shows that approximately 80% of adolescents worldwide do not meet this threshold. Physical activity levels decline markedly with age, particularly among girls, with the steepest drop observed between ages 13 and 15.

Participation in organized sports, quality physical education, and supportive community policies are consistently associated with higher activity levels.

In Albania, HBSC 2021 data indicate that only 27% of adolescents achieve the recommended daily level of physical activity, with significant gender disparities (33% of boys versus 21% of girls). Participation in organized sports is lower in rural areas, and school-based physical education is limited to 1–2 hours per week. These findings highlight structural barriers, gender and geographic inequalities, and the need for school- and community-based interventions to promote active lifestyles among young people.

4.3 *Psychoactive Substance Use*

Psychoactive substance use during adolescence represents a major health risk with both short- and long-term consequences. International evidence indicates that alcohol remains the most commonly used substance among European adolescents, with ESPAD 2019 reporting lifetime alcohol use among over 80% of 15–16-year-olds, alongside notable levels of recent tobacco use (20%) and cannabis experimentation (16%). Gender differences have narrowed in recent years, and early initiation is strongly associated with increased health and social risks. Family norms, peer influence, availability, and marketing exposure are key determinants, while protective factors include school engagement, parental supervision, and participation in constructive activities.

In Albania, ESPAD 2019 data show lower prevalence compared to European averages, with 56% of adolescents reporting lifetime alcohol use, 11% recent smoking, and 5% cannabis experimentation. HBSC 2021 findings indicate that 14% of adolescents aged 11–15 reported alcohol use in the past month, and approximately 9% had experimented with tobacco. Despite comparatively lower levels, emerging trends—particularly the rise of e-cigarette use and early initiation—highlight the need for sustained prevention policies and stronger institutional protective mechanisms.

4.4 Digital Technology and Social Media

Digital technology and social media have become central to adolescents‘ daily lives, offering opportunities for learning and social interaction while also posing risks when use is excessive or unregulated. International evidence indicates that over 80% of European adolescents have daily internet access, with average screen time exceeding 3–4 hours per day. Prolonged and late-night use is associated with sleep disruption, sedentary behavior, anxiety, depressive symptoms, and reduced self-esteem, particularly among girls. Passive use and social comparison have been identified as key risk mechanisms.

In Albania, UNICEF data show that approximately 79% of young people aged 9–17 have unrestricted internet access, with an average daily use of 3.3 hours. A substantial proportion report emotional discomfort linked to social media use, including anxiety when disconnected and negative feelings after online engagement. These findings reflect broader European trends but also reveal gaps in digital literacy education, parental mediation, and institutional oversight, highlighting the need for balanced and protective approaches to adolescent digital well-being.

4.5 Risky Sexual Behaviors

Risky sexual behaviors during adolescence, including unprotected sexual activity and limited reproductive health knowledge, pose significant risks for unintended pregnancies, sexually transmitted infections, and adverse psychosocial outcomes. International evidence indicates that approximately 20% of 15-year-olds in Europe report sexual experience, with wide variation in contraceptive use at first intercourse, particularly lower in Eastern and Southeastern Europe. Comprehensive sexuality education and youth-friendly health services are consistently identified as key protective factors.

In Albania, available data remain limited. UNFPA estimates indicate that around 14% of adolescents aged 15–19 have had a sexual experience, yet only 41% reported using protection during their first intercourse. Many young people rely primarily on social media for information, reflecting gaps in formal sexuality education and limited access to structured reproductive health services. These findings highlight persistent cultural barriers, gender inequalities, and institutional gaps that increase vulnerability among Albanian youth.

4.6 Youth Mental Health

Mental health is a critical component of adolescent well-being, with long-term implications for social functioning and life-course outcomes. International evidence indicates that approximately one in seven adolescents experiences a mental health disorder, with depression and anxiety being the most prevalent, particularly among girls. Rising levels of psychological distress, self-harm, and suicide among adolescents aged 15–19 have emerged as major global concerns, further intensified by social disruption, academic pressure, and economic uncertainty. Social support consistently acts as a key protective factor, while excessive digital exposure, bullying, and stigma increase vulnerability.

In Albania, available evidence remains limited and fragmented. HBSC 2021 data show that 38% of adolescents frequently experience anxiety or tension, while only 23% report high life satisfaction. Mental health challenges are more pronounced among girls and older adolescents, and access to professional psychological support is very limited. These findings highlight significant service gaps, low institutional capacity, and the urgent need for school-based and community mental health interventions targeting young people.

5. Discussion and Recommendations

The findings of this thematic review indicate that youth in Albania largely follow health behavior patterns observed across Europe, including unhealthy diets, insufficient physical activity, substance use, risky digital engagement, and growing mental health challenges. However, these behaviors are shaped by distinct national conditions, particularly socioeconomic constraints, limited supportive infrastructure, and fragmented health and education systems. Compared with countries with consolidated youth and health promotion policies, Albania demonstrates lower levels of protective behaviors, especially regarding sexual health protection and access to mental health support.

Youth health behaviors emerge from a complex interaction between individual factors, institutional environments (schools, health systems, media), and community contexts (cultural norms, accessibility, family support). In Albania, weak intersectoral coordination between education, health, and local government remains a major barrier to integrated and sustainable interventions, underscoring the need for coordinated, community-based approaches.

Youth health is closely linked to the Sustainable Development Goals, particularly SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), and SDG 10 (Reduced Inequalities). Promoting healthy behaviors through inclusive education and school-centered models—such as the Health Promoting Schools framework—represents a strategic pathway for strengthening community resilience and social equity in the Albanian context.

The review also identifies substantial gaps in both national and international evidence. In Albania, data remain limited and fragmented, especially in the areas of mental health, sexual education, and digital well-being, while institutional services and extracurricular health-promoting activities are underdeveloped. Internationally, there is a lack of longitudinal, community-focused, and qualitative research linking youth health behaviors to measurable indicators of community development, particularly in middle-income and transition countries. Addressing these gaps through updated evidence, mixed-methods research, and context-specific case studies is essential to inform effective, evidence-based policies and interventions for youth well-being.

5.1 Evidence-Based Recommendations

The findings of this review highlight several actionable, evidence-informed directions for policy-making and local practice. At the institutional and community level, municipalities, educational authorities, and community organizations can play a central role in embedding youth health promotion within local social and urban development strategies.

Key recommendations include:

- Integrating age-appropriate, evidence-based health education modules across all levels of pre-university education, addressing nutrition, physical activity, mental health, sexual health, and digital well-being.
- Expanding access to youth-friendly psychological and counseling services within schools and community centers, with particular attention to mental and reproductive health.
- Strengthening intersectoral programs that connect schools, local governments, and youth organizations to promote physical activity, healthy lifestyles, and social participation.
- Implementing comprehensive sexuality education, supported by teacher training and culturally appropriate educational materials.
- Developing digital platforms and communication campaigns to promote safe technology use and prevent online bullying.
- Enhancing national monitoring systems through sustained participation in surveys such as HBSC and ESPAD, alongside qualitative case studies in schools and communities to identify effective and transferable practices.

5.2 Evidence-Based Recommendations and Practical Implications

The findings of this review provide clear, actionable implications for policy-making and local stakeholders. Municipalities, regional education authorities, and community centers can integrate youth health promotion into local social and urban development strategies, recognizing adolescent well-being as a foundation for sustainable communities.

Key evidence-based recommendations include:

- Embedding age-appropriate, evidence-based health education modules across all levels of pre-university education, in collaboration with educational institutions.
- Expanding access to youth-friendly psychological and counseling services within schools and community centers, with attention to mental and reproductive health.

- Strengthening intersectoral programs involving schools, local governments, and youth organizations to promote physical activity, healthy nutrition, and social participation.
- Implementing comprehensive sexuality education, supported by teacher training and appropriate educational materials.
- Using digital platforms and local communication channels to raise awareness about safe technology use and the prevention of risky behaviors, including online bullying.
- Improving national monitoring systems through sustained participation in surveys such as HBSC and ESPAD, complemented by qualitative case studies in Albanian schools and communities to identify effective and transferable practices([2,4]).

5.6 Study Limitations

This narrative review has several limitations that should be considered when interpreting the findings. The thematic, non-systematic approach did not include meta-analytic techniques or quantitative quality weighting, and the review was limited primarily to English-language sources accessible through international databases. As with all narrative reviews, there is potential for selective inclusion and subjective interpretation. In addition, the evidence largely reflects literature published between 2014 and 2024, which may not capture the most recent developments. These limitations are partially mitigated by the comprehensive thematic scope and the inclusion of high-quality institutional sources.

6. Conclusions

This thematic review confirms that adolescence is a critical period for the formation of health behaviors with lasting implications for individual well-being and community development. Key domains - nutrition, physical activity, substance use, digital engagement, sexual behaviors, and mental health - constitute the core pillars of a comprehensive approach to youth health.

International evidence highlights shared challenges facing young people in rapidly changing social environments, including digital overload, social pressure, and structural inequalities. Albania reflects many of these trends while also facing context-specific gaps, such as limited structured health education, restricted access to youth-friendly support services, and fragmented national data.

Addressing these challenges requires coordinated action across education, health, and community sectors, supported by evidence-based and inclusive policies. Promoting healthy behaviors during adolescence should be viewed not only as an individual health priority but as a strategic investment in the sustainable development of Albanian communities. This review provides a valuable foundation for informed interventions, future research, and policy planning aimed at strengthening youth health and well-being in Albania.

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THE EFFECTS OF INTEGRATION ON SECOND-GENERATION ALBANIAN IMMIGRANTS IN THE UNITED STATES OF AMERICA

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Abstract

This study investigates the integration experiences of second-generation immigrants in the United States, emphasising cultural, social, and identity-related dimensions. Second-generation immigrants occupy a unique position, navigating between the traditions and expectations of their parents' communities and the norms and values of American society. Drawing on anthropological and sociological perspectives, this research examines how these individuals develop hybrid identities, blending elements of their heritage culture with mainstream American practices in language, social behaviour, and lifestyle.

The findings suggest that, although the second generation generally benefits from greater access to education, employment opportunities, and upward social mobility than the first generation, they also face significant challenges. These include identity tensions, feelings of cultural alienation, and experiences of stereotyping or discrimination, which can influence psychological well-being and social integration. The study further highlights the crucial role of social networks, inclusive policies, and community-based support in facilitating successful integration and promoting a sense of belonging. By exploring the nuanced interplay between heritage culture and societal expectations, this research contributes to a deeper understanding of the second-generation immigrant experience and the broader dynamics of integration in multicultural societies.

Keywords: second-generation, integration, hybrid identity, multiculturalism.

Përmbledhje

Studimi shqyrton përvojat e integrimit të emigrantëve shqiptarë të gjeneratës së dytë në Shtetet e Bashkuara të Amerikës, duke theksuar dimensionet kulturore, sociale të lidhura me identitetin e tyre. Emigrantët e gjeneratës së dytë zënë një pozicion të veçantë, duke qëndruar mes traditave dhe pritshmërive të prindërve të tyre dhe normave e vlerave të shoqërisë amerikane. Duke u mbështetur në perspektiva antropologjike dhe sociologjike, ky studim analizon mënyrën se si këta individë zhvillojnë identitete hibride, duke ndërthurur elemente të kulturës së tyre të origjinës me praktikat kryesore amerikane në gjuhë, sjellje dhe stil jetese.

Megjithëse gjenerata e dytë në përgjithësi përfiton nga një akses më i madh në arsim, mundësi punësimi dhe mobilitet social në rritje krahasuar me gjeneratën e parë, ata përballen gjithashtu me sfida të rëndësishme në integrimin e plotë të tyre. Këto përfshijnë tensione përkatësie, ndjenja të identitetit kulturor, dhe shesh herë përballen me përvoja stereotipizimi apo diskriminimi, të cilat mund të ndikojnë në mirëqenien psikologjike dhe integrimin e plotë të tyre. Studimi gjithashtu nënvizon rolin thelbësor të rrjeteve sociale. Të gjitha këto shihen si mënyra të mbështetjes së bazuar në komunitet në lehtësimin e një integrimi të suksesshëm dhe në promovimin e ndjenjës së përkatësisë. Duke eksploruar ndërveprimin e ndërlikuar midis kulturës së origjinës dhe pritshmërive shoqërore ky studim kontribuon në një kuptim më të thellë të përvojës së emigrantëve të gjeneratës së dytë dhe të dinamikave më të gjera të integrimit në shoqëritë multikulturore.

Fjalë kyçe: gjenerata e dytë, integrimi, identiteti hibrid, multikulturalizmi

1. Introduction

The emigration of Albanians to the USA has been a long-term process. The authors, like Dymi& Rafaru, cite:‖ The United States, a nation historically shaped by waves of immigration, presents a complex and dynamic environment for individuals navigating the intersection of diverse cultural backgrounds and established societal norms‖. (Ragaru,N& Dymi,A, 2004)[1]. For the authors, the USA is a place of opportunity and stability for people with different cultures and traditions. Returning to our focus on the long history of Albanian migration, dating back to the early 20th century, reflects resilience and dedication, encouraging respect and pride among the audience. (Press, 2022)[2]

For different research on social studies in America, these are referenced with statistics and migrant registrations. However, these figures are subject to limitations inherent in early data collection methods. (Pano, 2002). Based on estimates from pioneering social studies such as‖ *The Albanian Struggle in the Old World and New*‖ (1939), the size of the Albanian- American community remained stable until the conclusion of World War I. However, even at its height, the number of Albanians in the United States during the period does not appear to have exceeded 40,000. (Pano, 2002). According to The Albanians in America (1960) and accounts in the contemporary Albanian press, the Albanian population in the United States had grown to between 30,000 and 40,000 by 1918 as a result of the first great wave of migration (1902-1917). (Pano, 2002) .[3]

For the Albanian author, the first generation was integrated into social life. Pano 2002) explains that they have established institutions, such as the Pan-Albanian Federation ―Vatra‖ and the journal ―Dielli.‖ This is a valuable contribution not only to the first generation in America, including migrants, but also to intellectuals supporting Albanian migrants. The first generation made a very important contribution to the Albanian state; they helped establish its first modern form.

Follow the article written by Mehmeti Armend that he cite the professor Meta Beqiri he wrote that;‖ The periodization of immigration of Albanians to the US may be divided into four stages: (1) years 1900-1920 – arrival to the US, economic consolidation, national organization and emancipation; (2) years 1921-1944 – Albanian immigrants were keen on to acquire the American culture, but also contributed to their native culture; (3) years 1945-1989The diaspora was refreshed by new arrivals fleeing the communist regime in Albania and anti-Albanian policies in Yugoslavia – Albanian. 1991 and onwards: A massive, ongoing wave following the fall of the communist regime in Albania ― (Mehmeti, 2023)[4]

When the Albanian Communist regime fell in 1991-92, many Albanians saw their future outside Albania's borders. At that time, no one anticipated the scale of migration that would occur over the subsequent two decades. Today, one-third of Albania's 1991 population lives abroad. Most of these migrants live and work in neighbouring Greece and Italy.[5] (Nedelkoska,

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L., & Khaw, N., 2015) In our research, we found that the first step of our research, which is the author's deadline, the first generation was more educated than the second generation. Referring to the authors (Nedelkoska, L., & Khaw, N., 2015) The second generation of Albanian-Americans is concentrated in a few states, including Massachusetts, New York, and Michigan, which together account for almost 60%.

In our research, we identified the basic elements of the first migrant, conducted comparative analyses, and examined differences between the first and second generations. The United States, a nation historically shaped by waves of immigration—including a significant boost from Albania in the 1990s, when 12,000 Albanians emigrated to the United States from Albania alone in 1999, according to data from the Albanian Ministry of Labour and Social Affairs. (Ragaru,N& Dymi,A, 2004)[6] . USA Facts cites that about 50.2 million in 2024. This represents approximately 14.8% of the population, or about 1 in 7 residents in the United States. (Facts, 2024). Following the 2024 Census, the total Albanian population is approximately 200,000. (Bureau, 2024), which means the number of second-generation is very high.

The 1990s in Albania, marked by profound political, economic, and social transformations, produced new forms of population displacement, reconfiguring the relationship between the individual, the community, and territory.‖ Migration constitutes a continuous social phenomenon which, in the Albanian context, takes on distinctive anthropological dimensions. It cannot be understood merely as the physical movement of individuals, but rather as a complex process intertwined with social structures, family relations, cultural identities, and survival strategies.

According to INSTAT 2025, about 37% of households in Albania have at least one member currently living abroad, or who has migrated and returned, underscoring the scale and persistence of emigration from one of Europe‘s poorest countries, a new survey by the national statistics agency showed. (pro.intellinews, 2025) Statistics indicate that about 40% live outside of Albania. According to our statistics, Albanian emigrants prefer to migrate to countries with strong economies. Specifically, many of them are highly educated migrants who choose to leave in search of a better life. Second, the reference of IOM 2024, they estimated that: ―Countries such as Albania and the Republic of Moldova are some of the hardest hit; about 40% of Albania‘s workforce, for example, estimated to be working abroad, contributing to the brain drain, putting pressure on domestic industries and economies that are constantly losing workers in both low- and high-skilled sectors‖. (World Migration Report 2024). Of course, this movement can influence people in different ways; migration can create significant dilemmas for the first and second generations.

This dual cultural exposure often leads to heterogeneous identity trajectories, showcasing adaptability and fostering curiosity and appreciation among audiences, ranging from strong affiliation with ethnic heritage to more fluid, hybrid identities. (Omole, 2024). This dynamic process of forming hybrid identities showcases individual resilience and adaptability, fostering curiosity and appreciation in the audience. The periodical of this time has written about the Albanian migrant have moved for two reasons: economic emigration and national reasons, organisation, and emancipation.

[6] Ragaru, N& Dymi, p 56-63

2. Methodology

To explore this topic in our research, we used two methodologies: qualitative and quantitative research.‖ Within this scientific framework, it is important to use the simplest possible method for measuring data. In this study, 373 respondents aged 18–25 years were examined.‖ The study analysis was conducted from October to December 2025. The measurement instrument used in the study was Google Forms, an online platform.
The questions were structured across two dimensions: qualitative and quantitative.‖ During the questionnaire, respondents were informed that all information would remain confidential and that they were free to respond openly. The sample we selected consisted of second-generation migrants born in the USA to Albanian migrant parents. The most challenging part was finding this sample, given the very short time we had.
The questionnaires were designed by the research group conducting the scientific study, drawing on adaptations from previous studies. The questionnaire was prepared in English because the sample resided in the United States.

2.1 Research instruments

The questionnaire was divided into three sections. Section A included socio-anthropological variables such as gender, age, and marital status. Section B addressed issues related to integration in the United States, including whether respondents identified more as American or as Albanian immigrants. Section C focused on respondents‘ knowledge of Albanian culture and language. We worked to interpret the analysis on the SSP website. The instrument was adopted in accordance with the model. (Cochran, 1977) to analyse the data format.

2.1.1 Scio-dynamic variables.

The socio-dynamic includes information on age, sex, U.S. states, educational background, High school or PhD, etc. In some parts, some of the younger ones are non-respondents; for this reason, we interpret the other parts.

2.1.2 Hybridisation of cultures, Feel like Home

Within this section of the study, particular attention was given to identifying elements related to reintegration processes and participants‘ subjective sense of belonging and home attachment. Qualitative questions were designed to explore perceptions of identity by asking participants whether they identified more strongly as Albanian or American. Response options were intentionally structured with limited categorical choices, such as ―yes‖ and ―no,‖ and alternative responses, including ―I do not have sufficient information‖ or ―I do not know,‖ to maintain clarity and analytical consistency.
Furthermore, Sessions B and C incorporated direct questions concerning traditional cultural components, including food practices, musical heritage, and historical knowledge. These questions were introduced to examine the preservation of cultural memory and to evaluate the extent to which cultural hybridisation influences participants' identity construction.

