



ROMANIAN ACADEMY  
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INTERNATIONAL CONFERENCE HERITAGE – IIDEAS

**"HERITAGE CAPITALISATION AND DEVELOPMENT - IDENTITY,  
INNOVATION, DIGITALISATION, ENVIRONMENT, AWARENESS  
AND SECURITY"**

*2025 Online Edition*

<https://www.ien.ro/content/heritage-iideas-conference>

October 30-31, 2025, Bucharest, ROMANIA

**BOOK OF ABSTRACTS**

**Leveraging AI for wider accessibility to innovative products &  
experiences and fostering adapted management models**

**Valentina Vasile**

**Raluca Mazilescu**

**Marius Surugiu**

**Andreea Constantinescu**

*(editors)*



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**BOOK OF ABSTRACTS**  
**of the 3<sup>rd</sup>**  
**International Conference**  
**" *Heritage Capitalisation and Development -***  
***Identity, Innovation, Digitalisation,***  
***Environment, Awareness and Security " -***  
***HERITAGE – IDEAS***

**2025-online edition**

**Leveraging AI for wider accessibility to innovative products &  
experiences and fostering adapted management models**



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### CONFERENCE OBJECTIVE

The goal of the conference is to examine the many facets of heritage capitalization and how it relates to contemporary issues such as digital transitions, energy problems, food crises, and environmental preservation. Heritage capitalization serves as a link between the past and the future in a world of swift



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change and increasing complexity. Our objective is to promote discussions, encourage teamwork, and increase awareness of the ways in which heritage may support sustainable development.

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Andreea Constantinescu, Institute of National Economy, Bucharest, Romania, Senior Researcher - Publication Coordinator



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## KEYNOTE SPEAKERS

### **Oana Mădălina DRIHA, University of Alicante, Spain**



Associate Professor of Applied Economics in the Faculty of Economics, Business, and researcher at the Institute of Tourism Research, as well as at the Institute of International Economy within the University of Alicante, Spain. Oana holds an international PhD in economics, a bachelor's in International Economic Relations (University of Oradea), and another one in Tourism (University of Alicante). Her research interests are focused on energy economics, innovation, tourism economics, climate change, and economic growth. The results of her research are published in more than 20 papers in well-known international journals like Journal of Cleaner Production, Renewable Energy, Resources Policy, or Current Issues in Tourism. She also has vast experience as a project manager in the field of energy transition, sustainable development, sustainable tourism, and climate change in over 45 countries around the world. Oana has been collaborating with different donors like the European Commission, the European Union Intellectual Property Office, the Spanish and the Philippines Ministry of Higher Education, or the National Secretary of Science, Innovation and Technology.

### **Mahta SAREMI, University of Tehran, Iran**



Dr. Mahta Saremi is Adjunct Professor at the University of Tehran's Alborz Campus and is a known researcher in the field of tourism. Her work focuses on cultural and historical tourism, with a specific interest in marketing and sustainability.

Her research interests include: Historical and Cultural Tourism: Her work explores marketing strategies for historical sites and the development of heritage tourism. She has published research on how cultural tourists perceive and respond to the image of historical destinations.

She investigates the link between cultural tourist behaviour and its effect on environmental sustainability. Dr. Saremi has also contributed to research on "emerging patterns and behaviours in a green resilient economy".



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**Cristina BOBOC, Economic Study Academy of Bucharest, Institute of National Economy, Romania**



Dr. Cristina Boboc is Full Professor at the Academy of Economic Studies (ASE) in Bucharest, with considerable teaching and research activity since 1999. She is also a senior researcher within The Institute of National Economy- Romanian Academy.

She has extensive expertise in economics, with postdoctoral studies at the Romanian Academy and research activity at the National Institute for Economic Research.

She is the coordinator of the Master's program in Data Science at the Academy of Economic Studies in Bucharest.

**Vera AMICARELLI - University of Bari Aldo Moro, Italy**



Associate Professor, Ph.D. in Commodity Science, at the Department of Economics, Management and Business Law at the University of Bari Aldo Moro, Italy. She teaches "Industrial Ecology", "Quality Environment and Sustainability" and "Resource and Waste Management" in both bachelor's and master's degrees. She is a Professor Committee member in the "Economics and Management" Ph.D. course and advisor of related Ph.D. projects. Her current research interests mainly focus on circular economy measurement; natural resources and waste management; and environmental indicators (water and carbon footprint). She is author of more than 90 papers published in a wide range of international peer-reviewed journals, volumes and conference proceedings. She is member of some international scientific journals Editorial Board, and she serves as Guest Editor and/or Reviewer for several international scientific journals and related Special Issues. From 2017 until 2024 she has been Department Delegate for the Erasmus+ program and member of the University of Bari Aldo Moro Erasmus+ Task Force. From 2007 she is Responsible Person of several Agreements with European Partners Universities (Romania, Portugal, Spain, Germany). She is a member of different national and international research groups whose principal activities are writing scientific articles, project proposals and consolidating international networks. She is a member of the Italian Commodity Science Academy (AISME), the International Society of Commodity Science and Technology (IGWT), and the Italian Circular Economy Stakeholders Platform (ICESP).