3. Results

The study sought to identify key findings regarding second-generation migrants in the United States. The results demonstrate that approximately 85% of younger participants reported a high level of integration into American culture and expressed a strong sense of belonging, identifying the United States as their primary home.

The sample size was determined according to established guidelines, which suggest that for a population of 12,000, a sample of approximately 373 provides 95% confidence with a 5% margin of error (Cochran, 1977)[7]. This evidence shows that our study indicates the second generation is spread across the USA. The largest share of respondents reported living in New York (29%), followed by Michigan (23%) and Massachusetts (15%). A small percentage (7%) did not specify their state of residence. The category of residence is about 18-21 and 25. The respondent was 53% female and 47% male.

Table 1: Age Group and State of Residence of Second-Generation Albanian Migrants in the USA (N = 373

Age Group	New York	Michigan	Massachusetts	Illinois	Other States
18-21	40	55	24	18	20
21-25	45	55	31	27	33
Total/373	85	110	55	45	53

Table 2: Self-Reported Integration Status of Second-Generation Migrants in the USA n-373

Integration Status	Number	Percentage
Completely Integrated	317	85%
Not Completely Integrated	56	15%
Total	373	100%

In Table 2, we found that the second generation is fully integrated, with over 85% reporting that they feel fully integrated into life in the USA. Only 15 %that they are not completely integrated

Table 3: Socio-Demographic Characteristics of Second-Generation Migrants in the USA

Socio-demographic	Category	Frequency	Percentage %
Education level	Ph.D. High School Non-Specified/Other	11 209 153	3% 56% 41%
Civil Status	Married Not Married Non-Specified/Other	149 112 112	40% 30% 30%
Work Integration Status	Fully Integrated at Work	279 75 30	72% 20% 8%

[7] (Cochran, 1977) SSP data analysis.

4. Interpretation of cultures, feeling like home

In this session, we aim to explain how the second generation has integrated into the American lifestyle and why it is important for them to know whether they are integrated into the original culture of their homeland. We ask directional questions to help them understand Albanian culture and follow it. The response we received was really interesting.

Through them, we found that 64,34% follow the traditions of their original family. We tried to understand how important it is for them to maintain their original culture alongside the USA culture. We see that for this generation, it is so important to live in harmony rather than living with a national feeling. More than 69% report having visited their parents' homeland, and about 48% say that, in our family, we resolve situations by speaking Albanian.

Table 4: Socio-Integration and involvement in life

Socio Integration and involvement in life	**Category**	**Frequency**	**%**	%
How often do you participate in community activities or events in your neighbourhood?	1. Sometimes 2. Never	250S 118T/J	61.94 %	*38.06 %*
How comfortable do you feel speaking English in everyday situations?	Very comfortable . Not Shure	150V 240N	40.21 %	64.34 %
How important is it for you to maintain Albanian cultural traditions in your daily life?	very important. Not Important	220N 170N %	58.98 %	48.58 %
How satisfied are you with your current job or educational opportunities?	Yes, of course / not absolutely	160Y 203N	42.9	54.42
Have you ever visited Albania with your parents?	yes no	250Y 137N	67.02	36.73
How many times have you visited Albania with your parents?	Sometimes not often	215S 150N	57.64	40.21
When you host a party or celebration at your home, which cultural traditions do you primarily follow?	Albanian Culture in the USA	240A 135USA	64.34	36.19

Table 5. Hybridisation of Cultures

Variables of the Qualitative Part	Yes	No	Sometimes	Frequency	%
When you celebrate at home, such as a birthday or holiday, can you walk me through the customs, foods, and rituals you include?	150	130	50	20	**54%**
Recognition/Understanding of Albanian Traditional Phrases 1. Do you recognise the following Albanian phrases or proverbs? Please indicate if you know their meaning: Provide a list of 3–5 traditional sayings. For example: ―Buka e kripura dhe zemra e mirë‖ – ―Bread with good Hart	200	87	25	10	**63.23%**
Compared to your American friends, do you feel you are more, less, or equally familiar with Albanian traditional sayings?	202	60	10	8	**55.80%**

In the last table, we compared various variables to show that the second generation in America has a mixed culture. They are very integrated into Albanian culture. We found that 55% said they know the traditions of their original cultures very well, respect their origins very much, but feel more American than Albanian. About 63% say they know our proverbs and traditional customs very well, and sometimes they prefer to respect American culture.

5. Discussion

Given that the second generation consists of migrants born in the USA, it is important to note that 55% of them are highly integrated into Albanian culture. However, nearly half of the second generation consider themselves American citizens; they acknowledge their origins but see themselves as American more than Albanian. They know very well their parents' origins, but sometimes they prefer to live like Americans.

Balidemaj, A., in her study, cited that the second generation has a biculturalism, and in her research, she said that a positive correlation between‖ analysis was analysed to determine if acculturation and ethnic identity were predictive of psychological well-being for the entire sample‖ (Balidemaj, 2020) which means that we found in this study how important the full integration of the Albanian community is in the American lifestyle. Returning to our argument, second, our analysis of the target group found that, for the second generation, feelings about their origin are more nostalgic than a real sense of identity, because in their context, they are fully integrated into life and feel more comfortable in the USA.

In similar studies, such as those on immigrants in the USA, we found that they estimated the importance of the second generation knowing their origins and identity, and conducted a comparative analysis of the factors that drive this migration. For them, it was very important to cite that political and economic factors can contribute to migration. (Bajraba, 2018)
Second, our research found that for this community in Albania, it is more important to prioritise Albanian language, culture, and identity, and to explore these in areas such as marketing, music, and other aspects of life.
According to the Census in the USA, the Albanian people are 223.984 (Bureau, 2024) This means they are a highly influential group in the USA, and it is important to explore in future research how they are integrated with other communities. According to the Census Bureau, the ages 18 to 34 are 61,700, with Males at 47.7% and Females at 52.3%. (Bureau, 2024) That means we can explore their integration and the importance of understanding their dynamics and hybridity.

6. Research Gab

In this research, we identified some gaps in time, documents, and similar studies. We had difficulty finding participants who were willing to complete the questionnaire; for some, this article had no influence, and for others, they did not feel comfortable participating in an Albanian study. We found some other gaps to explore about real statistics. In Albania, there is no document for migrants. We tried to explore another site like Census USA. (Bureau, 2024). However, the study has limitations because it was online, and participants sometimes hesitate to respond or to complete the end, so we tried to reassure them about privacy and to revise the participation form.

7. Recommendation

In future, based on this article, we can recommend exploring other studies. It is more important for us to explore empirical studies, such as anthropological and sociological studies. We suggest that other students conduct a comparative study of second-generation immigrants in Albania and other countries to examine differences in similar attitudes. We can use various methodologies, such as comparative, interpretive, and socio-empirical studies, to examine the importance of Albanian researchers examining emigrants in the USA. As we can see, we can conduct various studies, but these require more species and funding to be conducted properly.

8. Conclusion

These studies provide a very comprehensive overview of knowledge about migration. In this article, we found that the second generation was born in the USA. To explore this research, it is important to understand the elements of Albanian and American cultures and the processes of hybridisation between them. We sought to understand the influence of their parents on their culture and to estimate how important it is for Albanian culture to preserve its traditional elements.
For us, the second generation is the group of migrants that can influence between cultures and traditions. In conclusion, the second generation comprises more than 60% who are fully

integrated into the USA. However, they prefer to maintain the traditional elements of their cultures.

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INTERNATIONAL ORGANIZATIONS AS NATURAL ALLIES OF PEACE

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Abstract
The structure and scope of international organizations resemble a giant tree whose roots can be traced back to the ancient Greek city-states, to their alliances, coalitions, and cooperation in facing the aggression of opposing forces, as well as in responding to natural disasters. Although their contemporary landscape is today embodied by the United Nations, we cannot overlook the role and influence of the industrial and democratic revolutions, nor the philosophical thought of Kant, Rousseau, and Habermas, in shaping their social and democratic character. All these factors nurture the philosophy and mission of these organizations. Figuratively speaking, they represent the tracks along which their journey continues amid the challenges of time, in defense of life, nature, and peace. The history of states and international relations demonstrates that there is no sphere of life untouched by the influence and cooperation of international organizations in fulfilling their mission, which encompasses society's interests in the fields of education, politics, economics, the military, law, social affairs, culture, and the protection of nature and the environment, among others. The following topic addresses the historical, philosophical, and political development of international organizations as instruments for the preservation of peace and the promotion of global cooperation.

Keywords: *International organizations, cooperation, states, globalization.*

1. Introduction

The digital age has transformed communication among individuals, state and private institutions, cultures, and societies, becoming a defining characteristic of our time. Technological development has advanced at unprecedented speed, accelerating every dimension of this interaction. This emphasis on speed is a central trend of our era. Although today's global landscape includes states and regional blocs that share common challenges of human existence, it also includes those that carry historical socio-economic burdens. Yet, despite these differences, development processes have rapidly advanced toward the future. In this context of globalization, the evolution of international organizations stands as one of the most valuable achievements of inter-state cooperation.

Historically, the creation of international organizations cannot be attributed to a single thinker, philosopher, or statesman. Rather, it is the product of contributions from numerous influential figures across different historical periods, continually shaped and reshaped by the evolving interests of human society. The various theories, practices, aspirations, and pressures to establish a system of rules for the orderly conduct of relations between states helped transform the idea from a realm of ideals and scholarly writings into a concrete reality, one that became a valuable and indispensable component of modern society.

Peace is among the most enduring aspirations of humanity. Throughout every historical era, people have recognized that peace is inseparable from war, conflict, and the efforts undertaken to prevent them. From the alliances of the ancient Greek city-states to the global institutions of the twenty-first century, the idea of international cooperation for the preservation of peace has evolved alongside human development and civilization. In essence, international organizations represent the institutional expression of humanity‘s pursuit of peace. They embody the belief that only through dialogue, law, and global solidarity can the recurrence of social tragedies above all, war, the harshest legacy of history—be prevented. The spirit of cooperation among states created the foundation for a favorable environment in which international organizations could emerge and, like interconnected vessels, interact and maintain reciprocal relationships with one another.

2. The used methodology

Literature research forms the foundation of this study. The consulted sources provided a rich variety of ideas and perspectives on international organizations and their role in fostering cooperation and global peace. In preparing the topic, several contemporary research methods were applied, including descriptive, argumentative, comparative, and analytical approaches. A valuable contribution to this work has come from examining the legal, historical, and academic frameworks across different periods of human history. The study has been further strengthened through references to works by international scholars, as well as independent research conducted by students in global academic forums. The process of developing this work also required an extensive review of publications by Albanian and foreign authors recognized for their academic contributions in this field, as well as scientific articles presented at various national and international conferences and papers published in academic journals.

3. Origins and necessity of international organizations

Throughout human history, the desire for peace and coexistence has been a constant aspiration. Wars, conflicts, and crises have demonstrated that peace is not a permanent or self-sustaining state, but rather a significant achievement that requires careful organization, legal frameworks to safeguard it, and mechanisms to ensure international cooperation. The Greek philosopher Aristotle emphasized this idea, stating that ―*man is a political being who cannot live outside the community*‖ (Aristotle, 2003). This concept forms the philosophical foundation of the modern international order and underpins organizations dedicated to the protection of peace. It is also the fundamental pillar on which structures of international cooperation have been built. International organizations did not emerge by chance; their roots can be traced to the city-states of Ancient Greece, the English Industrial Revolution, and the French Revolution were fully realized in the post-World War II era with the establishment of the United Nations (UN). Thus, ―*The UN organization was founded on the free political will of sovereign nations, with universal goals of common interest compiled by the experience of human society in international relations, particularly the bitter experiences of regional and world wars and conflicts. As stated in the Charter, its goals and objectives began to be implemented as a guardian of global peace and security*‖. (F Baça, A Anxhaku, 2023)
The growing need for economic relations between states, as well as communication among individuals, state and private institutions, and different cultures, has increasingly underscored the essential role of international cooperation. Advances in science and digital technology have further highlighted this necessity, making collaboration not only a feature of the future of human society but also one of its defining characteristics. Communication, as a vital form of social interaction in the modern world, plays a central role in this process. As Dominic Wolton observes, ―*Communication is a right for everyone, a kind of public service of life with two complementary dimensions: to communicate means to express: as I have something to*

say, and I have the right to say…everyone has something to say, and the right to express themselves‖ (Wolton, 2009).

Historical developments, such as the Industrial Revolution in England and the French Revolution, also left lasting marks on the formation of international organizations. In the eighteenth century, industrial and technological advances in England created international economic interdependence, rendering a state of isolation incompatible with national interests and economic, industrial, and social development. Trade, communication, and cooperation became driving forces that propelled these states toward broader developmental processes. The English philosopher John Stuart Mill emphasized that ―*freedom cannot be understood without justice and cooperation among peoples*‖ (Mill, 2015). This period thus laid the groundwork for the emergence of common international rules in economics and politics, paving the way for the establishment of global institutions.

Before the Industrial Revolution, the European market was relatively limited, mass production did not exist, communications were poor, and markets remained small. The Industrial Revolution modernized technology and enhanced productive capacities, dramatically increasing levels of production. This qualitative leap in production not only strengthened economic output but also contributed to stability in international relations and functional integration within the economic sphere. A significant social and political catalyst for the development and strengthening of international organizations was the French Revolution of 1789. By proclaiming the Declaration of the Rights of Man and of the Citizen, it affirmed the principles of freedom, equality, and fraternity values later enshrined in the founding documents of the United Nations. The French philosopher Jean-Jacques Rousseau emphasized in *The Social Contract* that ―*peace is not a natural state; it is the result of a contract between people*‖ (Rousseau, 2007). Rousseau's insight provided a philosophical foundation for the concept of international coexistence.

One of the primary aims of international organizations is the promotion of humanity. Issues such as poverty, underdevelopment, and deaths caused by hunger and disease have long been concerns for human society, and they remain urgent priorities today. However, it is only in the modern era that foundations have been laid for coordinated international cooperation to mitigate these problems and reduce their consequences. While significant progress has been made, such challenges are often precursors to crises that can lead to conflict and threaten global peace. Today, many pressing issues can be addressed through the work of international organizations. Following the First World War in 1919, the League of Nations was established with the goal of maintaining peace through cooperation and diplomatic efforts. Although it ultimately failed to prevent the outbreak of the Second World War, it served as the precursor to the United Nations (UN), founded in 1945. The preamble of the UN Charter declares: ―*We, the peoples of the United Nations, determined to save succeeding generations from the scourge of war, which in our own day has twice brought untold suffering to mankind, reaffirm our faith in fundamental human rights, in the dignity and worth of the human person, in the equality of men and women and of all nations, large and small.*‖ (Baça, 2010)

The First World War accelerated the rapid growth of international organizations. By 1935, approximately 90 such organizations were in existence, and their number increased significantly as the Second World War approached. Following the end of the war, the growth of international organizations accelerated even further. By 1984, 378 international organizations were operating across various regions of the globe. This rapid expansion, particularly after the Second World War, can be attributed to humanity's urgent need to

address the consequences of two devastating global conflicts and, in particular, the heightened threat of nuclear weapons. The psychological impact of this risk significantly influenced policymakers, who recognized that unresolved international problems could escalate to the point of destroying global peace. The necessity of increased international cooperation became indisputable for ensuring the survival of nations. ―*The primary goal of this cooperation is to preserve international peace and human rights*‖. (F Baça, A Anxhaku, 2023)
Another significant factor contributing to the growth of international organizations was the rapid development of international transport and communication. Technological advancements made it possible to travel from Europe to North America in just a few hours, rather than several days, providing a strong incentive for governments to collaborate in addressing emerging global issues. Innovations in technology also enabled rapid progress in global telecommunications, which had far-reaching effects on many aspects of human life. Peace has always been a fundamental value of human civilization, and the principle of ―replacing force with law‖ became a guiding motto for these international organizations.

4. International organizations: pioneers of peace

Through international organizations, states can enhance cooperation across all spheres of political, economic, military, legal, social, cultural, environmental, and ecological life. There is virtually no area of human activity that does not benefit from collaboration through these organizations. Accordingly, the objectives of educating society to preserve and protect peace include eliminating social injustices, renouncing violence, and preventing war. The knowledge, skills, and values acquired through such education equip individuals to confront challenges and safeguard peace. Despite these efforts, many still perceive violence as inevitable or even necessary, often unaware of the numerous alternatives for conflict resolution. War is frequently accepted as an indispensable tool for protecting national interests, giving the impression that humanity is doomed to bear the ―Sisyphus stone‖ of recurring conflict. Political scientist L. Bashkshkurti observes in his work On International Law and International Organizations*: ―The ability of European leaders after World War II lay in the fact that they recognized, considered, and studied the experiences of the past very carefully, drew lessons from them, and followed a different path that would lead them to success*‖ (Bashkshkurti, 2006).
Today, a vast network of individuals and centers associated with international and peacekeeping organizations operates worldwide, providing essential services for the protection and promotion of peace. At the forefront of these efforts are thinkers and philosophers who regard these organizations as indispensable instruments for maintaining peace and preventing war. The theories and activities of international organizations aim to eliminate war as a destructive means of resolving conflicts between peoples and states. They contribute to the peaceful resolution of disputes arising from historical and political developments and actively participate in military and peacekeeping missions to ensure stability. Additionally, they play a crucial role in disarmament efforts in situations of conflict or war, among other peace-promoting initiatives.
In his work *Towards Perpetual Peace*, Kant asserts that ―*No war guarantees the safe conclusion of a conflict*‖ (Kant, 2004). Wars often treat individuals as instruments of the state, thereby violating fundamental human rights. Historical experience demonstrates the necessity of seeking solutions in favor of peace, which represents an eternal and desirable alternative to war. The aspiration of peoples and states for stable and lasting peace, alongside the persistent

occurrence of regional and global conflicts throughout history, has placed before philosophers, diplomats, and statesmen the imperative for theoretical, political, legal, and practical commitments. The primary focus of international peace organizations remains applying pressure on governments and policymakers to implement resolutions and proposals for peace, as recommended at various international conferences. However, peace cannot be treated merely as a rhetorical value or the subject of inspiring speeches; it requires the persistent effort and determination of society as a whole.

Addressing social problems requires public education, which provides comprehensive information about current challenges, potential solutions, and the actions necessary to implement them. Peace education, in whatever form it is delivered, should be considered a central component of the social integration process. The cultivation of a culture of peace is achieved when global citizens understand worldwide issues, possess the skills to resolve conflicts constructively, adhere to international standards of human rights, gender and racial equality, value cultural diversity, and respect territorial integrity. The earliest concepts of peace are also found in religious texts, such as the Old Testament and the Quran, where peace is defined as harmony in the relationship between God and humanity. ―*Kant's ideas on freedom and human rights are worth considering. He was a passionate defender of human rights*‖. (F Baça, A Anxhaku, 2023). The essential requirements for peace include immediate and fundamental conditions for human survival, such as health, adequate nutrition, and general well-being. The pursuit of these needs historically highlighted the importance of combating arbitrary authority, oppression, and exploitation by rulers. Ancient documents often outlined the duties of kings to ensure the security of their subjects, not only by defending them against external or internal threats but also by providing essential resources and establishing a relative sense of justice according to the standards of the time.