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### **Irina Gabriela RĂDULESCU – Petroleum & Gas University of Ploiești, Romania**



Professor PhD at Petroleum-Gas University of Ploiești, Faculty of Economic Sciences, vice-president of Export Business Center Association from Bucharest, member of the coordinating team of European Digital Innovation Hub – Wallachia eHub for South-Muntenia region, and manager of Danube Engineering Hub Cluster. She is the author and co-author of 80 scientific papers presented at national/international conferences and/or published in recognized journals, indexed in ISI Web of Science, Scopus, EBSCO, Ulrich, and other international databases, and 10 books published at recognized national publishing houses. She is involved as a member or coordinator in national and international projects related to international trade, entrepreneurship, or digital transformation processes. She is an expert in international trade at Export Business Center from Ploiești, Prahova County, and an expert in organic agriculture at Integrated Export Services for SMEs in Romania Project, funded through the "Swiss-Romanian Cooperation Program for Reducing Economic and Social Disparities within the Enlarged European Union".

### **Alexandru STRATAN, Academy of Economic Studies of Moldova, Moldova**



Professor habil., PhD in economic sciences, rector of Academy of Economic Studies of Moldova, corresponding member of the Academy of Sciences of Moldova has a successful activity, having prestigious scientific works, participating in various competitions, becoming Laureate of the Prize of the Academy of Sciences of Moldova in 2004, 2006 and Laureate of the Prize of the Academy of Sciences of Moldova "Scientist of the Year" (2014). In 2017 he was awarded the National Prize. Prof. Alexandru STRATAN has published as an author or in collaboration over 300 scientific and methodological-didactic works in the field of economics, including 7 monographs, 2 textbooks, 1 patent, 2 certificates of registration of objects of copyright and related rights. He has presented papers at numerous national and international scientific forums (Romania, Russia, Belgium, Georgia, France, Great Britain, Turkey, Latvia, Indonesia, Japan, China, etc.), participated in various professional internships (Germany, USA, Greece, Denmark, China, etc.), conducted research within various applied scientific projects (TACIS, GEF, NATO, CSSDT, FP 7, Visegrad Fund, OECD, FAO, etc.). He also participated in the development of the regulatory framework: the National Strategy for Sustainable Development of the Agro-Industrial Complex of the Republic of Moldova (2008-2015), Licensing Conditions and Lists of supplementary Documents, which are attached to applications for issuing licenses for practicing certain types of activity in the agro-industrial field, Integrated Development Strategies for a number of districts of the



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Republic of Moldova, SME Development Strategy, SND 2020, as well as other policy documents attested by implementation certificates.

### **Florian NUTA, Danubius University, Galați, Romania**

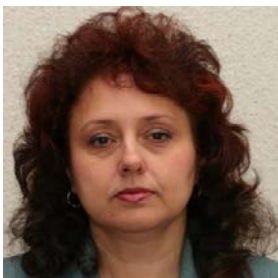


Florian Marcel Nuță is a Full Professor Dr. Habil. in Accounting at Danubius University from Galați, with over 17 years of teaching and research experience. He is affiliated with the Ștefan cel Mare University of Suceava, Doctoral School of Social and Human Sciences, for research and doctoral supervising activities. Dr. Nuță holds a bachelor's degree in Finance and Insurance and a master's degree in Accounting from the "Dunărea de Jos" University of Galați.

Starting in 2014, he has been in charge of research activity management as vice-rector with the Danubius University from Galați. In January 2022, Dr. Nuță defended his habilitation thesis, entitled "Research on Environmental and Social Accounting in the Context of Sustainable Development Objectives and for Ensuring Intergenerational Equity" at the Ștefan cel Mare University of Suceava, Doctoral School of Social and Human Sciences, being afterward affiliated to the same doctoral school.

His scientific research is conducted in the following fields: Environmental Accounting, Climate Change Economics, Energy Economics, Urban Environmental Accounting, Carbon Accounting, Green Taxation, and Public Policy. He is involved in numerous editorial initiatives as editor-in-chief, editor, member of the international scientific board, and reviewer for scientific journals and international conferences, conducting more than 500 peer-reviews during his academic career.

### **Valentina VASILE, Institute of National Economy, Romanian Academy, Romania**



Professor with a PhD in Economics, and Senior Researcher. She serves as Director of the Institute of National Economy at the Romanian Academy and teaches at "Nicolae Titulescu" University in Bucharest. She also acts as a PhD advisor. With extensive experience in economic research, she has participated in national and international interdisciplinary projects, focusing on topics such as labor economics, migration, human capital, the digital economy and employment, social policies, education, macroeconomics, sustainable development, resilience, and the circular economy. She has a strong record of international collaboration, serving as both coordinator and team member in interdisciplinary research projects funded by European funds, Horizon 2020, the SEE Program, Black Sea Basin ENI CBC, CEDEFOP, ILO, Eurofound, and various universities (e.g., Hitotsubashi University, Tokyo, Japan). Her work includes publications in scientific papers and books indexed in Web of Science, Scopus, and other international databases. She also serves as a reviewer for several scientific journals.



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**Marius SURUGIU, Institute of National Economy, Romanian Academy, Romania**



Senior researcher at the Institute of National Economy, Romanian Academy, Bucharest, Romania. Holding a Ph.D. in economics, his research portfolio primarily focuses on key elements that significantly impact socio-economic development: foreign trade and tourism as factors, the scarcity of natural resources, and the necessity of environmental protection as constraints, along with taxation as a challenge. His scientific, professional, and academic achievements can be structured along four major directions: exploring the complex interactions between fiscal policy and economic development, addressing challenges of socio-economic development in the context of climate change, examining determinants of intra-industry trade, and investigating the role of tourism in stimulating economic growth.



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## PLENARY SESSION: KEYNOTE SPEAKERS

### PRESERVING CULTURAL HERITAGE THROUGH SUSTAINABLE TOURISM MANAGEMENT

**Alexandru Stratan<sup>1\*</sup>, and Corina Gribincea<sup>2</sup>**

<sup>1,2</sup>Academy of Economic Studies of Moldova, Chisinau, Republic of Moldova;

alex\_stratan@yahoo.com, gribincea.corina@ase.md

ORCID ID: 0000-0001-7086-8604, 0000-0003-2571-5849

\*Corresponding author

#### **Abstract**

*Cultural heritage includes tangible and intangible elements of human society. It comprises physical artifacts such as historic structures, cultural objects and languages, as well as non-physical aspects like traditions, customs or artistic practices transmitted through generations. In addition to its direct significance, cultural heritage contributes to sustainable development by supporting economic, social and environmental aims. In the context of the Republic of Moldova, these elements are especially significant, as the country possesses a diverse cultural heritage that is shaped by traditions and ongoing transformation within the framework of EU integration.*

**Objective:** *Present research investigates the management of cultural heritage through sustainable tourism development with a focus on promoting economic development, safeguarding cultural identity and fostering environmental sustainability in Moldova. It also discusses the specific challenges and opportunities related to preserving cultural heritage through sustainable tourism management in Moldova.*

**Method:** *The research was conducted using a mixed methodology, both quantitative and qualitative. A survey was applied, evaluating cultural heritage in terms of sustainable tourism principles. A three-phase mixed methodology combined a structured questionnaire with content analysis and a focus group that allowed evaluation of sustainable tourism in Moldova.*

**Results:** *The findings indicate existing knowledge gaps and practical challenges that may impede the implementation of policy objectives, while highlighting areas requiring further improvement and research, including evaluation of sustainability implementation in the region. The results from the survey showed that participants undervalued cultural heritage when it comes to sustainable tourism principles. Based on SWOT analysis has been identified internal and external conditions of the Moldovan cultural heritage in relation to sustainable tourism. Based on the main results, strategies for sustainable tourism development have been formulated.*

**Originality:** *The research is based on a context-specific approach in evaluating and strategizing sustainable tourism management concerning cultural heritage, using a mixed methodology within the framework of Moldova's EU accession process.*

**Keywords:** *tourism; cultural heritage; resilience; sustainable development; economic growth*

**Funding:** *The article was developed within the framework of Subprogram 030101 „Strengthening the resilience, competitiveness, and sustainability of the economy of the Republic of Moldova in the context of the accession process to the European Union”, institutional funding, (2024-2027), ANCD*



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## **TOOLS FOR PROMOTING NATIONAL HERITAGE: A CASE STUDY ON FILM-INDUCED TOURISM**

**Valentina Vasile<sup>1</sup>, Marius Surugiu<sup>2</sup> and Raluca Mazilescu<sup>3\*</sup>**

*<sup>1,2,3</sup>Institute of National Economy, Romanian Academy, Bucharest, Romania*

*valentinavasile2009@gmail.com, surugiumarius@gmail.com, ralucamazilescu@gmail.com*

*ORCID ID: 0000-0002-2368-1377, 0000-0002-9599-4540, 0000-0001-6373-5387*

*\*Corresponding author*

### **Abstract**

*Objective: Movies and TV series have an impact not only on viewers, but also on the tourism industry. Promoting heritage through movies also impacts the image of a destination and can attract visitors from all over the world. Thus, the cinema productions might transform the perception regarding the cultural heritage. The article aims to analyze how heritage is reflected in movies and the impact on the tourism industry.*

**Keywords:** *cultural heritage; movies; tourism industry; destination; visitors*



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## **RETHINKING NATURAL CAPITAL THROUGH THE LENS OF SUSTAINABILITY. THE ROLE OF CIRCULAR ECONOMY**

**Vera Amicarelli**

*Department of Economics, Management and Business Law, University of Bari Aldo Moro, Bari, Italy*  
*vera.amicarelli@uniba.it*  
*ORCID ID: 0000-0003-0115-1356*