Peace is commonly understood as the absence of conflict, but it encompasses a broader concept that pertains to healthy and harmonious human and international relations. It can refer to security in social interactions, economic well-being, equality and justice in political relations, or the absence of war and violent conflict. Another dimension of peace emphasizes the preservation of balance in human relations, tolerance, and the resolution of disputes through dialogue and agreement. Peace is a cornerstone of democracy, as it entails respect for freedom and fundamental human rights while ensuring their protection. However, the concept of peace has been interpreted differently across cultures and historical or political contexts. Achieving sustainable peace requires establishing just and equitable relations among peoples, which must be grounded in justice. True peace involves supporting the legitimate rights of all peoples rather than protecting the interests of powerful nations driven by hegemonic or exploitative policies. A central challenge remains the continuous education of individuals and society as a whole to cultivate a culture of peace. As the prominent American leader Dwight Eisenhower observed, ―Peoples love peace so much that one day, it would be good to clear the way for them and let them establish it themselves‖ (Premçi, 2003).

However, in the face of new global challenges, the role of international organizations has not always met expectations. In several contemporary conflicts, their efforts have proven insufficient to halt violence and implement lasting solutions. This is evident in cases such as the conflict between Russia and Ukraine, as well as the ongoing tensions between Israel and Palestine. In the Russian-Ukrainian conflict, the Russian veto in the UN Security Council has limited the organization to adopting symbolic resolutions, without the ability to take concrete, binding action. Similarly, in the Middle East, hundreds of resolutions aimed at protecting civilians and ending violence have largely gone unimplemented due to the divergent political interests of powerful member states. These cases highlight one of the most significant limitations of the international peace system: the dependence of international organizations on the political will of member states. To function as effective agents of peace, these organizations must strengthen their decision-making independence, enhance mechanisms for implementing resolutions, and expand the role of preventive diplomacy, ensuring they are not held hostage to the geopolitical interests of major powers.

Conclusions

The desire of peoples for peace remains the most viable alternative for ensuring its existence and shaping a secure future. Human society continues to face numerous acute challenges, including the consequences of globalization, the technological divide between industrialized and underdeveloped nations, financial disputes stemming from the exploitation of natural resources by developed countries, and conflicts rooted in political, cultural, or religious differences. Additionally, many conflicts are exacerbated by threats, systemic injustices, and various forms of discrimination, further complicating the pursuit of lasting peace.

The scope of rights and duties that states owe to their citizens should correspond to the rights and duties that states have toward one another. According to Kant, only through mutual respect for each other‘s rights can the ideal of lasting peace be achieved. These principles have already become fundamental criteria in international relations among European states. A notable example of their practical application is the European Union, which has established rigorous norms and standards for the protection of human rights. Compliance with these standards remains a prerequisite for EU integration, fostering good neighborly relations and ensuring the recognition of citizens‘ rights across member states. In this way, the European Union embodies the practical and political institutionalization of Kant‘s vision of perpetual peace within the framework of European integration.

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EXPLORING HERNIAS: PATHOLOGICAL ANATOMY, CLASSIFICATIONS, MECHANISMS, HISTOLOGICAL PERSPECTIVES, AND CLINICAL IMPLICATIONS

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Abstract
The pathological anatomy of hernias requires a deep understanding of their classification, which is essential for effective diagnosis and treatment. Hernias can be classified based on their anatomical position and underlying physiology, the most common categories being inguinal, femoral, umbilical, and incisional hernias. Each type has unique characteristics concerning incidence, demographic predisposition, and potential complications, which significantly influence the clinical decision-making process.
Based on a large and up to date bibliography, the present article aims to make a comprehensive analysis of the different types of hernias, the mechanisms underlying them and their histological characteristics. This analysis not only aids in the accurate diagnosis but also informs treatment strategies, which may include conservative management or surgical correction tailored to the type and severity of the hernia. Therefore, a comprehensive approach to the anatomical pathology of hernias is crucial for optimizing patients' results.

Keywords: *hernia, diagnosis, surgical correction, treatment*

1. Introduction
Hernias are defined as pathological entities characterized by the protrusion of an organ or tissue through an abnormal opening in the surrounding muscular or fascial structures (Öberg et al., 2017; Hope et al., 2017). This phenomenon typically occurs within anatomically predetermined weak points in the body's wall layers, leading to various types of hernias, each with unique clinical implications and management strategies (Öberg et al., 2017). The pathology of hernias can be complex, as they often affect individuals across diverse demographics, inherently linking their management to the overall well-being and healthcare resources necessary for effective treatment (Hori & Yasukawa, 2021).
The significance of studying hernias is underscored by their considerable prevalence in the general population. According to data compiled by the American Hernia Society, hernias affect an estimated 5 million individuals in the United States alone, with an annual incidence that suggests a growing concern in surgical and primary care settings (American Hernia Society, 2021). Their operational and clinical implications are profound, as untreated hernias can lead to incarceration, strangulation, and subsequent bowel obstruction, which significantly increases morbidity and affects patient outcomes. Understanding hernias transcends mere clinical awareness; it informs surgical approaches, preoperative assessments, and postoperative care, thereby integrating seamlessly into comprehensive patient management strategies.

2. Classification and Pathological Anatomy of Hernias

Hernias are broadly classified into two principal categories: external and internal hernias. External hernias include inguinal, femoral, umbilical, and incisional hernias, each characterized by their respective anatomical locations where protrusion occurs. These hernias are primarily associated with defects in the abdominal wall and are often visible upon physical examination. Internal hernias, on the other hand, refer to the herniation of intra-abdominal organs through defects within the peritoneal cavity—such as the foramen of Winslow or through mesenteric openings—often requiring advanced imaging techniques for diagnosis. Both classification systems serve crucial roles not only in surgical decision-making but also in understanding the underlying mechanisms that predispose individuals to hernia development (Öberg et al., 2017).

The anatomical and physiological mechanisms leading to hernia formation are multifaceted (Öberg et al., 2017; Yang et al., 2024). Factors contributing to hernia development include congenital weaknesses, age-related tissue degeneration, obesity, heavy lifting, chronic cough, and other conditions that increase intra-abdominal pressure. Histologically, the integrity of the surrounding tissues—including the connective tissues, fascia, and musculature—plays a pivotal role in maintaining the structural integrity necessary to prevent herniation. A comprehensive histological evaluation of hernias may reveal changes such as collagen fiber disorganization and elastin degradation, providing insight into the pathogenesis of hernias and their repair mechanisms (Yang et al., 2024).

In summary, the systematic classification of hernias—alongside their prevalent nature—emphasizes their significance within the context of medical practice. An informed approach that encompasses their anatomical, mechanical, and histological perspectives is not only vital for effective diagnosis and treatment but also enhances the potential for improved patient outcomes in the surgical arena. Research focused on these facets of hernias can inform strategies that optimize the management of this common pathological entity and ultimately lead to advancements in both preventative measures and therapeutic interventions. The pathological anatomy of hernias encompasses a variety of anatomical structures that contribute to the formation, classification, and clinical implications of these prevalent conditions. Hernias are defined as protrusions of internal organs or tissues through an abnormal opening in the body, primarily due to weaknesses in the surrounding fascia or muscle layers. The most commonly discussed types of hernias include inguinal, umbilical, and hiatal hernias, each exhibiting distinct anatomical features that facilitate their development.

Inguinal hernias, which account for approximately 75% of all abdominal wall hernias, primarily occur in the inguinal canal, an anatomical passage in the lower abdomen. This canal houses the spermatic cord in males and contains remnants of the *processus vaginalis*. The hernia formation occurs as a result of increased intra-abdominal pressure coupled with a pre-existing defect or weakness at the lateral aspect of the canal known as the Hesselbach triangle (Hope et al., 2017). Anatomical variations, such as the presence of a larger or smaller inguinal canal or weakpoints in the transversalis fascia, can further influence hernia incidence and predispose individuals to inguinal hernias.

Umbilical hernias, on the other hand, emerge due to a defect in the abdominal wall at the umbilicus. The anatomical site is particularly vulnerable in neonates due to the physiological presence of a fibrous ring that may not close completely post-natally. In adults, increased abdominal pressure from obesity, pregnancy, or ascites can lead to herniation through this weakened area (Joyce et al., 2022). The histological analysis of the tissue surrounding umbilical hernias often reveals degenerative changes in collagen fibers and altered inflammatory responses, indicating the potential role of connective tissue integrity in hernia pathogenesis.

Hiatal hernias arise as a consequence of the gastroesophageal junction herniating through the diaphragm into the thoracic cavity. This particular anatomical defect can be categorized into two main types: sliding and para-esophageal hernias. The sliding hiatal hernia occurs when the gastroesophageal junction and a portion of the stomach slide above the diaphragm, while a para-esophageal hernia involves the stomach herniating beside the esophagus. The mechanisms facilitating hiatal hernia formation include, but are not limited to, anatomical predispositions such as diaphragmatic weakness or laxity, and functional conditions, including increased intra-abdominal pressure related to obesity or chronic cough (Hope et al., 2017).

The implications of anatomical variations regarding surgical approaches to hernia repair are extensive. Surgeons must carefully consider individual anatomical features when choosing between various repair techniques, such as open versus laparoscopic methods. For inguinal hernias, the use of mesh has revolutionized repair by providing additional support to weak areas, but anatomical considerations, such as the presence of associated pathologies or the patient's body habitus, must guide the choice of mesh placement (Hori & Yasukawa, 2021). Similarly, in the repair of umbilical and hiatal hernias, the need to account for adjacent organs and potential complications like incarceration or strangulation is paramount in surgical planning. Thus, a thorough understanding of the pathological anatomy of hernias not only informs clinical practice but also enhances patient outcomes by minimizing recurrence and addressing potential complications postoperatively., Hernias are characterized by the protrusion of an organ or tissue through an abnormal opening in the surrounding muscle or connective tissue. A comprehensive understanding of the mechanisms underlying hernia formation is crucial for both clinical management and improving patient outcomes. These mechanisms encompass a complex interplay of physiological, anatomical, and genetic factors that predispose individuals to hernial development.

3. Pathophysiological Mechanisms of Hernia Formation

The primary physiological mechanism contributing to hernia formation involves weaknesses in the fascial planes and muscular structures surrounding the abdominal cavity. Anatomical vulnerabilities can arise from congenital predispositions, such as developmental defects in the abdominal wall or areas of inherent weakness, such as the inguinal canal or umbilicus. Importantly, these structural weaknesses are exacerbated by excessive intrabdominal pressure, which can occur due to various physiological stressors, including chronic cough, obesity, heavy lifting, or straining during defecation. These activities increase the tension within the abdominal cavity, leading to potential disruptions in normal anatomical integrity and facilitating herniation.

Genetic predisposition plays a significant role in hernia susceptibility (Öberg et al., 2017). Certain connective tissue disorders, such as Ehlers-Danlos syndrome or Marfan syndrome, are characterized by inherent deficits in collagen synthesis and organization, resulting in compromised tensile strength of the connective tissue (Yang et al., 2024). This predisposition significantly increases the likelihood of herniation, especially in cases involving areas of increased physiological stress. Furthermore, familial clustering of hernias has been documented, suggesting that hereditary factors may contribute to individual risk profiles.

In addition to genetic factors, acquired conditions such as chronic respiratory diseases, which lead to prolonged increases in intra-abdominal pressure, have been associated with hernia formation. Similarly, obesity not only contributes to elevated abdominal pressure but can also lead to alterations in connective tissue properties due to mechanical and biochemical stressors. Therefore, understanding the multifactorial etiology of hernias is essential for risk assessment and preventative strategies in susceptible populations.

The role of imaging modalities in diagnosing hernias and understanding the underlying mechanisms cannot be overstated. Diagnostic imaging, notably ultrasound, computed tomography (CT), and magnetic resonance imaging (MRI), serves as critical tools in the evaluation of complex hernias, particularly in cases with obscured or atypical presentations. Imaging techniques allow for the visualization of anatomical relationships and functional abnormalities within the abdominal wall, facilitating comprehensive assessments of hernial defects and associated structures. Chaturvedi et al. (2018) emphasize the importance of tailored imaging approaches to elucidate the pathophysiology of hernias in challenging clinical scenarios. Similarly, Monica et al. (2019) highlight how advanced imaging techniques can contribute to improved surgical planning by delineating the extent of hernial involvement and associated anatomical considerations, which is essential for optimizing patient outcomes.

4. Histopathological Features of Hernias

The pathophysiological mechanisms of hernia formation are intricate, involving anatomical vulnerabilities, genetic predispositions, and variations in intra-abdominal pressure. Imaging modalities play a pivotal role in both diagnosing and elucidating the mechanistic pathways of hernia development, thereby enhancing clinical practice and patient management strategies., The examination of histopathological features of hernia sacs provides critical insights into the underlying pathological processes associated with hernia formation and complications. The histological analysis typically reveals a variable degree of inflammation and fibrosis within the hernia sac (Cheng et al., 2024). Inflammatory changes often manifest as infiltrations of lymphocytes and macrophages, indicating an ongoing immune response to both the contents of the sac, which may include intestinal or omental tissues, and any potentially inciting materials such as sutures or synthetic mesh used in surgical repairs. These inflammatory responses can influence the integrity and functionality of the surrounding tissue and play a pivotal role in the development of complications such as strangulation or incarceration, where the blood supply to the herniated tissue may be compromised.

Fibrosis is another critical histopathological feature observed in hernia sacs, characterized by the proliferation of fibroblasts and excessive deposition of extracellular matrix components. This fibrotic response may represent a healing process but can also lead to adaptive changes in the mechanics of the abdominal wall. The balance between inflammation and fibrosis is significant since chronic inflammation can exacerbate tissue damage, whereas excessive fibrosis may contribute to recurrence rates post-surgery. Understanding these cellular dynamics is essential not only for elucidating the pathogenesis of hernias but also for influencing therapeutic strategies aimed at minimizing these processes during surgical repair.

Histological analyses are clinically important for assessing complications and the effectiveness of surgical repairs. Such analyses can aid in predicting recurrence by providing a clearer picture of the biological environment in which hernias exist. For instance, the presence of severe chronic inflammation or dense fibrotic tissue may indicate an adverse healing environment, which could predispose the patient to hernia recurrence or other post-operative complications (Tigora et al., 2025). Evaluating the histological characteristics can facilitate an understanding of individual patient risks and guide the selection of surgical techniques or adjunctive treatments aimed at improving outcomes.

5. Clinical Implications and Management Strategies

Correlations between histopathological findings and clinical outcomes are gaining recognition in the field of hernia repair. Studies illustrate that patients with pronounced inflammatory or fibrotic changes within their hernia sacs have higher rates of postoperative complications, including infection and delayed healing (Tigora et al., 2025). Furthermore, the nature of the tissue response—whether it reflects a robust healing response or a maladaptive fibrotic reaction—can provide predictive markers for clinicians assessing patient prognosis. As our understanding of histopathology evolves, it establishes a foundation for developing targeted therapies that could enhance healing and reduce complication rates.

The intersection of histopathology, clinical outcomes, and surgical management of hernias underscores the importance of integrating histological evaluation into routine care. Recognizing the significance of these histological perspectives in hernia management informs clinical decision-making and may lead to improved patient outcomes by tailoring interventions to the individual histopathological landscape. Such interdisciplinary approaches contribute to advancing the overall efficacy of hernia repairs and enhancing the quality of care delivered to patients suffering from this common surgical condition., The clinical implications of hernias are multifaceted, impacting patient management and treatment strategies across diverse clinical settings (Hori & Yasukawa, 2021). Understanding the specific type of hernia is crucial for formulating an effective treatment plan, as variations in etiology, anatomical considerations, and patient demographics significantly influence outcomes. For instance, the management approach for inguinal hernias may differ markedly from that of incisional or umbilical hernias. Surgical intervention remains the primary modality for hernia repair, with both open and laparoscopic techniques widely employed (Hori & Yasukawa, 2021).

Recent advances in surgical methods have improved recovery times and reduced complication rates. Laparoscopic hernia repair, in particular, has gained favor due to advantages such as less postoperative pain, faster recovery, and lower rates of surgical site infections when compared to traditional open repair procedures. However, the choice between laparoscopic and open surgery often depends on the individual‘s clinical profile, including age, comorbidities, and the hernia's characteristics (Tigora et al., 2025). Notably, the recurrence rates associated with different repair methods also warrant consideration. Studies suggest that while laparoscopic repair has a recurrence rate comparable to that of traditional methods, the long-term outcomes can be influenced by the type of mesh used and the surgical technique employed, highlighting the need for personalized patient care strategies.

The recovery trajectory following hernia repair is another critical aspect influencing patient outcomes. While standard recovery timelines may suggest a return to normal activities within a few weeks‘ post-surgery, individual healing processes vary widely and are influenced by factors such as the patient's baseline health status, the presence of concomitant conditions, and adherence to postoperative care instructions. Enhanced recovery protocols that include multimodal pain management and early mobilization have shown promise in facilitating quicker returns to daily activities, thereby improving the overall patient experience (Yang et al., 2024).

A comprehensive understanding of the histological aspects of hernias can inform clinical practices. For instance, the presence of inflammatory cells in hernial sacs, as well as changes in connective tissue composition, may influence not only the initial surgical approach but also the timing of the intervention. Recent studies have underscored the significance of these histopathological findings in predicting surgical outcomes, suggesting that preoperative optimization strategies—such as managing underlying conditions like diabetes and obesity—could mitigate complications and improve outcomes.

In light of these findings, clinical recommendations have evolved to emphasize a patient-centered approach to hernia management. Current guidelines advocate for thorough preoperative assessment, individualized surgical planning, and robust follow-up protocols to minimize recurrence and enhance quality of life post-repair (Riveros Gilardi et al., 2019; Yang et al., 2024). The integration of patient-reported outcomes into clinical practice further underscores the importance of addressing not only the mechanical aspects of hernias but also the psychosocial impact on patients.

6. Conclusion

In summary, the clinical implications of hernias extend far beyond their anatomical and pathological characteristics. Effective management necessitates a multidisciplinary approach that incorporates surgical principles, recovery optimization, and continuous evaluation of long-term outcomes, ultimately aiming to enhance the standard of care provided to patients suffering from this common surgical condition.

Hernias represent a common yet complex pathological condition requiring a multidisciplinary approach for effective management. Understanding their anatomical classification, pathophysiological mechanisms, histopathological characteristics, and clinical implications is essential for optimizing patient care. Advances in imaging, surgical techniques, and histological analysis have enhanced diagnostic accuracy and treatment outcomes. Continued research integrating these perspectives will further improve preventative strategies, surgical success, and quality of life for patients affected by hernias.

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FACTORS INFLUENCING NON-PERFORMING LOANS

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Abstract
The Albanian banking system represents the most important sector of the Albanian financial system. Over the past few years, the banking sector has faced numerous challenges, including significant transformations resulting from technological advancements and fluctuations in the level of non-performing loans. Naturally, factors such as the COVID-19 pandemic, the Russia–Ukraine war, as well as various macroeconomic and microeconomic conditions, have had an impact. Macroeconomic and microeconomic factors play a crucial role in determining the level of non-performing loans. This paper focuses on the impact of several macroeconomic factors—such as interest rates, exchange rates, inflation rates, unemployment, and financial crises—on the level of non-performing loans. The level of non-performing loans affects banking efficiency, which in turn influences financial stability and the real economy. An increasing ratio of non-performing loans indicates a vulnerable financial system, whereas a lower ratio reflects a healthy and stable one. Furthermore, non-performing loans reduce banks' profitability, which translates into a contraction of credit supply to businesses and individuals in the real economy. For this study, secondary data were obtained from the Bank of Albania and INSTAT, while primary data were collected through a questionnaire conducted with borrowers. The findings indicate that all the macroeconomic factors analyzed have a direct impact on the level of non-performing loans.