### **Abstract**

**Objective:** *The aim of this research is to highlight how the adoption of a circular economy approach can enhance the sustainable management of natural and cultural heritage. Transitioning towards a circular model is essential to preserve, regenerate, and valorize both natural and cultural heritage, creating a dynamic bridge between the past, present, and future. To this end, the study emphasizes the key role of measuring resource flows that move between natural systems and anthropic activities, outlining different methodologies such as Material Flow Analysis (MFA), Life Cycle Assessment (LCA), Evaluation of Sustainability of material substitution using Carbon footPrint by simplified approach (ESCAPE), and the use of environmental indicators like the Water Footprint. Among various domains, food emerges as one of the most representative examples of a heritage element that must be protected from social, economic, and environmental perspectives. Minimizing food waste requires understanding and quantifying the hidden material and energy flows associated with food production, consumption, and disposal. Evidence collected from the hospitality industry and hospital food-service provides concrete illustrations of the strengths and limitations of the aforementioned analytical tools, demonstrating how circular models can be effectively applied in real contexts.*

**Results:** *The research investigates food waste quantities in hotels and healthcare food services and evaluates the carbon footprint in the latter sector. By measuring and quantifying the material flows entering and leaving the analyzed systems, the study identifies potential corrective and preventive actions. For instance, formal collaborations in food procurement between hotels and local suppliers, as well as the creation of food networks connecting businesses, retailers, and charities to facilitate food donation, were found to significantly reduce food waste in hotels. Similarly, revisiting weekly menus and varying the food served in healthcare facilities not only lowers environmental impacts but also enhances patients' satisfaction and nutritional well-being.*

**Originality:** *This research contributes to a deeper understanding of the food waste phenomenon within the hospitality and healthcare sectors, offering theoretical insights and managerial recommendations aimed at integrating circular economy principles into heritage-related food systems. By bridging sustainability assessment tools with practical case studies, it provides a foundation for future quantitative investigations and supports the development of sustainable heritage management frameworks.*

**Keywords:** *circular economy; sustainability; food waste; hotel industry; healthcare food service*



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## **MAPPING MEMORY. DIGITAL METHODS FOR DOCUMENTING AND INTERPRETING RURAL HERITAGE**

**Carol-Alexandru Mohr<sup>1\*</sup>, and Carmen-Emilia Chașovschi<sup>2</sup>**

<sup>1</sup>Bucovina Institute of Romanian Academy, Rădăuți, Romania; <sup>2</sup>"Ștefan cel Mare" University, Suceava, Romania  
carl@mohr.ro, carmenc@usm.ro

ORCID ID: 0009-0007-1892-274X, 0000-0002-3881-5358

\*Corresponding author

### **Abstract**

*The preservation of cultural landscapes in Romania, and particularly in the historical region of Bucovina, faces a complex set of interrelated challenges that reflect both socio-economic transformations and shifting cultural values. In the post-socialist decades, rural communities have undergone profound demographic and structural changes: the continuous outmigration of younger generations toward urban centers or abroad has led to significant depopulation, leaving behind aging populations and numerous abandoned homesteads. This demographic decline accelerates the degradation of vernacular architecture and weakens the transmission of traditional knowledge that once sustained local identity and craftsmanship.*

*At the same time, the rural built heritage is increasingly threatened by the replacement of traditional wooden houses with modern constructions that disregard regional aesthetics and authenticity. The lack of effective architectural control and insufficient awareness of heritage value contribute to a process of visual and cultural homogenization. Local craftsmanship — including the art of wooden joinery, carving, and shingle-making — is rapidly disappearing, as younger generations find limited economic motivation to continue these professions.*

*Institutionally, heritage management remains fragmented across national, county, and local levels, with overlapping competences and limited coordination. Financial support for preventive conservation or rehabilitation is scarce, and the bureaucratic procedures required to access available funds often discourage individual owners. Furthermore, the pressure to develop tourism as an economic alternative sometimes results in the superficial commercialization of heritage, with replicas and non-authentic restorations replacing genuine conservation efforts.*

*In many communities, the loss of population and traditional livelihoods has also led to declining attachment to place. The intangible dimensions of heritage — memory, craftsmanship, ritual, and oral tradition — are fading as intergenerational transmission weakens. Educational and cultural programs that could reawaken interest in heritage remain limited in scope and continuity.*

*From a documentation perspective, the systematic inventory and digital recording of heritage assets are still incomplete. Valuable architectural ensembles and cultural landscapes often lack proper mapping or 3D digitization, although recent initiatives such as PORT Cultural and Save the Bucovina Village have demonstrated the potential of participatory digital documentation.*

*Environmental and climatic pressures further complicate preservation. Wooden structures are increasingly exposed to humidity, rainfall, and temperature fluctuations, while deforestation and land-use change disrupt the ecological balance of traditional landscapes. The cumulative impact of these factors is the gradual erosion of Bucovina's distinct cultural character — once defined by its harmonious coexistence of natural, built, and spiritual elements across Romanian, Polish, Ukrainian, and German communities.*