Keywords: *banking system, non-performing loans, macroeconomic factors, financial crises, credit risk*

1. Literature review

The increase in credit risk during and after the global crisis has attracted the attention of researchers, and several studies have been conducted by both foreign and local authors.
Messai, A. S., & Jouini, F. (2013) conducted an empirical study of 85 banks in Spain, Italy, and Greece, where they evaluated both macroeconomic variables and bank-specific variables of non-performing loans. Some of the macroeconomic variables considered were GDP, unemployment rate, interest rate, and financial crises. They found that non-performing loans vary negatively with GDP growth, and positively with the unemployment rate and interest rate.
Referring to foreign authors, such as Saom, S. A. et al.(2022), who studied several macroeconomic factors and their impact on non-performing loans, the study confirms a significant empirical relationship between GDP, public debt, inflation rate, and non-performing loans.
Maulad, H., et al. (2023) in their study investigates the factors influencing Non-Performing Loans (NPLs) in the commercial banking sector of Malaysia from 2012 to 2021. The study examines the relationship between bank-specific and macroeconomic factors and their impact on NPLs. The result indicates that loan-to-deposit ratio, bank size, unemployment rate, and gross domestic product significantly impact the NPLs in the Malaysian Commercial Banks industry. Meanwhile, the capital adequacy ratio and inflation rate did not affect the NPLs in Malaysia.

Ethar Albashayreh (2024) analyzed the macroeconomic and microeconomic determinants of nonperforming loans by using a sample of 13 Jordanian commercial banks from 2000-2018. The research results indicated that among the macroeconomic variables, the inflation rate, real interest rate, and global financial crises have had a significant positive impact on NPLs in Jordanian commercial banks. On the other hand, the unemployment rate was found to have no significant effect on NPLs in Jordanian commercial banks.

Chun, Se-Hak, & Namnansuren Ardaaragchaa (2024) investigated the intertemporal relationship between the non-performing loan ratio and bank lending and to analyze factors affecting loan growth using data from Mongolian commercial banks. From a macro perspective, the inflation rate has a positive effect on the total loan growth rate, while the interest rate has a positive effect on total loan growth rather than a negative effect.

Chibawe, L., & Haabazoka, L. (2025) in their study investigates the relationship between macroeconomic indicators and the Non-Performing Loan (NPL) Ratio in Zambia over a two-decade period (2003–2022/23). Descriptive statistics and regression analysis disclose that high inflation and exchange rate volatility significantly increase loan defaults,

In our country, several studies have been conducted on the macroeconomic factors that have influenced the increase of non-performing loans in Albania. Shijaku H. and Ceca K. (2011) analyzed key macroeconomic factors such as GDP, inflation rate, exchange rate, and interest rate. They observed a direct causal relationship between non-performing loans and the macroeconomic factors, including inflation, exchange rate, and unemployment rate. Their study confirmed a strong relationship between GDP, exchange rate, and the quality of loans.

Baholli et al. (2015) in their paper deals with proof of macroeconomic factors that influence NPL rate for Albania. Verification of these factors can support the proper policies that reduce the NPL level.

Mazreku et al. (2018) studied several macroeconomic factors and their impact on non-performing loans. Findings show that GDP growth and inflation are both negatively and significantly correlated with the level of NPLs, while unemployment is positively-related to NPLs. These results have important implications for banking stability within transition countries, and the role of macroeconomic policies in this regard.

2. The situation of non-performing loans in Albania

Over the past decade, non-performing loans have received increased attention from monetary policies worldwide, as it is understood that a high and uncontrolled growth of bad loans could potentially lead to the failure of the banking system as a whole.

In Albania, over the last 10 years, according to data from the Bank of Albania, there have been significant fluctuations in non-performing loans in bank system, particularly in 2015, 2016, and 2017, which were characterized by high percentages of non-performing loans. According to Shingjergji (2019), the level of non-performing loans in the Albanian banking system was at concerning levels, and as of January 2019, non-performing loans accounted for 23.1% of total loans. Throughout 2020, the level of non-performing loans remained stable at around 8.2%. In recent years—2023, 2024, and 2025—they have been at low levels.

The increase in non-performing loans was curbed in 2023, although the effects of the pandemic, the war in Ukraine, and inflation were still reflected during that year. Loan installments were paid on time throughout the past year. The latest data from the Bank of Albania show that by the end of 2024, non-performing loans had reached the lowest level of the past decade, and compared to 2014, they have decreased six times.

Table 1. Non-performing loans in recent years

Time period	**%**
February 2023	5.16
February 2024	4.69
February 2025	4.06

Source: Bank of Albania

2.1 Methodology

Paper aim

The aim of this study is to identify and analyze the macroeconomic factors that contribute to the increase in non-performing loans.

Research Objectives

- To identify the macroeconomic factors that have influenced the increase of non-performing loans in Albania.
- To determine how macroeconomic factors affect non-performing loans.

Research Questions

1. Does the interest rate affect the level of non-performing loans?
2. Does the exchange rate affect the level of non-performing loans?
3. Does inflation affect the level of non-performing loans?
4. Does unemployment affect the level of non-performing loans?
5. Do financial crises affect the level of non-performing loans?
   To conduct this study, secondary data from the Bank of Albania, INSTAT, and scientific articles were used. Primary data were collected through a questionnaire distributed to 100 individuals.

Hypotheses

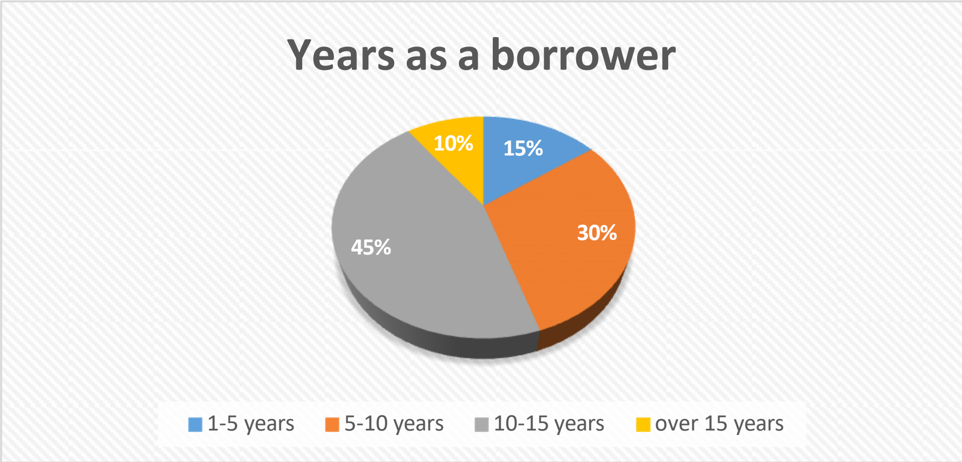
- **H_0:** Macroeconomic factors directly influence the level of non-performing loans.
- **H_a:** None of the macroeconomic factors affect the level of non-performing loans.

To test our hypothesis, we used the SPSS software.

2.2 Results

A total of 100 individuals participated in the survey. The results were used to understand the difficulties faced by citizens in repaying bank loans, as well as to obtain information on how certain macroeconomic factors have influenced loan repayment.

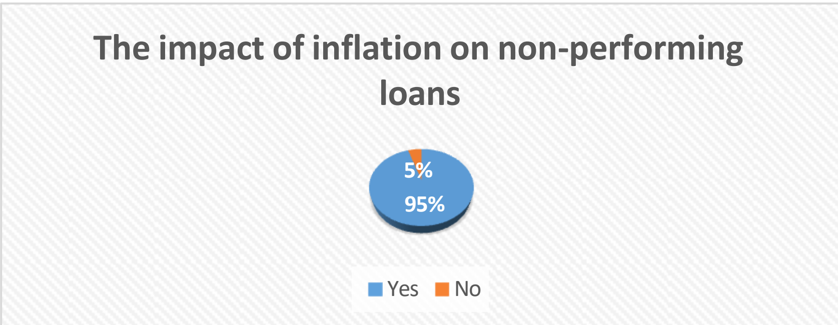
Figure 1. Years as a borrower



Source: Authors

From the analysis of the data collected regarding the duration of borrowing, it was found that the majority of study participants—approximately 45%—have extensive borrowing experience, having repaid loans for around 10 to 15 years. About 30% of participants have 5 to 10 years of borrowing experience, 10% have over 20 years of experience, and 15% have 1 to 5 years of experience.

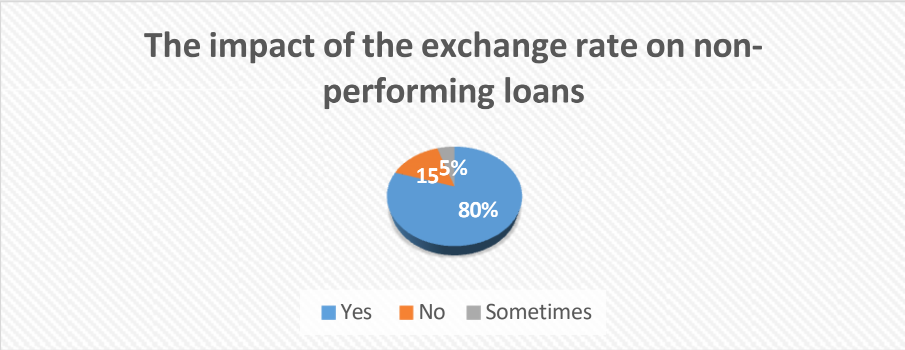
Figure 2. The impact of inflation on non-performing loans



Source: Authors

From the analysis of the data collected regarding the impact of rising inflation on the level of non-performing loans, it was found that the majority of participants—approximately 95%—reported experiencing difficulties in paying their loan installments as a result of increasing inflation, while the remaining 5% indicated that they did not face any difficulties in meeting their loan payments.

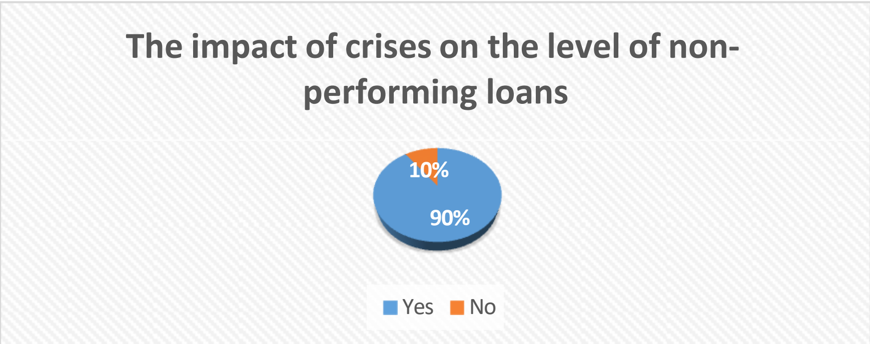
Figure 3. The impact of the exchange rate on non-performing loans



Source: Authors

From the analysis of the data collected regarding the impact of exchange rate fluctuations on the increase in non-performing loans, it was found that the majority of participants—approximately 80%—reported experiencing difficulties in paying their loan installments as a result of exchange rate volatility. Meanwhile, 15% of participants indicated that they do not encounter difficulties in paying their loan installments due to exchange rate changes, and 5% reported experiencing occasional difficulties in meeting their loan payments as a result of exchange rate fluctuations.

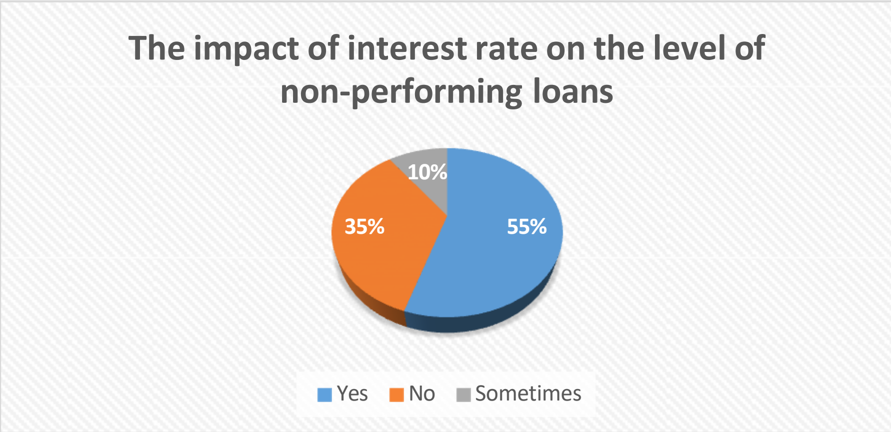
Figure 4. The impact of crises on the level of non-performing loans



Source: Authors

From the analysis of the data collected regarding the impact of economic crises on the increase of non-performing loans, it was found that the majority of participants—approximately 90%—reported experiencing significant difficulties in paying their loan installments as a result of economic crises. The remaining 10% of participants indicated that they have not encountered difficulties in meeting their loan payments due to economic crises.

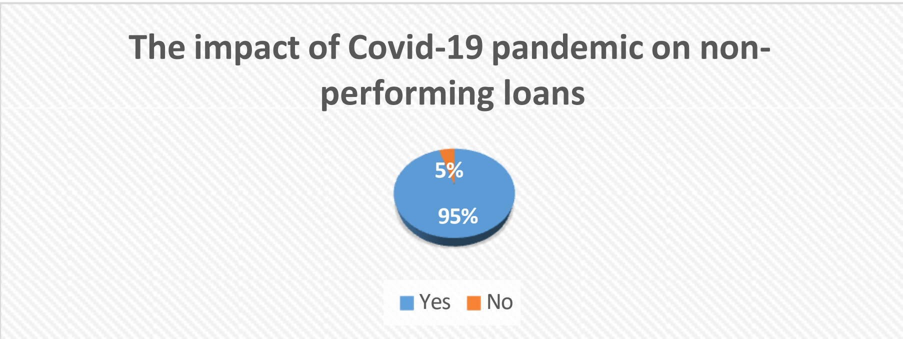
Figure 5. The impact of interest rate on non-performing loans



Source: Authors

From the analysis of the data collected regarding the impact of rising interest rates on non-performing loans, it was found that the majority of participants—approximately 55%—reported experiencing difficulties in paying their loan installments as a result of increased loan interest rates. Meanwhile, 10% of participants indicated that they do not face difficulties in paying their loan installments, and 35% reported occasionally encountering difficulties in meeting their loan payments due to the rise in interest rates.

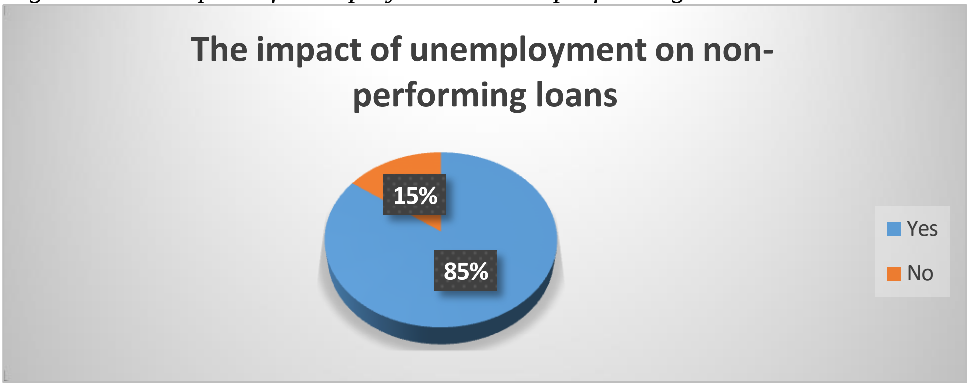
Figure 6. The impact of Covid-19 pandemic on non-performing loans



Source: Authors

From the analysis of the data collected regarding the impact of the COVID-19 pandemic on the increase of non-performing loans, it was found that the majority of participants—approximately 95%—reported experiencing difficulties in paying their loan installments as a result of the pandemic, while the remaining 5% indicated that they did not face any difficulties in meeting their loan payments.

Figure 7. The impact of unemployment on non-performing loans



Source: Authors

From the analysis of the data collected regarding the impact of unemployment on the increase of non-performing loans, it was found that the majority of participants—approximately 85%—reported that they would face significant difficulties in paying their loan installments as a result of unemployment, while the remaining 15% indicated that they would not encounter difficulties in meeting their loan payments due to unemployment.

2.3 Discussion of results

To conduct the statistical analysis, we used the SPSS software. The dependent variable is non-performing loans (NPL), while the independent variables are: financial crises (FCRISES), interest rate (IR), exchange rate (EXR), inflation (INR), and unemployment.

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	FCRISES, IR, EXR, UNEMPLOYMENT, INR[b]	.	Enter

a. Dependent Variable: NPL (Non-Performing Loans)
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.982[a]	.963	.918	1.61244	.963	21.059	5	4	.006

a. Predictors: (Constant), FCRISES, IR, EXR, UNEMPLOYMENT, INR

R = 0.982 — This value is very close to 1, indicating that the model has a very strong correlation between the independent variables and NPL.

R Square = 0.963 — This means that 96.3% of the variation in NPL is explained by the five variables (IR, EXR, INR, Unemployment, and FCrises). This is a very high percentage, indicating a strong model.
Adjusted R Square = 0.918 — After accounting for the penalty related to the number of variables and the sample size, the model still explains 91.8% of the variation. This is an excellent result.
Std. Error of the Estimate = 1.612 — A small standard error, indicating a stable and reliable model.
F Change = 21.059 | Sig. = 0.006 — The model is statistically significant, since $p < 0.05$. Therefore, the included variables significantly improve the explanatory power of the model.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	273.757	5	54.751	21.059	.006[b]
	Residual	10.400	4	2.600		
	Total	284.157	9			

a. Dependent Variable: NPL
b. Predictors: (Constant), FCRISES, IR, EXR, UNEMPLOYMENT, INR

F = 21.059 | Sig. = 0.006 — This test indicates whether the overall model is valid. Since the p-value = 0.006 < 0.05, the model is statistically significant. Therefore, at least one of the independent variables explains NPL in a meaningful way. Thus, the hypothesis is supported: **H_0: Macroeconomic factors directly influence the level of non-performing loans.**

3. Conclusions

- **Economic crises** have been one of the main factors that have contributed to the increase in the level of non-performing loans.
- **Inflation** affects negatively especially low-income and middle-class families, making it more difficult for them to repay the loans they owe to the bank.
- Among the **macroeconomic indicators** that significantly influence the increase in non-performing loans is **unemployment**. A rise in the unemployment rate is associated with an increase in problem loans, as unemployed individuals lack the economic ability to make payments, which consequently increases the level of non-performing loans.
- **Exchange rate fluctuations** are another major economic factor that causes an increase in problem loans, particularly in the case of loans taken by businesses.
- **An increase in interest rates** automatically leads to a rise in non-performing loans. When interest rates go up, consumers must pay more for the loans they have taken from the bank, which reduces their repayment capacity and increases the risk of default.

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AN ETHNOBOTANICAL SURVEY IN KOLONJA MUNICIPALITY (ALBANIA): WILD PLANTS USED FOR MEDICINAL PURPOSE

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Abstract
Local natural resources play a significant role in supporting human health in Albania, particularly as sources of medicinal plants. An ethnobotanical survey was conducted in Kolonja Municipality, southeastern Albania, to document traditional knowledge related to medicinal plant use. Fieldwork was carried out from September 2024 to June 2025 and involved semi-structured interviews and participant observation. Data on local plant names, parts used, and preparation methods were systematically recorded. Plant specimens were collected during the survey, and voucher specimens were prepared and deposited in the National Herbarium of the Research Centre of Flora and Fauna, Tirana University. In total, 92 plant taxa were identified, distributed across 44 botanical families, of which four species have not previously been reported in the Albanian ethnobotanical literature. Rosaceae, Lamiaceae, and Asteraceae were the families with the most species. Leaves, fruits, and flowers were the most commonly used plant parts, predominantly prepared as infusions and decoctions, and the primary route of administration was oral. The results highlight the richness of the region's biocultural heritage and demonstrate that traditional medicinal plant use remains actively embedded in everyday practices within the study area.