*Despite these challenges, a growing network of civic, academic, and institutional actors has begun to advocate for an integrated approach to landscape preservation. Their efforts underscore the urgent need for intersectoral cooperation among cultural, environmental, tourism, and urban planning policies, as well as for innovative community-based models of revitalization that view heritage not as a static relic of the past, but as a living resource for sustainable regional development.*

**Outline:** *This study addresses the challenges of documenting and preserving rural heritage landscapes in Bucovina, a region characterized by rich vernacular architecture, multicultural identity, and ongoing socio-economic transformations. The objective is to explore how digital technologies — particularly 3D scanning, GIS mapping, and*



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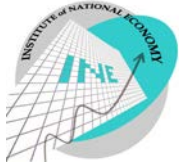
*participatory online archives — can enhance both the safeguarding and dynamic reinterpretation of tangible and intangible heritage assets. The research situates digital documentation within the broader discourse of sustainable rural development and cultural tourism, aiming to conceptualize an integrated model for community-based heritage revitalization.*

**Method:** *The research employs a mixed-methods design combining qualitative fieldwork, participatory mapping workshops, and digital archiving processes. Field documentation was conducted through photo-elicitation, architectural surveys, and interviews with local stakeholders, complemented by community-driven mapping sessions. The study builds upon digital documentation frameworks developed within the PORT Cultural and Save the Bucovina Village initiatives, integrating geospatial data (GIS) with ethnographic insights. The methodological approach emphasizes participatory co-creation, digital storytelling, and the integration of open-access digital heritage repositories as tools for inclusive knowledge production.*

**Results:** *The results highlight the potential of digital documentation to simultaneously preserve material evidence — such as vernacular houses, craftsmanship, and cultural landscapes — and activate the intangible layers of local memory, narratives, and identity. The creation of a digital cultural landscape map of Bucovina enhances visibility and accessibility of local heritage while supporting new forms of cultural tourism interpretation. Furthermore, the results demonstrate that community-engaged digitization fosters local empowerment and strengthens intergenerational transmission of heritage values. The digital mapping outputs are currently being used in educational and tourism contexts to support place-based learning and sustainable destination design.*

**Originality:** *This paper introduces the concept of “digital cultural landscape mapping” as an innovative framework for connecting digital heritage technologies with community-based rural development. Unlike conventional heritage documentation, this model integrates participatory digital tools with socio-cultural interpretation, fostering a living digital archive that evolves with community input. The originality lies in the interdisciplinary synthesis of digital humanities, participatory museology, and rural development studies, proposing a replicable methodology applicable to other European peripheral regions facing similar challenges of depopulation and heritage loss.*

**Keywords:** *digital heritage; rural landscape; participatory mapping; Bucovina; vernacular architecture; cultural tourism; community engagement; sustainable development*



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# PAPER PRESENTATIONS

DAY 1, October 30, 2025

**ASSESSING THE SOCIO-ECONOMIC IMPACT OF KWETE CULTURAL FESTIVAL ON THE WELLBEING OF LAMURDE COMMUNITY IN ADAMAWA STATE, NIGERIA**  
**Olugbenga Mayowa Agboola<sup>1\*</sup>, Matilda Maddeino George<sup>2</sup>, Olayinka Christopher Aina<sup>3</sup> and Tolulope Adetayo Fajobi<sup>4</sup>**

<sup>1,2,3</sup>Department of Tourism and Events Management, Afe Babalola University, Ado-Ekiti, Nigeria;

<sup>4</sup>Department of Sociology, Afe Babalola University, Ado-Ekiti, Nigeria

agboolaolumayor@abuad.edu.ng; ainaoc@abuad.edu.ng; fajobita@abuad.edu.ng;

ORCID ID: 0000-0003-3056-4694

\*Corresponding author

## **Abstract**

**Objective:** Cultural festivals are vital to sustaining community identity, fostering social cohesion, and stimulating local development. The Kwete Cultural Festival, celebrated annually in Lamurde, Adamawa State, embodies cultural pride and communal unity among the Bwatiye people. Despite its cultural importance, little scholarly attention has been paid to its socio-economic implications for the host community. This study therefore assesses the socio-economic impact of the Kwete Cultural Festival on the wellbeing of Lamurde, with specific objectives to: examine the economic benefits of the Kwete cultural festival on the livelihood of the Lamurde community; analyze the festivals influence on social cohesion, cultural preservation and community development in Lamurde and investigate the role of the Kwete Cultural Festival in promoting cultural heritage and local entrepreneurship.

**Method:** The study employed a mixed-methods approach, combining quantitative and qualitative techniques. Primary data were collected through structured questionnaires administered to 385 residents and interviews with festival organizers, business operators, and cultural stakeholders. Secondary data were obtained from existing literature and official reports. Descriptive statistics were used to analyze quantitative responses, while thematic analysis guided the interpretation of qualitative insights.