Keywords: *ethnobotany, medicinal plants, traditional knowledge, Kolonja*

1. Introduction

Plants play a foundational role in the daily lives and cultural practices of societies worldwide. Their uses constitute a core component of Local Ecological Knowledge (LEK) and represent a dynamic, multidimensional system shaped by historical, geographical, cultural, economic, and social contexts (Soukand & Kalle, 2011; Saraçi & Damo, 2021). Documenting and strengthening awareness of traditional plant knowledge systems is essential for supporting the sustainable use, conservation, and management of natural plant resources (Saraçi & Damo, 2021).

LEK—the knowledge held by specific groups about their environment—refers to the cumulative body of understandings, practices, and beliefs concerning the relationships among living beings, including humans, and their environment (Berkes, 2012, 2013). This knowledge evolves through adaptive processes and is transmitted intergenerationally via cultural continuity and extensive personal observation (Charnley et al., 2007; Sheppard et al., 2024). Ethnobotanical knowledge, also known as local ecological knowledge (LEK), is primarily orally transmitted and is strongly tied to both the landscape and cultural identity (Maffi, 2005; Alrhmoun et al., 2025, A).

Conceptualized as a knowledge-practice-belief complex, LEK encompasses the plant-use traditions of a society. LEK plays a critical role in interpreting local ecosystems and developing sustainable resource management strategies. Since the early 21st century, an expanding body of research has broadened the field of LEK, providing numerous case studies from diverse ecological and cultural contexts worldwide (Kadier & Tursun, 2025). Consequently, LEK has become an important focus of study in ecological anthropology, cultural anthropology, and ethnobotany.

In ethnobotany, LEK is particularly evident in the traditional understanding and use of plants, especially wild species valued for food, medicine, or other purposes. Medicinal plants, in particular, have long been central to community life, forming an integral part of subsistence strategies and healing practices (Pieroni et al., 2005). LEK reflects human adaptation to local environments while also serving as an expression of cultural identity and social continuity. Ethnobotanical research thus provides a foundation for sustainable development strategies that integrate biodiversity conservation with the preservation of cultural heritage.

In regions such as Kolonja, southeastern Albania, plant use remains deeply embedded in daily life, with communities relying on wild and cultivated species for nutrition, health care, and artisanal purposes. Kolonja is characterized by rich biological diversity, ecosystems with distinct floristic and vegetative profiles, and unique ethnocultural traditions, making it an important reservoir of ethnobotanical knowledge. However, the major demographic shifts since the 1990s have brought profound socio-economic and cultural changes, contributing to the erosion of traditional knowledge and the transformation of many cultural and social practices. This region remains largely unexplored from an ethnobotanical perspective, and traditional knowledge is at risk of disappearing permanently if it is not promptly documented, analysed, and disseminated.

The present study aims to document, analyse, and preserve the local plant knowledge of Kolonja's communities. Specific objectives include: (1) identifying plants used for medicinal purposes; (2) documenting local practices, preparation methods, and cultural significance; and (3) establishing a baseline for conservation strategies and further research on biocultural diversity in the region.

2. Materials and Methods

2.1. Study area and data collection

The study was carried out in the mountainous territory of Kolonja Municipality, situated in southeastern Albania, in the residential centres marked in Figure 1. This Municipality encompasses approximately 864.06 km² and according to Census 2023, had a population of 7 519 inhabitants (INSTAT, 2024). By contrast, the 2011 national census reported 11,070 inhabitants (INSTAT, 2013), a decline primarily attributable to sustained migratory outflows over recent decades. Population density is 7.5 inhabitants/km², considerably lower than the national average of 97.4 inhabitants/km², largely due to the municipality's extensive mountainous terrain. Administratively, Kolonja comprises eight units—Ersekë, Qendër

Ersekë, Leskovik, Qendër Leskovik, Novoselë, Barmash, Mollas, and Çlirim—and includes two urban centres (Ersekë and Leskovik) in addition to 76 villages. Agriculture and tourism constitute the principal economic sectors and represent key avenues for promoting sustainable local development and safeguarding the region‘s biocultural heritage.

Fieldwork was undertaken between September 2024 and June 2025 and was employed a mixed qualitative approach, including semi-structured interviews, face-to-face interviews, participant observation, guided field walks, and informal conversations. A total of 42 informants (22 males and 20 females, aged 32–90) were interviewed.

A purposive and snowball sampling strategy was employed to identify knowledgeable participants, including elders, shepherds, farmers, and individuals with long-term experience in plant use. Initial key informants were identified through local community leaders and municipal representatives, after which additional participants were recruited through referrals provided by earlier interviewees. The sampling design aimed to achieve representation across gender, age cohorts, and villages. Inclusion criteria required participants to be long-term residents (≥20–25 years) with personal or familial experience in plant collection or use.

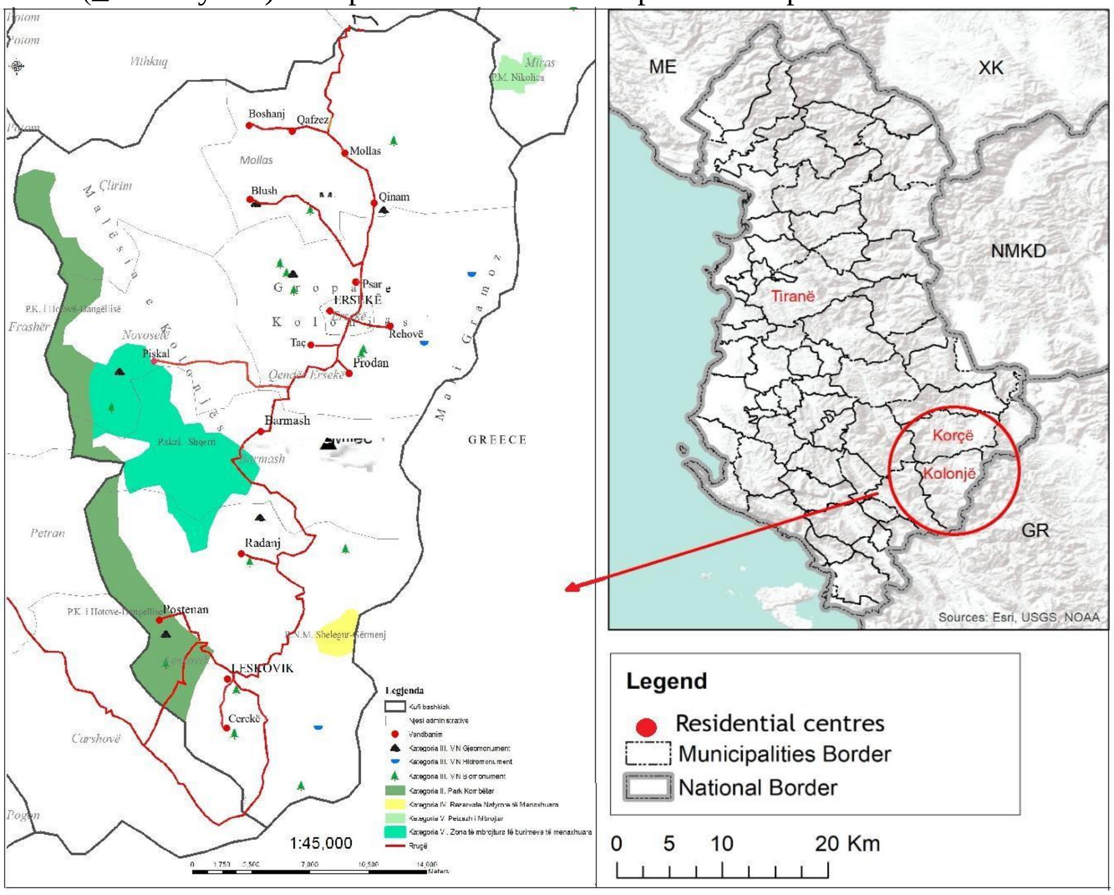

Figure 1. Map of the study area and visited residential centres

The study strictly followed the ethical guidelines for ethnobiological research established by the Code of Ethics of the International Society of Ethnobiology (ISE Code of Ethics). Prior informed consent was obtained from all participants, who were clearly informed about the study‘s aims, methods, and potential applications of its findings. The data were anonymized to ensure confidentiality.

Participants were asked to list and describe the plants traditionally used for medicine in the surrounding landscape. For each plant mentioned local plant name(s), plant organs used (e.g., leaves, flowers, bulbs), ailments treated, and in each case the methods of preparation and administration were recorded.

The ethnobotanical investigation focused on all medicinal plants currently used or recalled as having been used during participants‘ lifetimes. Free listing was employed to document the full spectrum of plants used for medicinal purposes.

Guided field walks and participant observations were conducted with selected informants to collect voucher specimens, verify plant identifications, and document harvesting practices and ecological knowledge in situ. During the fieldwork, voucher specimens were collected, and photographs were taken for later identification. All interviews were conducted in Albanian by the co-authors responsible for the field research.

All reported medicinal plants were collected either from the wild or from cultivated fields. Only one species, *Citrus limon* (L.) Osbeck, specifically its fruits, was purchased from the market and used in the preparation of remedies.

2.2. Data classification and analysis

Taxonomic identification of all plant species mentioned by informants is based on Flora of Albania (Paparisto *et al*. 1988; Qosja *et al*. 1992, 1996; Vangjeli *et al*. 2000), Excursion Flora of Albania (Demiri, 1983), Flora Albanica Atlas (Vangjeli, 2016; 2018) and Illustrated Flora of Albania (Pils, 2016; 2024). Nomenclatural updates were verified using major international databases, including World Flora Online, Euro+Med PlantBase and the Kew World Checklist.

The distribution of plant taxa was examined across botanical families, genera, preparation methods, and routes of administration. Citation frequencies were classified as low, L, if medicinal plants were quoted by less than 10% of the informants; medium, M, if mentioned by more than 10% and less than 40% of the informants; high, H, if quoted by more than 40% of the informants (Berisha et al., 2022; Alrhmoun et al., 2025, A).

3. Results

3.1. Informants' sociodemographic profile

In this study 42 people were questioned. The informants ranged in age from 32 to 90 years, with a mean age of 62.6 years, and included 22 males (52.4%) and 20 females (47.6%). The age structure of the sample reveals a marked concentration of ethnomedical knowledge among older individuals, suggesting that traditional medical knowledge is primarily maintained by the elderly due to the belief that phytotherapy is effective and safe. The limited engagement of younger generations points to a weakening of intergenerational knowledge transmission, likely influenced by social change and increasing reliance on modern healthcare systems. This situation is evident in many parts of the country, including southeastern Albania, and represents a growing concern for both cultural and biological conservation. The progressive loss of ethnomedical knowledge highlights the urgent need to document native flora and their traditional uses, as the erosion of this knowledge threatens not only cultural heritage but also the sustainable management and conservation of plant biodiversity.

3.2. Diversity of medicinal plants and their habitat

A total of 92 medicinal plant taxa were recorded and are listed in alphabetical order in Table 1. These taxa belong to 44 botanical families and 79 genera. The most represented family was Rosaceae, with 11 recorded species (Figure 2), including several fruit trees and wild shrubs such as *Cormus domestica*, *Malus sylvestris*, *Crataegus orientalis*, *Crataegus monogyna*, *Prunus spinosa*, *Rosa canina*, and *Pyrus communis* subsp. *pyraster*. The dominance of this family reflects its importance in traditional medicine. Rosaceae has a cosmopolitan distribution, and its species are widely utilized due to their broad availability and diverse therapeutic applications (Krstin et al., 2026). Other well-represented families included Lamiaceae, with 10 species, notably *Sideritis raeseri* Boiss. & Heldr., *Salvia officinalis* L., *Salvia rosmarinus* Spenn., *Mentha spicata* L., and *Origanum vulgare* L., which are widely used for various medicinal properties. The family Asteraceae, comprising 8 species such as *Achillea millefolium*, *Artemisia absinthium*, *Matricaria chamomilla*, *Silybum marianum*, and *Taraxacum officinale*, are commonly used in the form of infusions for their therapeutic effects. The frequent use of these medicinal plant families has also been reported in previous ethnobotanical studies conducted in Albania (Rexhepi et al., 2025). The therapeutic importance of these families may be attributed to their widespread distribution and accessibility within the study area.

Other families with notable contributions include Orchidaceae, represented by 6 taxa used for salep, Poaceae and Amaryllidaceae (4 species each), and Papaveraceae and Solanaceae (3 species each). Aspleniaceae, Brassicaceae, Crassulaceae, Cupressaceae, Fabaceae, and Moraceae were each represented by 2 species (Table 1). The remaining botanical families were represented by a single species, including Acanthaceae, Apiaceae, Betulaceae, Oleaceae, Pinaceae, Ulmaceae, Platanaceae, and others. This pattern of representation suggests that these taxa occupy narrow ecological niches or are associated with specific cultural uses.

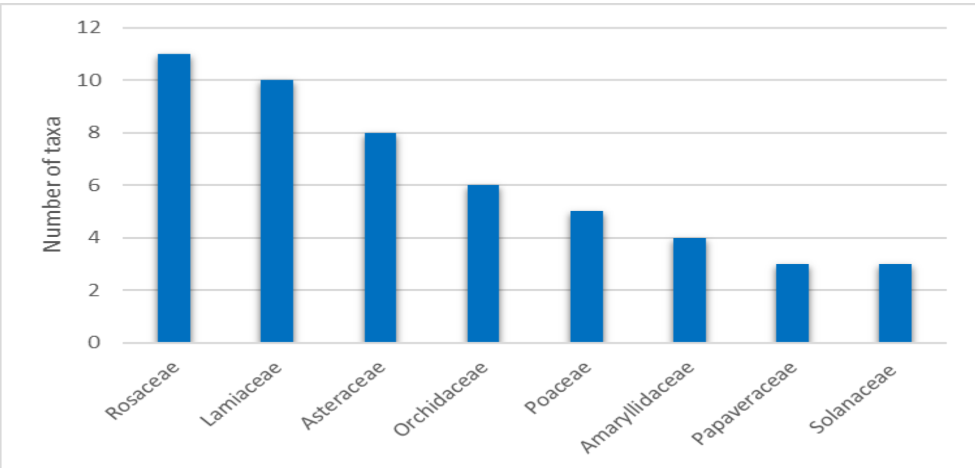

Figure 2. Plant families with the highest number of taxa mentioned by informants

The genera with the highest number of species were *Allium* (4 species) *Orchis* (3 species), *Asplenium, Crataegus, Juniperus, Mentha, Papaver, Prunus, Salvia* and *Solanum* (2 species each).

The wild flora of these regions is well adapted to the area‘s diverse climatic and ecological conditions. A wide variety of *salep* orchids such as *Anacamptis morio, Dactylorhiza sambucina*, *Neotinea tridentata, Orchis mascula*, *Orchis pallens*, and *Orchis purpurea* is supported by the area‘s varied habitats and environmental conditions. These include neutral and sandy-clay loam soils, limestone-dolomite and acidic rocky soils, as well as ecosystems such as meadows, natural pastures, open woodlands, swamps, and streamside environments. The presence of these habitats, particularly at high altitudes, plays a crucial role in the conservation of this botanical diversity.

Higher-elevation zones, characterized by cooler climates and rocky soils, also support species such as *Asplenium trichomanes* and *Sideritis raeseri*, which are valued for their therapeutic properties, including the treatment of kidney diseases and stones, respiratory ailments, and immune system strengthening. Rocky and dry soils further support the growth of *Artemisia absinthium*, *Acanthus spinosus*, *Helichrysum arenarium*, and *Salvia officinalis*, which are commonly used to treat diabetes, cardiovascular and liver diseases, kidney disorders, and respiratory problems.

Residents of the Kolonja district collect and prepare medicinal plants from a variety of habitats. Most medicinal plant resources (62 species, 67.39%) are found growing wild in natural environments, 16 (17.39%) were exclusively cultivated, while 14 species (15.22%) where found both in the wild and cultivated habitats, most commonly in home gardens.

Cultivated species include *Allium ampeloprasum* L., *Allium cepa* L., *Allium sativum* L., *Brassica oleracea* L., *Cucurbita* spp. (*Cucurbita pepo* L., *Cucurbita maxima* Duchesne), *Nicotiana tabacum* L., *Ocimum basilicum* L., *Petroselinum crispum* (Mill.) Fuss, *Solanum lycopersicum* L., *Triticum aestivum* L., and *Zea mays* L. These locally cultivated species contribute to regional agricultural diversity and food security.

The study recorded 14 semi-domesticated and commonly cultivated species, reflecting the integration of wild and domesticated plants into local farming systems through long-standing traditional management practices. In this group are included *Ficus carica* L., *Juglans regia* L., *Prunus avium* (L.) L., *Punica granatum* L., and *Tilia* spp., which are typically cultivated or domesticated within local farming systems. *Cydonia oblonga* Mill., *Lavandula angustifolia*, and *Morus nigra* L. are introduced species commonly found in local gardens or orchards. *Melissa officinalis* L., *Mentha piperita* L., *Mentha spicata* L., and *Salvia rosmarinus* Spenn. are used as garden herbs and semi-domesticated plants. *Hylotelephium spectabile* (Boreau) H. Ohba and *Sempervivum tectorum* L. are cultivated in pots as ornamental plants.

The research showed that populations of *salep* orchids and *Gentiana lutea* L. are increasingly threatened due to unsustainable harvesting of their tubers and rhizomes. These plant parts are widely collected by local communities for use in traditional herbal medicines or for sale as high-value medicinal products. Overexploitation, combined with the slow regeneration rates of these species, has led to significant population declines, raising concerns about their long-term conservation and highlighting the urgent need for sustainable management strategies.

3.3. Preparation and use of medicinal plants

Different parts of the plants were used in the treatment of diseases. Aerial parts were the most commonly used (24.75%) part in herbal preparations, followed by fruits, leaves and root system (bulbs, roots and tubers) (13.86% each of them), flowers (10.89%), seeds (7.92%) and bark (2.97%) in decreasing order. Other plant parts used included early-stage female cones, epicarp, husk, fruit stems, fruiting bodies, latex, leaf petioles, pith, pods, pseudo-fruits, septa, and silks, each accounting for 0.99% of use. Aerial parts and leaves contain significant amounts of phytochemicals, essential oils, and secondary metabolites, which explains their frequent application in traditional medicine (Krstin et al., 2026).

Among the 92 documented medicinal plant species, 59 species (64.13%) were reported to be used in the treatment of multiple ailments, whereas 33 species (35.87%) were used to treat a single ailment. For instance, *Artemisia absinthium* L. was used for diabetes, heart diseases, lever disorders, and as blood depurative, while *Cormus domestica* (L.) Spach. and *Punica granatum* L. were solely used for diarrhoea. The use of a single plant to treat multiple ailments may be attributed to the presence of many bioactive metabolites and the ability of specific compounds to act against different pathogens. In contrast, plants used as monotherapies are likely preferred because of their palatability, low toxicity, and proven efficacy based on user experience (Tugume et al., 2016).

With regard to the preparation of traditional medicines, local people employ a variety of herbal preparation methods to treat different ailments. The findings of this study indicate that tea preparation (45, 40.18%) was the most commonly used method, followed by decoction (29, 25.89%), use of unprocessed fresh materials (9, 8.04%), boiled materials (9, 8.04%), juice extraction (5, 4.46%), maceration (4, 3.57%), and chopping and soaking (2, 1.79%). The remaining preparation methods (chopping, compressing, crushing, grinding, ointment preparation, poultice formation, and squeezing) were less frequently mentioned (1, 0.89%). Most remedies were prepared from a single plant part, with only a few using multiple organs from the same plant.

The category ―teas‖ included all infusions prepared and consumed as recreational beverages, as well as those taken to obtain a specific perceived therapeutic effect. Decoction is the preferred preparation method for tough and fibrous plant materials, including barks and roots, as it facilitates the effective extraction of water-soluble bioactive compounds and enhances their therapeutic availability (Bouafia et al., 2021).

The predominance of infusion is likely due to its simplicity, cultural acceptance, and effectiveness in extracting bioactive compounds. Differences in preparation methods reflect variation in plant parts used, routes of administration, and culturally embedded ecological knowledge guiding traditional medicinal practices.

Herbal medicines were administered orally or topically, depending on the disease type and the prescribed treatment method. Ethnobotanical analysis revealed that 75.65% of the remedies were administered orally, whereas 24.35% were applied topically. This preference may reflect the greater efficacy of oral administration and the higher prevalence of internal diseases in the study area.

Citation frequency (i.e., the number of use reports per species) can serve as an indicator of the relative importance of local plant species. This measure is influenced by a range of ecological, cultural, and socioeconomic factors that shape the selection, frequency, and preference for traditional plant-based preparations (Daskalova et al., 2010; Alrhmoun et al., 2025, B). Based on the local frequency of species (Table 1), 19 out of 92 species (20.65%) were classified by informants as having a high frequency, 36 species (39.13%) as medium, and 37 species (40.22%) as low.

Ethnomedicinal plant species with high CF indicate that they are abundantly used and widely known and spread by the local community. Such species include *Acanthus spinosus* L., *Achillea millefolium* L., *Asplenium trichomanes* L., *Crataegus monogyna* Jacq. *Dactylorhiza* *sambucina* (L.) Soó, *Hypericum perforatum* L., *Juniperus communis* L., *Orchis purpurea* Huds., *Primula veris* L., *Prunus spinosa* L., *Rosa canina* L., *Sideritis raeseri* Boiss. and *Ulmus glabra* Huds. among others.

In the study area, *Hypericum perforatum* L. was primarily used for the treatment of burns, sunburns, skin wounds and infections, stomach ulcers, and stomachaches. It was also reported to relieve abdominal pain and to be used as a sedative. The most important therapeutic uses of *Ulmus glabra* Huds. included the treatment of skin diseases, burns and wounds, as well as colds, coughs, tonsillitis, and stomachache. *Juniperus communis* L. was mainly used to treat coughs, flu, and sore throat, whereas *Crataegus monogyna* Jacq. was commonly used for the treatment of hypertension and for strengthening the heart.

Tilia sp. was mentioned by a medium frequency of informants, who used this plant to treat respiratory disorders (cold/cough/flu/sore throat) and to improving general health. Studies have shown that infusion of *Tilia* sp. contains high levels of phenolic compounds with strong antioxidant and free radical scavenging activity, as well as moderate antimicrobial effects. These properties may partly explain its traditional use in the treatment of colds and respiratory ailments (Pavlović at al., 2020; Krstin et al., 2026).

The high number of species documented indicates that the study area is characterized by diverse medicinal flora used to treat various ailments, highlighting the community‘s rich traditional knowledge of medicinal plants.

The ethnobotanical data collected highlight the diverse uses of specific plant species. To our knowledge, several novel traditional therapeutic applications not previously reported in Albanian studies were documented, including the use of *Abies alba* for the management of thorides; *Juncus effusus* for prostate disorders; *Lolium temulentum* as a sedative and for the treatment of sleep disturbances; *Pinus nigra* for kidney diseases; and *Pinus heldreichii* for thorides as well as for severe and life-threatening conditions, including malignancies. These botanical species warrant further phytochemical and pharmacological evaluation.

The findings of this study highlight the close relationship between human ecology, medicinal plant diversity, and local traditional knowledge in the Kolonja district. Local patterns of plant use reflect how communities interact with and interpret their environments, shaping ethnobotanical practices that are both ecologically grounded and culturally embedded. This diversity underscores ethnobotanical knowledge as a living system sustained by the region‘s unique socio-ecological conditions and cultural traditions.

5. Conclusion

Communities in Kolonja possess rich and diverse ethnobotanical knowledge shaped by centuries of close interaction with their natural environment. In this partial study, 92 medicinal plant species were documented as being used in the treatment of a wide range of human ailments, including respiratory disorders, gastrointestinal complaints, diabetes, prostate conditions, kidney stones, cardiovascular and liver diseases, menstrual disorders, skin diseases etc. Despite increasing pressures from socio-economic and demographic change, this body of local knowledge remains a critical resource for sustainable development, biodiversity conservation, and the preservation of cultural heritage.

Immediate documentation, analysis, and dissemination of traditional plant knowledge are essential to prevent its irreversible loss. Ethnobotanical studies such as this not only preserve biocultural heritage but also provide practical tools for supporting sustainable livelihoods, promoting environmental stewardship, and fostering respect for traditional ecological knowledge among future generations.

Acknowledgement

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Table 1. Traditional use of medicinal plants in the Kolonja district (Southeastern Albania)

Latin name	Family	Local name	Plant part	Preparation	Local use for/used to treat:	CF
Acanthus spinosus L.	Acanthaceae	Gjembaç, gjemb gomari	Ripen seeds	Decoction: Boil 7 seeds and drink for 10 days	Prostate disorders	H
					Kidney depurative	M
Achillea millefolium L.	Asteraceae	Lule gjize, njëmijëfletëshi	Aerial parts	Tea	Diarrhoea	H
					Abdominal pain	L
					Stomachache	L
Alchemilla vulgaris L.	Rosaceae	Manteli i zonjës	Aerial parts	Tea	Menstrual pain, menstruation irregular	L
Allium ampeloprasum L.	Amaryllidaceae	Presh	Leaves	Topically (heat the plant material and put the liquid on the ear)	Earache/ ear infection	M
Allium cepa L.	Amaryllidaceae	Qepë	Bulbs	Topically (chopped, mixed with salt and applied to the area)	Hematoma/injuries	H
				Topically applied (juice drop)	Nosebleed	L
Allium sativum L.	Amaryllidaceae	Hudhër	Bulbs (cloves)	Eaten raw	Hypertension	M
					Decrease cholesterol	L
					Prostate diseases	L
				Topically	Eye infection/inflammation	L
Allium vineale	Amaryllidaceae	Hudhër e egër	Bulbs	Eaten raw	Hypertension	L
Anacamptis morio (L.) R.M. Bateman, Pridgeon & M.W. Chase	Orchidaceae	Salep	Tubers	First dried and then decocted	Cold/cough/flu/sore throat	M
Artemisia absinthium L.	Asteraceae	Pelin, pelin mali	Aerial parts	Tea	Diabetes	L
					Heart disease	M
					Liver disease	L

					Blood depurative	L
Asplenium ceterach L.	Aspleniaceae	Fier guri	Aerial parts	Tea	Kidney stones	M
					Kidney diseases	M
Asplenium trichomanes L.	Aspleniaceae	Bar shkëmbi, fier guri, fier shkëmbi	Aerial parts	Tea	Kidney stones	H
					Kidney disease/infection	L
Brassica oleracea L. var. *capitata*	Brassicaceae	Lakër	Fruiting body	Soaked	Leg pain, chest pain	M
Capsella bursa-pastoris (L.) Medik.)	Brassicaceae	Trasta e çobanit, trasta e bariut, shtrapër, repicë	Aerial parts	Tea	Bleeding	L
					Haemorrhoids	L
Centaurea cyanus L.	Asteraceae	Lule ciani	Flowers	Infusion, applied topically	Eye infection	L
Chelidonium majus L.	Papaveraceae	Latrapec	Aerial parts	Tea	Liver disease	L
				Soaked (juice fresh) and applied externally	Warts	L
Citrus limon (L.) Osbeck	Rutaceae	Limon	Fruits	Juice (mixed with cucumber and menthe)	Dieting	L
				Tea (mixed with mountain tea and honey)	Relieving cold/ sore throat	L
Colutea arborescens L.	Fabaceae	Fshikëkartë	Bark & pods	Decoction	For opening veins	L
Cormus domestica (L.) Spach	Rosaceae	Vadhëzë, vadhe, vodhëz	Fruits	Eaten raw	Against diarrhoea	M
Cornus mas L.	Cornaceae	Thanë	Fruits	Eaten raw	Diarrhoea	H
				Tea or juice	Improving general health	M
Crataegus monogyna Jacq.	Rosaceae	Murriz, murriz i egër	Fruits	Decoction	Hypertension	H
					Strengthening the heart	H
					Recreational tea	M
Crataegus	Rosaceae	Kollogjinë,	Fruits	Decoction	Hypertension	M

orientalis Pall. ex M.Bieb.		murriz i butë			Strengthening the heart	M
Cucurbita maxima Duchesne, *C. pepo* L., C. *moschata* Duchesne*	Cucurbitaceae	Kungull	Seeds	Eaten raw	Treatment for intestinal parasites	M
Cydonia oblonga Mill.	Rosaceae	Ftua	Leaves	Tea	Respiratory inflammations, cough	L
Cynodon dactylon (L.) Per.	Poaceae	Krisje	Roots	Decoction	Cough	L
Dactylorhiza sambucina (L.) Soó	Orchidaceae	Salep kallaus i verdhë dhe i kuq, salep putra e ariut, salep mali me lule të verdhë	Tubers	Decoction (dried, grinded and then decocted in water)	Cold/cough/flu/sore throat	H
Equisetum arvense L.	Equisetaceae	Bisht kali, borigë e egër, kripskë, kripzë	Arieal parts	Tea	Urinary retention/ urinary system infections/ kidney pain	L
Ficus carica L.	Moraceae	Fik, fik i egër	Latex	Topically applied	Warts	M
			Leaves	Tea	Diabetes	M
Gentiana lutea L.	Gentianaceae	Bar zemre, sanzë, sanxë	Roots	Tincture, Gentian raki (approx. 50–100 g of root should be left to sit for 3-4 weeks in 1 L raki; one small glassful is drunk 2-3 times a day	Improve blood circulation, cardiotonic	L
					Dyspepsia, stomach function disorder	L
Helicrysum arenarium (L.) Moench	Asteraceae	Lule ake, lule akulli, trendelinë	Aerial parts	Tea	Liver diseases	M
Hylotelephium spectabile (Boreau) H.Ohba	Crassulaceae	Vesh gomari, vesh gomare	Leaves	Compress (the epidermis is removed from the leaf)	Boil/carbuncle; skin infection	H
Hypericum perforatum	Hypericaceae	Lule balsami,	Flowering	Macerated in olive oil, exposed	Burns, skin wounds/cuts/infection	H

L. Crantz		lulebasani, lule e verdhë	aerial parts	to the sun for 40 days, as an ointment	Stomach ulcer/ ache	L
				Tea	Sedative	H
					Abdominal pains	M
					Stomach ulcer/ache	H
				Topically applied (macerated in olive oil for 40 days, exposed to the sun; newly formed walnut fruits macerated for 40 days, exposed to the sun; mixed together)	Sunburn treatment	L
Ilex aquifolium L.	Aquifoliaceae	Gjemb ariu, gjemb ujku	Leaves	Tea	Kidney diseases/ kidney stones	M
Juglans regia L.	Juglandaceae	Kaçkë, arrë	Newly formed fruit	Macerated in honey for 40 days	Thyroids	M
				Macerated in raki for 40 days	Thyroids	M
			Septum	Decoction (can be mixed with bay leaves and apple peel)	Cough	H
			Husk	Decoction used to rinse the hairs	To strengthen and maintain hair	L
				Decoction (topically applied rinsing)	Eczema, psoriasis	L
Juniperus communis L.	Cupressaceae	Dëllinjë e zezë, gollogungë e zezë	Fruits	Decoction	Cough/flu/sore throat	H
Juniperus oxycedrus L.	Cupressaceae	Dëllinjë e kuqe, gollogungë e kuqe	Fruits	Decoction	Cough/flu/sore throat	M
Laurus nobilis L.	Lauraceae	Dafinë	Leaves	Decoction	Cold/cough/flu/sore throat	M
Lavandula angustifolia Mill.	Lamiaceae	Livando	Aerial parts	Tea	Sedative, relaxation	L
Lolium temulentum L.	Poaceae	Egjër	Grains	Decoction	Insomnia	M

Malus sylvestris (L.) Mill.	Rosaceae	Mollçinë, mollë e egër, mollë e thartë, mollçinka	Fruits	Decoction	Diabetes	L
					Recreative tea	M
Matricaria chamomilla L.	Asteraceae	Kamomil, maraqkë	Flowers	Tea	Sedative/ insomnia	H
				Decoction (topically applied, rinsing or for compress)	Eye inflammations/eyes clean (especially for children)	M
				Decoction (externally vaginal rinsing)	Genital cleaning	M
Melissa officinalis L.	Lamiaceae	Bar blete, bima e bletës, çelinok, spelinok, sherinok, shperinok	Aerial parts	Tea	Improving general health	M
					Hypertension	M
Mentha spicata L.	Lamiaceae	Mëndër, mender, dhiozmë, najazmë	Aerial parts	Tea	Improving general health, relaxation	M
Mentha piperita L.	Lamiaceae	Mente	Aerials parts	Tea	Improving general health, relaxation	L
Morus nigra L.	Moraceae	Man i zi	Fruits, leaves	Tea	Cold/sore throat/tonsillitis	M
Neotinea tridentata (Scop.) R.M.Bateman, Pridgeon & M.W.Chase	Orchidaceae	Salep dudum	Tubers	Decoction (dried, grinded and then decocted in water)	Cold/cough/flu/sore throat	L
Nicotiana tabacum L.	Solanaceae	Duhan	Leaves	Dried, chopped	Wounds (haemostatic)	L
Ocimum basilicum L.	Lamiaceae	Borzilok	Aerial parts	Tea	Decrease lactation	L
Olea europaea L.	Oleaceae	Ulli	Leaves	Tea	Diabetes	L
Orchis mascula (L.) L.	Orchidaceae	Salep, salep koqe dashi	Tubers	Decoction (dried, grinded and then decocted in water)	Cold/cough/flu/sore throat	L

Orchis pallens L.	Orchidaceae	Salep koqe keci	Tubers	Decoction (dried, grinded and then decocted in water)	Cold/cough/flu/sore throat	L
Orchis purpurea Huds.	Orchidaceae	Salep patate, salep koqe dashi, salep mëshere	Tubers	Decoction (dried, grinded and then decocted in water)	Cold/cough/flu/sore throat	H
Origanum vulgare L.	Lamiaceae	Rigon	Flowering aerial parts	Tea	Vomiting	L
					Abdominal pains	L
					Laryngitis/ cough	M
Papaver rhoeas L.	Papaveraceae	Lule kuqe, peperunde	Flowers	Tea	Sedative	M
Papaver somniferous L.	Papaveraceae	Afion, bozhure	Flowers,seeds	Tea	Sedative	L
Pelargonium zonale (L.) L'Hér.	Geraniaceae	Mëllagë	Petiole of leaf	Fresh with olive oil	Constipation	M
Petroselinum crispum (Mill) Fuss	Apiaceae	Majdanoz	Leaves	Tea	Urinary tract inflammations	L
Pinus nigra J.F.Arnold	Pinaceae	Pishë e zezë	Early-stage female cones	Decoction	Kidney disease	L
Plantago lanceolata L.	Plantaginaceae	Bar i të prerit, gjethe delli	Leaves	Fresh leaves are crushed and placed on the wound	Stop bleeding/ wound healing, skin infections	M
Platanus orientalis L.	Platanaceae	Rrap	Pith (soft inner core of the twig)	Decoction	Kidney diseases	L
Portulaca oleracea L.	Portulacaceae	Bordullak	Aerial parts	Tea	Kidney diseases	L
Primula veris L.	Primulaceae	Aguliçe	Aerial parts	Tea	Bronchitis/ expectorant	H
Prunus avium (L.) L.	Rosaceae	Qershi	Cherry stem	Decoction	Kidney stones	H
Prunus spinosa L.	Rosaceae	Kullumbri, kurumblli	Fruits, flowers	Decoction	Cough/flu/sore throat	M
					Recreational tea	H
Punica granatum L.	Lythraceae	Shegë	Epicarp	Tea	Diarrhoea	M

Pyrus communis subsp. *pyraster*	Rosaceae	Dardhulkë, dardhë e egër, meçkë	Fruits	Eaten raw or compote	Constipation	L
Rosa canina L.	Rosaceae	Bythëkromë, shipa, shipkë, trëndafil i egër, xinxife	Pseudo-fruits	Decoction	Urinary disorders/ infections	H
					Cough/flu/sore throat	H
					Diuretic	M
					Recreational tea	H
Rubus ulmifolius Schott. *Rubus fruticosus* Lour.*	Rosaceae	Ferrë, man i egër, manaferrë	Leaves	Tea	Diarrhoea	H
					Heart diseases	M
					Cough/sore throat/tonsillitis	M
Salix eleagnos Scop	Salicaceae	Shelgu i zi	Bark	Decoction	Blood thinner	L
					Diabetes	L
					Sciatic nerve	L
Salvia officinalis L.	Lamiaceae	Bedunicë, cfagë, sherebelë	Aerial parts	Tea	Respiration	M
					Tonsilitis	M
Salvia rosmarinus Spenn.	Lamiaceae	Rozmarinë	Aerial parts	Tea	Cold/cough	L
					General health improving	L
				Topically (boiled and apply)	Hair strengthening	L
				Ointment based on olive oil (exposed to the sun for 40 days)	Body tanning ointment	L
Sambucus nigra L.	Viburnaceae	Shtog	Flowers	Tea	Cold/cough/flu	H
					Lungs	M
Secale cereale L.	Poaceae	Thekër	Seeds	Decoction	Treatment for intestinal parasites	L
Sempervivum tectorum L.	Crassulaceae	Bar veshi	Leaves	Squeezed, topically applied	Ear ache	L
Sideritis raeseri Boiss. & Heldr.	Lamiaceae	Çaj mali	Aerial parts	Decoction	Cough/cold/flu	H
					Improving general health	H
					To strengthen the organism/ immunity	H

Silybum marianum (L.) Gaertn.	Asteraceae	Gjembaç, gjemb gomari	Ripen seeds	Decoction	Kidney diseases / kidney stones	M
Solanum lycopersicum L.	Solanaceae	Domate	Fruits	Topically (sauce)	Burns	L
				Topically (baked)	Against infections	L
Solanum tuberosum L.	Solanaceae	Patate	Tubers	Topically (cut in cycle slides and put for 2-3 hours on the eye)	Eye ache from strong lighting (welding)	M
Symphytum officinale L.	Boraginaceae	Kufilmë	Roots	Ground and placed on the area where there is pain	To relieve various pains (muscle and joint problems, bruises and fractures)	L
Taraxacum officinale F. H. Wigg.	Asteraceae	Lule gjarpëri, qumështore, radhiqe	Aerial parts, roots	Decoction	Blood depurative/ blood system	M
					Decrease cholesterol	L
					Diabetes	L
Teucrium capitatum L.	Lamiaceae	Bar majasëlli	Aerial parts	Tea	Haemorrhoids	M
Tilia cordata Mill., *T. tomentosa* Moench, *T. platyphyllos* Scop.*	Malvaceae	Bli	Flowers	Tea	Respiratory disorders (cold/ cough/flu/sore throat)	M
					Improving general health	M
Trifolium pretense Schreb.	Fabaceae	Trifil i kuq	Flowers	Tea	Recreative tea	L
					Hypertension	L
					Headache	L
Triticum aestivum L.	Poaceae	Grurë	Seeds	Boiled	To increase breast milk production	L
Tussilago farfara L.	Asteraceae	Thundër mushkë, lule gomari, lule verdhë, gjurmë mushke	Leaves	Tea	Cough, pulmonary diseases	M
			Leaves and flowers	Fresh material applied topically as a poultice	Haemorrhoids	L
Ulmus glabra Huds.	Ulmaceae	Vidh, vithi i malit	Bark	Topically applied (boiled until it becomes a gel-like mass)	Skin diseases	M
					Burn wounds	H
				Decoction (drinking)	Cold/cough/tonsillitis	L
					Stomachache	M

Urtica dioica L.	Urticaceae	Hithër, hithje, ithkë	Aerial parts	Topically (boil and wash)	To strengthen hair and fight dandruff	L
				Tea	Decrease cholesterol	M
Vaccinium myrtillus L.	Ericaceae	Boronicë	Fruits	Tea, juice, or eaten raw	Recreational tea	M
				Tea	Immunity	L
Valeriana officinalis L.	Caprifoliaceae	Valeriana	Leaves	Tea	Menstruation, gynecological diseases	L
Verbascum thapsus L.	Scrophulariaceae	Bar peshku	Flowers	Tea	Respiratory disorders, asthma	L
Viola odorata L.	Violaceae	Manushaqe	Flowers	Tea	Respiratory disorders	L
Viscum album L.	Santalaceae	Vjeshtull, vjezhdull	Aerial parts	Decoction	Hypertension, cardiovascular system diseases	M
Zea mays L.	Poaceae	Misër	Silks	Tea	Kidney diseases/ kidney stones	H
			Grains	Boiled (given to mothers in lactation)	Improve breast milk (galactagogue)	L

* - "Ethnospecies‖ distinct biological species that are treated as a single species by the local community; CF – Citation Frequency: L – low, M – medium/, H – high.