**Results:** Findings indicate that the Kwete Cultural Festival significantly contributes to community wellbeing by generating household income, creating seasonal employment, and attracting tourism inflows that stimulate local businesses such as hospitality, transportation, and trade. Beyond these economic benefits, the festival strengthens social networks, promotes youth participation in cultural heritage, and enhances communal pride. However, inadequate funding, infrastructural deficits, and weak policy support were identified as persistent challenges that limit its full socio-economic potential.

**Originality:** This study provides empirical evidence on the socio-economic role of the Kwete Cultural Festival, highlighting its dual significance as a tool for cultural preservation and community development. It recommends stronger stakeholder collaboration, increased government support, and sustainable management strategies to maximize its long-term impact.

**Keywords:** Kwete cultural festival; socio-economic impact; cultural heritage; social cohesion; Lamurde



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## **LOCAL DEVELOPMENT AND HERITAGE IDENTITY. CASE STUDY – PĂDUREA CRAIULUI MOUNTAINS**

**Daniela Antonescu<sup>1\*</sup>, Ioana Cristina Florescu<sup>2</sup>**

<sup>1,2</sup>*Institute of National Economy, Romanian Academy, Bucharest, Romania,  
daniela.antonescu25@gmail.com, ioanaflorescu2001@yahoo.com  
ORCID ID: 0000-0003-3785-9022, 0000-0002-2582-4140*

*\*Corresponding author*

### **Abstract**

*Located in the southeastern part of Bihor County, the Pădurea Craiului Mountains stretch to the border with Alba County, being part of the Beiuș Depression. The mountainous area is made up of the following localities: Răbăgani, Pomezueu, Dobrești, Roșia, Căbești, Curățele, Budureasa and Pietroasa, covering a total area of 1,007.55 sq. km. The closest towns are Beiuș, Ștei and Oradea, with road connections to Cluj and Alba counties. Pădurea Craiului Mountains occupy the northwestern part of the Apuseni Mountains within the Western Carpathian range, forming a true peninsula, stretching between the Vad-Borod and Beiuș depressions. The highest peak of the massif is Hodrâncușa Peak, reaching 1,027 meters. The area is remarkably beautiful and contains many protected natural sites such as Budureasa and Pietroasa, communes that are part of Natura 2000 sites and high natural value areas: Budureasa, Căbești, Curățele, Roșia and Pietroasa.*

*The Pădurea Craiului Mountains are seen as an island separated from the Apuseni body, nicknamed the "Little Switzerland," not because of the lofty peak – the highest being Hodrâncușa at 1,027 meters – but because among its gentle ridges lie dizzying gorges and the most numerous caves and sinkholes in Romania (over 340). Tourism in the area benefits from the favorable geographical position and the existence of varied and attractive resources, both natural and man-made, which provide highly favorable conditions for practicing different forms of tourism. The region lies within a protected area and hosts the largest number of tourism operators and adventure activity organizers in Bihor County, making it a perfect tourist destination both for adrenaline seekers and for mountain lovers, cycling enthusiasts, or those simply wishing to rest in the fresh air.*

*Pădurea Craiului is not a highly developed economic area, facing depopulation, unemployment, temporary school dropouts, and social challenges linked to aging, among others. Nevertheless, the cultural heritage and natural potential of the area can create the conditions for a human-centered local development. A sustainable development approach should place significant emphasis on the human factor, regarded as the driving force within communities, focusing on what people can become and what they can achieve. From this perspective, as a factor enabling development, natural potential and cultural heritage can represent more than just a means to an end; they contribute to enhancing human capacities in a much deeper and broader sense.*

*This paper aims to highlight the importance of the natural and cultural heritage in the Pădurea Craiului bioarea, seeking to look beyond the immediate future and emphasizing the value of the legacy passed down to future generations. Addressing cultural heritage in the mountain area as a starting point for future changes may serve as a way to promote a diverse and integrated cultural vision that can shape directions for local development and strengthen cultural potential.*

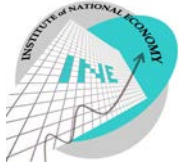
**Objective:** *to highlight the importance of cultural heritage in Pădurea Craiului*

**Method:** *review of the scientific literature, identification of specific indicators, analysis and processing of data, establishing trends and conclusions*

**Results:** *the cultural heritage profile of Pădurea Craiului*

**Originality:** *By addressing the topic of cultural heritage in an area with important specific traditions and customs, the analysis contributes to its promotion both nationally and internationally.*

**Keywords:** *cultural heritage; sustainable development; local communities; tourist destination; Pădurea Craiului*



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## **LEVERAGING THE URBAN PHYSICAL INTERNET FOR SUSTAINABLE HERITAGE MANAGEMENT: EDGE AI, FEDERATED LEARNING, AND DIGITAL TWINS**

**Fabrizio Benelli<sup>1\*</sup>, Mario Caronna<sup>2</sup>, Erdet Këllici<sup>3</sup>, and Franco Maciariello<sup>4</sup>**

<sup>1,4</sup>Universitas Mercatorum, Rome, Italy; <sup>2</sup>University of Siena, Italy; <sup>3</sup>Tirana Business University College, Tirana, Albania