FOLKLORE AND INNOVATION: A CONCEPTUAL FRAMEWORK FOR INTEGRATING FOLK TALES INTO STEAM PROJECTS IN PRIMARY EDUCATION

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Abstract

The contemporary educational context necessitates teaching methods that bridge cultural heritage with technological innovation. This conceptual paper advocates for the importance of Albanian Folk Tales as a rich narrative resource for fostering critical and creative thinking. The primary aim is to establish a detailed theoretical and methodological framework for the functional integration of folk tales into STEAM (Science, Technology, Engineering, Arts, Mathematics) projects at the primary education level.

The paper explores the structural synergy between the narrative components (conflict, resolution, magical elements) and the Engineering Design Process (EDP), which serves as the core of STEAM methodology. It posits that folk tales, by presenting complex, problem-based challenges, function as an ideal starting point for creative tasks that involve building engineering prototypes, scientific analysis of problem situations, and artistic design.

This research contributes a novel conceptual model that demonstrates the explicit mapping of narrative elements onto EDP phases. Through concrete illustrations, the paper details how specific story elements (e.g., the challenge of building a stable bridge for the hero) can be converted into robust, cross-curricular STEAM projects. Furthermore, it proposes an initial assessment framework necessary for measuring students' creative and problem-solving abilities within this context.

Ultimately, this paper aims to serve as a guide for educators and curriculum designers, demonstrating that oral heritage is an essential tool for narrative-driven STEAM education.

Keywords: *Interdisciplinary pedagogy, primary education, folk tales, 21st-century skills, STEAM*

I. THEORETICAL FRAMEWORK AND CONCEPTUAL FOUNDATIONS

This paper argues that the folk tale serves as a natural narrative foundation for the functional integration of STEAM (Science, Technology, Engineering, Arts, and Mathematics) in the primary education cycle.

I.1. The didactic value of folklore and the fairy tale

The scientific literature on folklore and pedagogy emphasizes the integral role of folk tales as a significant didactic structure (Goraya, et al, 2025, pp. 187-189; Azamovich, 2021, pp. 10-12). The fairy tale functions as a primary medium for the transfer of cultural knowledge, moral norms, and the cognitive development of children. In the Albanian context, folk tales serve as an archive of oral tradition and a primary means for early identity construction (Shapllo, 1989, pp. 73–75).

The content, rich with symbols, encourages symbolic thinking. Specifically, the clear conflict and the demand for resolution within the tale expose students to the basic process of design and ideation of solutions (Kulikovskaya & Andrienko, 2016, pp. 53-57). This makes it an ideal starting point for problem-oriented approaches, such as the STEAM model (Erol, et al. 2023, pp. 243-258).

I.2. STEAM as an integrative paradigm

The STEAM approach (Science, Technology, Engineering, Arts, Mathematics) is the transformative paradigm for developing 21st-century competencies. In contrast to the previous STEM approach, the integration of the A (Art/Narrative) component is essential. This highlights that science and engineering require creative thinking, design, and effective communication (Wilson, 2021, pp. 445-457; Moore, 2021, pp. 45-52). Creativity, as the ability to generate original and valuable ideas, is developed primarily through the *Engineering design process* (EDP).

The ability to articulate a problem, to imagine solutions *(divergent thinking),* and to communicate these narratives largely depends on the laernes's capacity to create conceptual connections between different fields (Meletiou-Mavrotheris, et al., 2022, p. 1). Early didactic theory, embodied by Dewey, Tyler, and Bloom, emphasizes the importance of subject integration to reflect real-world experiences and deepen learning. Therefore, the arts have played a key role as a natural cross-curricular facilitator, making the integration of (A) the most effective solution for improving results through a deep interdisciplinary understanding (Fattal, 2019).

I.3. Structural compatibility: The fairy tale and the EDP

There is a logical and structural compatibility between the folk tale narrative and the EDP cycle, which is the practical essence of STEAM. The fairy tale is fundamentally a narrative structured around problem-solving, where the protagonist faces a challenge (the problem) and must develop a creative solution (design/engineering) to achieve the goal. This analogy offers a natural framework for engaging primary education students in engineering thinking (Lwin, S. M. 2019, pp. 1-14).

EDP vs. Fairy Tale: The problem definition phase in EDP is represented by the main conflict of the fairy tale. The ideation phase is reflected in the fantastic solutions and planned actions of the hero.

Thus, fairy tales are transformed from passive reading into an active stimulus for engineering, mobilizing imagination (A) and logic (S, T, E, M) simultaneously. This model suggests that the curricular goals of STEAM can be achieved even through oral heritage (Wahyuningsih, 2020, pp. 33-44).

Furthermore, this compatibility is rooted in the syncretic nature of folklore, where oral narrative, visual symbolism, and practical problem-solving were originally inseparable. In ancient traditions, the act of building a tool or a shelter was often accompanied by ritual and storytelling, mirroring the holistic and interdisciplinary nature of modern STEAM education. Thus, the fairy tale does not just mimic the EDP; it originates from a world where Art and Engineering were two sides of the same coin.

II. CONCEPTUAL PROPOSAL METHODOLOGY

This paper presents a conceptual proposal and is not based on the empirical collection of new data. The aim is to articulate a new didactic framework, positioning folklore as a narrative foundation for the functional integration of STEAM.

II.1. Theoretical basis of the model

The theoretical basis of this proposal is the synthesis of three main areas:

Interdisciplinary learning theory: Dewey, Tyler, Bloom emphasize that students learn better by connecting concepts from different disciplines to real-life problems (Fattal, 2019, p.2; Colucci-Gray, et al., 2019, p.6).

Engineering design theory as narrative: The approach serves as a structure for problem-solving, being open to many possible solutions and a stimulus for thinking (Cross, 1994). As observed in the literature, every problem expressed in folk tales (conflict, resolution) reflects the steps of the EDP (ask, imagine, plan, create, test, improve).

Value of cultural heritage (Folklore): Fairy tales are treated as rich resources containing complex socio-cultural and scientific-engineering dilemmas, offering a local context.

II.2. Conceptual design methodology

The methodology followed in this paper is an analytical-conceptual approach (McTaggart, 2021), which aims for the functional mapping of the tale's narrative elements onto the phases of the EDP. This process includes:

Conflict identification: Selection of albanian folk tales where the conflict can be solved through a physical, scientific, or technological solution.
Component mapping: Each element of the tale is mapped onto the specific STEAM component, an approach supported by studies on the use of narrative and conceptual maps in engineering education (Dymond & Bhamra, 2003, pp. 884–892).
Didactic illustration: Creation of a structured (tabular) model, explaining how the teacher can apply each tale throughout the EDP phases. The three selected illustrations serve to demonstrate the diversity and applicability of the model.
This proposal does not aim to test the model's efficiency but to provide a strong theoretical basis for future empirical studies.

III. ILLUSTRATION AND MAPPING OF THE CONCEPTUAL PROPOSAL (EDP-NARRATIVE PHASES)[1]

Based on the conceptual framework and the functional mapping methodology argued in section II, this section presents our didactic proposal. The mapping of folklore onto the EDP is made applicable through a four-step process, where the tale's narrative elements (conflict, preparation, action, lesson) correspond directly to the essential EDP phases (define, ideate, create, improve).
The selection of specific examples from Albanian folklore was based on their potential to map narrative elements across different STEAM disciplines. Thus, the tales *Dheu është Flori* (The Earth is Gold) and *Dielli dhe Hana në Pasë* (The Sun and the Moon in Pasë) were chosen for their clear emphasis on science, measurement, and the need for solutions involving changing variables. Meanwhile, the tale *Ura e Dhelprës në Dibër* (The Fox's Bridge in Dibër) offers a classic engineering challenge and a basis for discussing structural stability and engineering ethics. These narratives offer a diverse and

[1] The fairy tales are taken from: ISH. (1954). *Pralla popullore shqiptare.* ―Mihal Duri‖, Tiranë.

contextualizing approach, making our model applicable across all STEAM components.

III.1. DHEU ËSHTË FLORI (The Earth is Gold) (Science/Mathematics)

The tale *Dheu është flori* offers an ideal narrative basis for introducing the scientific concept of agronomic optimization and sustainable work. The story, where three boys discover that wealth lies in the depth and quality of tilling the soil, serves as a powerful metaphor for agricultural engineering and the phase of variable definition (S). It transforms the search for treasure into a task that requires precise measurement, scientific experimentation, and mathematical analysis, focusing on the importance of systematic thinking for yield increase, consistent with the work ethic of our cultural heritage.

III.2. DIELLI DHE HANA NË PASË (The Sun and the Moon in Pasë) (Science/Engineering/Arts)

The second illustration connects Folklore with space science (Astronomy) through the tale *Dielli dhe hana në Pasë*. The conflict surrounding Hyll-Terzi‘s inability to cut a fixed garment for the Moon, which constantly changes shape, creates a perfect challenge for engineering design and art. This task requires students first to understand the phases of the moon with scientific accuracy (S) and then to design a flexible prototype or model (E & A) that can adapt to the changes in shape, thus emphasizing how technology must solve problems arising from natural phenomena.

III.3. URA E DHELPRËS NË DIBËR (The fox's bridge in Dibër) (Structural engineering)

The classic tale *Ura e Dhelprës në Dibër* addresses repeated engineering failure and the importance of a strong foundation (trust/integrity), making it essential for a project on structural engineering. It requires students to analyze the reasons for the bridge's collapse (principles of science, such as force and weight) and to design an engineering model (E) that resists destructive forces. This project uses the narrative of sacrifice and trust to discuss durability and excellence in engineering design, linking ethical values with the construction process.

III. 4. MAPPING THE FAIRY TALE TO STEAM PHASES

Table 1. *Mapping the Tale ―Dheu është Flori‖ onto the Engineering Design Process (EDP) Phases*

EDP Phase (Fairy Tale)	Engineering definition	Narrative element (The Earth is gold)	STEAM activity
1. Define the problem	What is the main task or engineering challenge?	How can the land and the boys work be made more fertile and productive by finding the ―treasure‖?	Science/Mathematics (S/M): Identify variables affecting soil fertility (pH, water quality, tilling depth).
2. Imagine & Plan	What alternative solutions or technical tools can be used?	The boys plan deep excavation of the land and the ―invention‖ of more efficient tools for this purpose.	Technology (T): Draft a land movement plan. Create a calculation of the amount of tilled soil.

3. Create & Test	Build and test the prototype	Excavation (building the ―prototype‖) and planting the seeds. Harvesting the yield (testing the solution).	Engineering (E): Build a simple model of soil tilling with different depths and measure the yield (Scientific Analysis).
4. Improve & Reflect	How can the solution be made more efficient, reflecting the moral lesson?	Reflection that the treasure was ―sustainable work‖ and ―optimization‖.	Reflection (A/S): Determine and explain the formula for the best yield (M).

Table 2. *Mapping the Tale "Dielli dhe Hana në Pasë" onto the Engineering Design Process (EDP) Phases*

EDP Phase (Fairy Tale)	Engineering Definition	Narrative element (The Sun and the Moon in Pasë)	STEAM activity
1. Define the problem	What is the main task?	Hyll-Terzi (The Engineer) must design a garment for the Moon which constantly changes size and shape.	Science/Mathematics (S/M): Empirical observation of lunar morphology and periodic cycles and measure its change over a full cycle.

2. Imagine & Plan	What solutions require flexibility or dynamic change?	Designing a ―chameleon‖ prototype that can expand and contract or change shape.	Ideation (A/T): Sketch flexible designs (e.g., with Velcro, elastic bands, movable elements). Create a conceptual map of the Moon's change.
3. Create & Test	Build and test the engineering model.	Building a prototypical ―garment‖ from paper or other material that can adapt to different shapes (Construction).	Engineering (E): Build the prototype and test if it fits the moon phase models created by the students.
4. Improve & Reflect	How can the design be improved, and what did we learn from Terzi's failure?	Reflection on how engineering design must account for continuous change (unknown variables).	Reflection (A/S): Discuss/Draw the role of shape and symmetry in successful design.

Table 3. *Mapping the Tale ―Ura e Dhelprës në Dibër‖ onto the Engineering Design Process (EDP) Phases*

EDP Phase (Fairy Tale)	Engineering definition	Narrative element (The Fox's Bridge in Dibër)	STEAM activity

1. Define the problem	What is the main task?	The repeated failure of the bridge to remain standing. The need for a strong structural foundation.	Science/Engineering (S/E): Analyze the physical principles that lead to the collapse of a bridge (force, weight, material, foundations).
2. Imagine & Plan	How can structural stability of the bridge be ensured, avoiding failure?	Designing a structure that integrates durable materials and avoids the weaknesses of previous constructions (Engineering/Materials).	Ideation (E/A): Sketch different bridge designs (beam, arch, suspension). Discuss the ethical value of quality construction (Arts/Society).
3. Create & Test	Build the prototype and test its stability	Building a model of bridge using different materials. Testing the bridge's resistance to load (weight) and destruction (simulation).	Engineering (E/M): Build the bridge (from sticks or recycled materials) and measure the load-bearing capacity (M) before it collapses.
4. Improve & Reflect	How can the prototype be revised for maximum durability?	Reflection that values (integrity/ethics) impact physical durability	Reflection (A/E): Improve the foundations and structure. Create a construction ―integrity code‖ (ethics) for the project.

IV. CONCLUSIONS AND RECOMMENDATIONS

This conceptual paper demonstrates that oral heritage is an effective, culturally situated catalyst for the STEAM approach in primary education. By aligning the narrative structure of folk tales with the *Engineering Design Process* (EDP), we transition from treating folklore as passive material to an active didactic tool. This synergy fosters divergent thinking and creative problem-solving competencies that Henriksen (2017, pp. 11-26) identifies as essential for transdisciplinary learning.

The proposed framework advocates for that the *Arts* component (A) is not merely aesthetic but, as Lwin (2019, pp.1-14) suggests, a cognitive scaffold that facilitates engagement with complex engineering tasks. Beyond its pedagogical utility, this model functions as a form of cultural resilience, ensuring that local identity remains at the heart of technological progress. It proves that oral heritage can drive the development of 21st-century technical literacy, transforming tradition into a catalyst for innovation.

As a direct recommendation, national curricula should systematically incorporate folklore as a source for scientific inquiry. However, the effectiveness of this model requires empirical validation. Future research should employ quasi-experimental designs to measure the impact of narrative mapping on students' flexibility and originality, providing tangible data for educational reform.

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ARTIFICIAL INTELLIGENCE AND SCHOOL LEADERSHIP: EVIDENCE, CHALLENGES, AND IMPLICATIONS FOR THE ALBANIAN CONTEXT

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Abstract
Society 5.0, conceptualized as a human-centered paradigm that integrates advanced digital technologies to address complex societal challenges, provides a critical lens for re-examining school leadership in the era of artificial intelligence (AI). Within this broader transformation, Education 4.0 has emerged in developed countries as a response to evolving labor-market demands and is increasingly influencing educational agendas in developing systems. As these technological and societal shifts converge within educational institutions, school leaders assume a central role in mediating, interpreting, and operationalizing change in practice. The integration of AI into education is progressively reshaping leadership practices by enhancing decision-making processes, administrative efficiency, and pedagogical innovation. However, empirical evidence from the Albanian context remains limited, particularly regarding how school leaders engage with AI in their professional practice. This study adopts a qualitative research design, employing in-depth interviews and a three-stage thematic content analysis to explore school leaders' practices and perceptions of AI integration. Data were collected from 25 K–12 school leaders in Korça and surrounding areas. The findings indicate that AI contributes to data-informed decision-making, resource management, and the enhancement of instructional creativity. Nevertheless, significant challenges persist, including limited digital infrastructure, insufficient AI-related competencies, ethical concerns, and the absence of comprehensive policy frameworks.

Keywords: *Artificial Intelligence (AI), Chat GPT, School Leadership, Digital Transformation, Education 4.0*

Introduction

The transformation of every society is reflected and shaped within the educational environment of the school. In the era of Society 5.0, introduced by the Japanese government (Cabinet Office, 2021; Narváez Rojas et al., 2021), the dynamism of this transformation is generating substantial demands for change across educational systems. At the same time, as noted in Kafa (2025), the pandemic crisis has acted as a catalyst for a deeper exploration of crisis management within school organizations (Berkovich & Hassan, 2024; Striepe & Cunningham, 2022; Bush, 2021), while also significantly influencing related domains such as digital skills and literacy (Pressley et al., 2023; Alajmi, 2022).

Societies undergoing such transformation increasingly demand a redefinition of the role of schooling and the education of individuals at a higher and more complex level. Within this dynamic context, the future appears uncertain, requiring younger generations to be better prepared with the competencies necessary to navigate and respond effectively to emerging challenges.

Consequently, schools must promote greater collaboration between staff and students, expand competencies, and work toward narrowing gaps in learning outcomes. Moreover, they should encourage learners to think and act beyond disciplinary boundaries and to actively contribute to innovation in an evolving technological landscape.

This transformation necessitates the development of a new philosophy of school leadership, particularly in developing countries. Managing change requires schools to evolve into learning organizations. As Peter M. Senge argues, in a learning organization, principals adopt a transformational leadership style, acting as designers, stewards, and teachers. Leaders are responsible for building organizations in which individuals continuously expand their capacities to understand complexity, clarify vision, and improve shared mental models; in this sense, they are fundamentally responsible for fostering organizational learning (Senge, 2006, p. 340). Furthermore, a central aspect of leadership in learning organizations involves integrating vision, values, and purpose with systems thinking and mental models, thereby creating the synergy necessary for significant breakthroughs in learning (Senge, 2006, p. 343). Senge (2006, p. 345) also refers to this evolving role as the ―new work‖ of leaders.

This ―new work‖ in educational leadership requires the ability to rapidly adapt to the changing demands of transformational leadership, teachers, and students, with the ultimate goal of improving student outcomes (Bixler & Ceballos, 2025). At the same time, the internal and external environments of schools are continuously shifting, further increasing the complexity of leadership practice.