**Abstract:** *The sustainable management and valorisation of heritage assets increasingly require digital infrastructures able to combine efficiency, inclusiveness, and resilience. Current heritage conservation and tourism logistics often suffer from fragmentation, limited interoperability across institutions, and insufficient real-time monitoring. This paper proposes an Urban Physical Internet (U-PI) architecture that applies principles of modularity, openness, and interoperability to the heritage domain, integrating Edge AI, Federated Learning, and Digital Twins.*

*At the edge layer, lightweight AI models deployed on IoT devices monitor flows of visitors, environmental conditions, and energy usage within cultural venues and heritage sites. The federated learning layer enables museums, municipalities, and SMEs in the tourism ecosystem to collaboratively train predictive models without sharing sensitive raw data, thus ensuring privacy and respecting intellectual property. The digital twin layer provides a virtual representation of urban districts and heritage infrastructures, allowing scenario-based simulations to optimise visitor mobility, energy demand, and resilience strategies.*

*Preliminary simulations indicate that the proposed U-PI approach can reduce congestion in high-traffic heritage districts, lower energy consumption of buildings, and improve the equitable distribution of cultural services among large institutions and smaller local actors. In addition, blockchain-based event logs and urban data spaces ensure transparent governance and auditability of heritage-related transactions.*

*The contribution situates heritage management within broader sustainability transitions, aligning with European Green Deal goals and national strategies on digitalisation and cultural innovation. By embedding resilience and fairness at architectural level, the proposed framework offers a roadmap for safer, smarter, and more accessible heritage ecosystems.*

**Keywords:** *heritage management; urban physical internet; edge AI; federated learning; digital twins; sustainability; smart cities.*



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## **BRIDGING TWO ACCOUNTING WORLDS: THE BANK VERSUS CORPORATE CHARTS OF ACCOUNTS**

**Aurelia Damian<sup>1\*</sup>, Daniela Rodica Iov<sup>2</sup> and Dorian Florin Damian<sup>3</sup>**

<sup>1,2</sup>Petroleum - Gas University of Ploiesti, Romania; <sup>3</sup>"Virgil Madgearu" Economic College, Ploiesti, Romania  
aurelia.damian@upg-ploiesti.ro, driov@upg-ploiesti.ro, dorian\_dam@yahoo.com  
ORCID ID: 0009-0001-3907-7449, 0009-0002-0273-5863, 0009-0003-1800-8158

\*Corresponding author

### **Abstract**

**Objective:** The paper aims to analyze the differences and similarities between the charts of accounts applied in the banking and corporate sectors, as well as their implications for financial reporting and accounting harmonization:

- to identify the fundamental differences in the structure and organization of charts of accounts;
- to highlight similarities and areas of overlap that may constitute points of convergence;
- to examine the impact of these differences on financial reporting, on information transparency and on the decision-making process;
- to explore the prospects for accounting harmonization between the two areas, considering the trends of financial integration and globalization.

**Method:** A comparative and analytical approach structured in several stages is used:

- review of the specialized literature and the regulatory framework – national and international regulations (IAS/IFRS, European directives, banking system regulations) are analyzed, in order to build the theoretical foundation of the comparison;
- structural analysis of the charts of accounts – the architecture of the accounts, the principles of classifying assets, liabilities, income and expenses in the two systems are compared;
- applied case study – examples from banking and corporate practice are selected to illustrate how these differences are reflected in financial statements;
- identification of areas of convergence/divergence - the structural and functional particularities of the charts of accounts are identified, as well as areas of overlap or divergence in order to build a conceptual framework that highlights the opportunities for harmonization and existing barriers;

**Results:** the analysis reveals a number of differences:

- asset and liability structure: in banking accounting, accounts are organized around financial products and services (loans, deposits, securities, liquidity) with an emphasis on compliance with regulatory and prudential requirements. In corporate accounting, the emphasis is on fixed assets, inventories, trade receivables and payables, on operating, investment and financial cycles, reflecting the specifics of commercial and industrial activity;
- classification of income and expenses: in banks, income focuses on interest, commissions and results from financial transactions, while expenses are dominated by financing costs and adjustments for credit risk. In corporations, income comes mainly from sales of goods and services, and expenses relate to production, logistics and administration;
- financial statements: banks present extensive balance sheets, with an emphasis on liquidity, risk and capital structure, while corporations focus on operational performance and the operating cycle;
- regulations: the banking system subject to additional regulations that do not apply directly to corporations, which creates methodological and reporting differences.