Since its emergence, artificial intelligence (AI) has become a powerful tool across multiple domains, including education. AI is increasingly applied in educational leadership and administration, enabling leaders to make more informed decisions, enhance administrative processes, and improve teaching and learning practices. In particular, AI is contributing to the effective and efficient management of educational institutions (Igbokwe, 2024). Following the introduction of ChatGPT in 2022 and the rapid development of large language models (LLMs), the use of AI has expanded significantly. However, important questions remain: how is AI actually used in leadership practice, in which domains is it most prominent, to what extent do school leaders trust these tools, and how do they foster a culture of AI use among staff and the wider school community within the Albanian context?

This study aims to examine how AI and leadership are increasingly positioned within the literature and research on educational leadership, driven by the demand for greater effectiveness in Education 4.0. At the same time, it seeks to provide an empirical overview of how these concepts are understood and enacted within the Albanian school context, focusing on a case study of pre-university school leaders in the city of Korça.

In Albania, although digitalization efforts have accelerated, empirical research on AI specifically within school leadership remains limited. Existing studies have primarily focused on ICT use, teacher training, and broader digital challenges, leaving a significant gap in understanding how school leaders engage with AI tools in their everyday professional practice (Xhaferi & Kadiu, 2020). This gap underscores the importance of further research exploring leaders‘ perceptions, practices, and needs within the Albanian educational context.

Literature review

Society 5.0 calls for a transformation of education systems that aligns with the broader societal shift toward human-centered technological integration. In this context, Education 4.0 reflects global efforts to align schooling with the demands of the Fifth Industrial Revolution, emphasizing digitalization, automation, and data-driven learning (Schwab, 2017; OECD, 2019). While developed countries often benefit from well-established infrastructures and coherent policy frameworks, developing contexts continue to face uneven implementation due to resource constraints and limited digital readiness (UNESCO, 2021).

The education system plays a critical role in interpreting societal demands and anticipating the preparation of individuals to meet these demands and go beyond them. School principals are particularly influential in promoting innovation, both through strategic leadership and by modeling practices that align with evolving societal developments. Research indicates that leadership in the digital era encompasses not only administrative efficiency but also pedagogical guidance and strategic planning for technology integration (Ainley & Carstens, 2018; Fullan, 2020). In this regard, school leadership traditionally focuses on human decision-making, administrative expertise, regulatory frameworks, and leadership styles.

The integration of Artificial Intelligence (AI) into education is expanding rapidly, supporting areas such as predictive analytics, administrative automation, and instructional innovation (Holmes et al., 2022). Studies highlight multiple benefits, including improved decision-making, personalized learning, and a reduction in administrative burden (Luckin, 2018, Avci et al, 2025, p.52). However, the incorporation of AI in education remains a significant challenge. In response to the demands of Society 5.0, the concept of Education 5.0 has emerged, emphasizing personalized education through artificial intelligence and big data. The application of intelligent technologies is expected to transform traditional teaching models, making learning more efficient, adaptive, and customized (Zhang & Leong, 2024).

Despite these advancements, significant challenges persist, particularly in low-resource settings. These include inadequate digital infrastructure, limited AI literacy, ethical concerns, and the absence of comprehensive national policy frameworks (Williamson & Eynon, 2020; Holmes et al., 2022). This situation is largely reflective of developing countries such as Albania.

In Albania, although digitalization efforts have accelerated in recent years, empirical research on AI specifically within school leadership remains limited. Existing studies primarily address ICT use, teacher training, and broader digital challenges, leaving a notable gap in understanding how school leaders engage with AI tools in their everyday professional practice (Xhaferi & Kadiu, 2020). This gap underscores the importance of further research exploring school leaders' perceptions, practices, and needs within the Albanian educational context.

Theoretical Framework

The extent to which K–12 school principals adopt and integrate artificial intelligence (AI), as well as how they model its use for teachers and students, can be effectively examined through two complementary theoretical perspectives. This study is grounded in Diffusion of Innovations and Transformational Leadership.

The first perspective, developed by Everett M. Rogers (1995), conceptualizes innovation adoption as a process through which an individual or decision-making unit progresses from initial awareness of an innovation to forming an attitude toward it, making a decision to adopt or reject, implementing the innovation, and ultimately confirming that decision (Rogers, 1995, p. 205–206). Furthermore, this theory identifies five categories of adopters within a social system, distributed along a temporal continuum: innovators, early adopters, early majority, late majority, and laggards.

According to Rogers, individuals adopt innovations at different rates: innovators (2.5%) are risk-takers and the first to experiment with new technologies; early adopters (13.5%) act as opinion leaders who facilitate broader acceptance; the early majority (34%) adopt innovations after observing their effectiveness; the late majority (34%) tend to be more cautious and adopt only when innovations become mainstream; and laggards (16%) are the last to adopt, often only when change becomes unavoidable (Rogers, 1995). This framework provides a valuable lens for understanding how school leaders in the Albanian context engage with AI at different stages of adoption.

The second theoretical perspective is transformational leadership, originally conceptualized by James MacGregor Burns (1978) and further developed by Bernard M. Bass (1985). Transformational leadership offers a robust framework for understanding how school leaders influence teachers‘ engagement with AI in educational practice. It emphasizes leaders‘ capacity to inspire, motivate, and intellectually stimulate followers toward innovation and change. In the context of AI integration, this perspective is particularly relevant, as the adoption of emerging technologies requires not only technical competence but also shifts in beliefs, attitudes, and professional practices.

Through inspirational motivation, school principals articulate a shared vision of AI as a tool for enhancing administrative efficiency, supporting data-informed decision-making, and enabling personalized learning, thereby fostering collective commitment among teachers. Intellectual stimulation encourages educators to experiment with AI applications across instructional and organizational domains, while individualized consideration addresses varying levels of digital competence through targeted support and professional development. At the same time, idealized influence positions the principal as a role model for the ethical and responsible use of AI, strengthening trust and reducing resistance to change.

Empirical research highlights that school leadership influences teaching and learning indirectly by shaping organizational conditions and teacher practices (Leithwood et al., 2020). In technology-rich environments, this role becomes even more critical, as AI is increasingly used to support personalized learning, streamline administrative processes, and enhance data-informed decision-making (DeMatthews et al., 2026). By fostering a shared vision, encouraging experimentation, and supporting capacity building, transformational leadership enables principals to influence teachers‘ adoption of AI in ways that are pedagogically meaningful, organizationally effective, and ethically grounded.

Methodology

This study adopts a qualitative research design to explore how school leaders perceive and enact the integration of artificial intelligence (AI) within K–12 educational settings. A qualitative approach is appropriate for examining complex, context-dependent phenomena such as leadership practices and technology adoption, as it enables an in-depth understanding of participants‘ experiences and interpretations (Creswell & Poth, 2018). The study follows an exploratory and interpretive orientation, aiming to generate contextually grounded insights into leadership practices and patterns of innovation adoption, as conceptualized within Diffusion of Innovations and Transformational Leadership.

The research was conducted in K–12 educational institutions in Korça and surrounding areas in Albania, a context characterized by ongoing efforts toward digital transformation. Within such environments, school leaders are increasingly required to navigate innovation processes, support staff development, and respond to emerging technological demands.

The study involved a purposive sample of 25 school leaders, including principals and vice-principals. Participants were selected based on their leadership roles and their involvement in decision-making processes related to school development and the use of digital tools. This sampling strategy aligns with qualitative research practices that prioritize information-rich cases (Patton, 2015), while also enabling the inclusion of participants representing different levels of engagement with innovation processes.

Data were collected through in-depth semi-structured interviews. The interview protocol was designed to explore five key dimensions: (1) the use of AI in daily leadership practices; (2) perceived benefits of AI; (3) challenges and barriers to its integration; (4) required competencies and professional development needs; and (5) policy and institutional support. Within these dimensions, participants were invited to describe how AI is applied in areas such as administration, decision-making, and teaching support; to reflect on its impact on efficiency and instructional processes; and to identify structural and individual barriers, including infrastructure limitations, skill gaps, and attitudinal resistance.

In addition, the interview design incorporated questions aimed at capturing variations in participants‘ engagement with innovation, including their willingness to experiment with AI tools, their strategies for encouraging teachers‘ adoption, and their approaches to fostering a culture of responsible and ethical AI use within the school community. These elements allowed the data collection process to remain sensitive to both transformational leadership practices and patterns of innovation adoption, without imposing predefined categories. Semi-structured interviews are particularly suitable for such inquiry, as they allow flexibility while maintaining analytical focus (Kvale & Brinkmann, 2009). All interviews were conducted with informed consent, recorded, and transcribed verbatim.

The data were analyzed using a thematic content analysis approach, following a systematic and iterative three-step process (Braun & Clarke, 2006). In the first phase, open coding was conducted to identify meaningful units within the data. This inductive process remained closely grounded in participants‘ language, capturing key elements related to AI use, leadership practices, and individual experiences with technology.

Initial coding examples from AI-related responses included:

Artificial Intelligence / ChatGPT usage: (1)using AI tools to prepare documents , (2)extracting teaching techniques or instructional ideas, (3)personal familiarity levels: ―I am not very familiar with it‖, (4)frequency of use: once or twice a day for professional tasks, (5)device preference: chatbots are used mostly via cellphone, and less frequently through a laptop.

In the second stage of coding, codes were refined and grouped into more specific AI-related categories based on functional use and technological context. (1)*AI technologies referenced:* OpenAI, Generative AI (GenAI), particularly ChatGPT, due to the capabilities of Large Language Models (LLMs), (2) *Primary applications*: mostly administrative tasks, personal work management, and less frequently for teaching or instructional planning

In the third stage of coding, these categories were further synthesized to identify broader patterns and interpretive insights:

Emerging pattern. AI adoption in school leadership is gradually emerging, primarily supported by growing administrative applications

Development needs. Further improvement of digital infrastructure and enhancement of principals‘ AI-related competencies is required to expand AI use for instructional and organizational purposes.

These iterative coding stages allowed the research team to move from detailed observations of participants‘ AI use to broader conceptual categories, which then informed the thematic analysis and interpretation in light of the theoretical framework. Leadership-related practices were examined through transformational leadership dimensions (Burns, 1978; Bass, 1985), while variations in AI engagement were interpreted through Rogers‘ diffusion of innovation theory (Rogers, 2003).

Table 1. Coding Process

Step	**Codes / Observations**	**Category / Functional Use**	**Emerging Pattern / Interpretation**
Initial Coding	Using AI tools to prepare documents	Practical use of AI	AI is applied in daily professional tasks
	Extracting teaching techniques or instructional ideas	Instructional support	Limited use for pedagogical purposes
	Personal familiarity: ―I am not very familiar with it‖	Competence / digital literacy	Varying levels of AI familiarity among leaders
	Frequency: once or twice a day for professional tasks	Engagement level	AI use is moderate and task-specific
	Device preference: mostly via cellphone, less on laptop	Access / modality	Mobile-based access dominates AI usage
Second Stage Coding	AI technologies referenced: OpenAI, Generative AI, ChatGPT (LLM)	Technological context	Leaders primarily rely on advanced AI tools such as ChatGPT
	Primary applications: administrative work, personal management, rarely teaching	Functional application	AI is mostly used for administrative efficiency rather than pedagogy
Third Stage Coding	AI adoption in school leadership gradually emerging	Adoption pattern	AI integration is in early stages, aligned with Rogers‘ early adopters / early majority categories
	Need for infrastructure and competency development	Development / capacity	Broader adoption requires better digital skills and school infrastructure

Step	Codes / Observations	Category / Functional Use	Emerging Pattern / Interpretation
			AI use contributes to leadership efficiency and data-informed decision-making

Findings

This chapter presents the findings from the qualitative study exploring the integration of artificial intelligence (AI) in K–12 school leadership in Albania. Findings are organized according to the main dimensions examined in the interviews: AI use, perceived benefits, challenges, competencies, and policy/support needs.

Use of AI in Daily Leadership

Principals reported early-stage adoption of AI, primarily for administrative tasks. Tools such as ChatGPT and other generative AI platforms were used occasionally, often once or twice per day. Approximately 15% of principals, reflecting the early adopter category in Rogers‘ model, demonstrated regular engagement with AI tools. These early adopter principals acted as opinion leaders, experimenting with AI and influencing broader adoption among their peers. Most principals accessed AI through mobile devices, while laptops were used less frequently. Several principals admitted limited familiarity with AI, suggesting a combination of early experimentation and cautious engagement.

Perceived Benefits

Principals highlighted practical advantages of AI, particularly related to efficiency and administrative support:

Time-saving and efficiency: AI assisted in preparing documents, drafting communications, summarizing information, and generating instructional ideas.

Administrative support: AI reduced routine workload, enabling smoother school management.
For example, one principal noted, ―I will have more time if I use ChatGPT; it gives automatic answers‖ (Principal 12), while another stated, ―It will help us finish administrative tasks faster, even automatically, and we can refer to it whenever needed‖ (Principal 19).
These reflections align with the early adopter category, demonstrating both experimentation and advocacy for AI tools.

Main Challenges
Despite recognizing AI‘s potential, principals highlighted several barriers:
Limited digital competence: many principals lacked confidence in navigating or critically evaluating AI tools.
Technological infrastructure limitations: schools were not fully equipped to support advanced AI applications.
Restricted pedagogical use: AI was rarely applied to instructional leadership, partly due to uncertainty about meaningful integration.
Personal unfamiliarity and concerns about reliability: principals hesitated to fully trust AI-generated outputs.
These barriers slow the diffusion of AI adoption, placing most principals in early or late majority categories, as adoption beyond administrative tasks remains limited.

Needed Competencies
Principals emphasized the need for capacity development, including stronger digital skills and practical training on generative AI applications. Key competencies included:
Critically evaluating AI-generated content.
Integrating AI into administrative decision-making.
Exploring AI‘s role in instructional and pedagogical leadership.
Around one-third of principals expressed readiness to enhance their skills actively (early majority), suggesting they could act as change

agents, promoting wider adoption in line with Rogers‘ theory and supported by transformational leadership principles.

Policy and Support Needs

Principals called for structured institutional and policy support, highlighting:

National and local guidelines on ethical and responsible AI use.

Investment in school infrastructure.

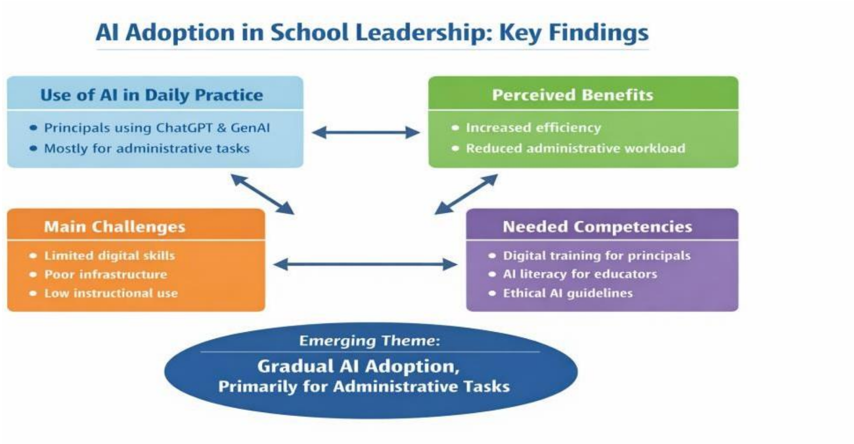
Targeted professional development programs for principals.

Principals emphasized the importance of coherent strategies to enable safe and effective integration of AI into both leadership and instructional processes. Structured guidance is critical for advancing adoption from early adopters to the early majority stage, consistent with Rogers‘ diffusion model.

Overall Theme

The findings indicate that AI adoption among principals in Albanian schools is emerging but still limited. Approximately one-third of principals engage regularly with AI tools, primarily for administrative purposes. Broader integration into pedagogical and instructional leadership is constrained by skills gaps, infrastructure limitations, and limited policy support. Strengthening competencies and providing clear institutional and policy frameworks are essential steps to advance AI-supported leadership. These findings demonstrate the interplay between early adoption, principal advocacy, and the structural conditions necessary to support broader innovation adoption, linking Rogers‘ diffusion model with transformational leadership approaches.

Figure 1. *Conceptual diagram of AI adoption among K–12 school principals, illustrating stages of engagement, leadership strategies, and outcomes in the Albanian context.*



Discussion

Integration with Transformational and Diffusion Perspectives

The study highlights the interplay between transformational leadership and innovation adoption in the context of AI integration. Principals who actively engage with AI not only improve administrative efficiency but also model behaviors that can inspire and guide teachers and staff. Transformational leadership facilitates this process by providing a shared vision, encouraging experimentation, and addressing varying levels of digital competence among staff. These actions help reduce resistance, promote trust, and foster a culture where AI is seen as a tool to enhance both leadership and instructional practices (Leithwood et al, 2020; Schmitz at al, 2023).

By applying Rogers‘ Diffusion of Innovation framework, it becomes evident that early adopters—roughly one-third of the sampled principals—are instrumental in shaping peer perceptions and adoption patterns (Rogers, 2003). Their engagement demonstrates how practical, low-risk applications of AI in administrative tasks can serve as a springboard for broader adoption. Over time, as benefits become visible and competencies improve, these early adopters can influence the early majority, gradually integrating AI into instructional leadership and strategic decision-making (Tyson & Sauers, 2021).

Challenges in Expanding AI Use

Despite these promising patterns, the study confirms several persistent barriers that limit AI‘s broader integration into school leadership: limited digital literacy among principals, underdeveloped technological infrastructure, lack of institutional guidance, and uncertainty regarding the pedagogical application of AI (Bulger, 2016; Selwyn, 2016). These obstacles suggest that AI adoption in Albanian schools is still largely experimental and unevenly distributed. Without systematic support, AI may remain a supplementary administrative tool rather than a transformative element within educational leadership.

Policy and Professional Development Implications

The findings highlight the necessity of multi-level interventions. Professional development programs should focus on technical skill-building, critical evaluation of AI outputs, and ethical application of AI in school contexts (Schmitz et al., 2023; Bulger, 2016). Furthermore, institutional policies and national frameworks are essential to provide clear guidance, ensure responsible use, and facilitate equitable access to AI technologies (Selwyn, 2016). Such policies can help bridge the gap between early adopters and the early majority, accelerating AI‘s diffusion and enabling its application in instructional and strategic leadership domains.

Future Directions and Research Opportunities

This study opens several avenues for further research. Longitudinal studies could examine how early adopter principals influence broader adoption over time and how AI integration evolves as infrastructure and competencies improve (Rogers, 2003; Tyson & Sauers, 2021). Comparative research across regions and school types could identify contextual factors that facilitate or hinder AI adoption. Additionally, exploring the impact of AI on teaching practices, student learning outcomes, and organizational innovation would provide a more holistic understanding of its transformative potential (Selwyn, 2016; Bulger, 2016).

Conclusions

This study shows that AI use among school leaders in the Korça region is at an early stage, characterized primarily by occasional and administratively focused applications. While leaders recognize the potential of AI to save time, support decision-making, and enhance efficiency, around 30% of them use these tools even sporadically. Limited digital skills, lack of pedagogical guidance, and inadequate technological infrastructure continue to constrain broader and more consistent adoption.

The findings highlight the need for targeted professional development, improved school infrastructure, and clear national policy frameworks to guide responsible and effective AI use in educational leadership. Strengthening these areas would not only support principals in integrating AI into daily administrative routines but also open pathways for more meaningful applications in instructional leadership and school improvement.

Overall, the study contributes important insights into the emerging landscape of AI-supported school leadership in Albania and underscores the importance of coordinated efforts to ensure that AI becomes a constructive and equitable part of future educational practice.

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