However, there are also points of convergence:

- both systems follow the general principles of accounting (recognition, measurement, presentation and comparability);
- there are common areas in the recognition of income and expenses, which can facilitate harmonisation;



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- *digitalization and integrated reporting trends open up prospects for closer alignment of accounting structures.*

**Originality:** *The essential contribution of the study is to propose a conceptual framework aimed at building a connection point between banking and corporate accounting. This approach offers a new perspective on accounting integration and supports the process of international harmonization, facilitating better communication between sectors and greater relevance of financial information for decision-makers.*

**Keywords:** *chart of accounts, bank accounting, corporate accounting, financial reconciliation, financial reporting*



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## **EXCESSIVE SPENDING - UNPRODUCTIVE BEHAVIOR OR LACK OF FINANCIAL EDUCATION**

**Liviu-Gelu Drăghici<sup>1</sup>\* and Marilena Drăghici<sup>2</sup>**

<sup>1</sup>Romanian Academy, School of Advanced Studies of the Romanian Academy, Doctoral School of Economic Sciences, National Institute for Economic Research "Costin C. Kiritescu", Institute of National Economy;

<sup>2</sup>Vodafone Romania SA

[liviu-gelu.draghici@ince.ro](mailto:liviu-gelu.draghici@ince.ro)

ORCID ID: 0009-0009-4389-4669

\*Corresponding author

### **Abstract**

*The article focuses on studying excessive spending behavior from the perspective of lack of financial education as well as from a psychological perspective. Although consumption is a motor of the modern economy, the tendency to spend excessively can be interpreted as an unproductive behavior, generating financial vulnerabilities at the personal and social level. Through an interdisciplinary analysis that combines theories from behavioral economics, psychology and financial education, the research highlights how the lack of adequate financial knowledge influences impulsive consumption decisions and poor management of financial resources. The paper starts from the hypothesis that the lack of adequate financial education favors irrational consumption decisions and contributes to the perpetuation of economic imbalances. The exploration of the relationship between the level of financial education and the tendency to consume excessively is carried out through a theoretical analysis supported by recent empirical studies. The results suggest that the tendency to spend should not be reduced exclusively to a behavioral trait, but can be understood as a cumulative effect of the socio-economic context, cultural pressures and the deficit of financial education. The conclusions emphasize the importance of strengthening financial literacy among the population to stimulate responsible resource management and reduce the risks associated with unproductive consumption behaviors. This study also provides recommendations for educational policies and the development of effective financial literacy programs that would contribute to reducing risky financial behaviors in society.*



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## **OSUN OSOGBO SACRED GROVE IN THE VIRTUAL WORLD: EXPLORING THE PROSPECTS AND CHALLENGES OF DIGITAL TECHNOLOGIES IN THE PRESERVATION OF CULTURAL HERITAGE IDENTITIES**

**Ngozi Ezenagu<sup>1</sup> and Chinonso Chiamaka Iwuagwu<sup>2</sup>**

<sup>1,2</sup>Department of Tourism and Events Management, Afe Babalola University, Ado-Ekiti, Nigeria

ngozenagu@gmail.com, chinonsosweet24@gmail.com

ORCID ID: 0000-0002-2296-5415, 0000-0002-8388-255X

### **Abstract**

**Objective:** Osun Osogbo sacred grove is one of the most outstanding UNESCO World heritage sites in Nigeria. The sacred grove is a cultural heritage site with a long-standing history of religious interaction between the Osogbo people and the Osun goddess. The sacred grove is proliferated with numerous cultural and natural heritages especially the liquid body of Osun goddess – Osun River. The living cultural processes associated with Osun River translate into various tangible and intangible heritage identities of the grove. Thus, the sacred grove could be described as a focal point of religious worship, cultural exchange and enrichment, cooperation and peace among peoples. As a focal point of cultural engagement and negotiation, traditional conservation techniques have been employed over the years to sustain the heritage identity of the sacred grove. The continuous use of traditional techniques in sustaining the originality of the sacred grove has been challenged in the modern age. Thus, the gradual erosion of the authenticity of the tangible and intangible characteristics of the sacred grove as a result of decline in the efficacy of traditional conservation methods in face of modernity calls for the inclusion of advanced technology in the preservation of the heritage site. Literature reveals that many developed and developing nations are adopting and implementing digital tools in the preservation of their living heritage identities. These living cultures are sustained through digitalisation of its processes using technologies such as 3D, virtual and augmented realities.

**Method:** This is a qualitative research survey. The research adopts in-depth interview and direct observation as instruments to elicit data on the impact of digitalising Osun Osogbo sacred grove. The population of the study comprises staff members of the Osogbo sacred grove museum and Osun worshippers. The participants were deemed suitable for the study because the museum staff members constitute the direct official custodians while the Osun worshippers are the traditional custodians of the sacred grove. The Osun sacred grove museum staff members were selected on the basis of years of experience in the grove, while Osun worshippers were purposely selected considering their involvement and role in the worship process. The data elicited from the participants will be thematically analysed to present the perception of the selected stakeholders on the impact of digitalising Osun Osogbo sacred grove. Extant literatures will be thoroughly engaged to elaborately discuss the research results.

**Results:** The findings reveal that the adoption and implementation of digital tools in preserving the sacred grove have numerous beneficial impacts. Many of the participants agreed that the sacred grove will be accessible to visitors across the globe which will increase the visibility of the heritage site. The adoption of digital tools will preserve the tangible elements from destruction arising from overcrowding. The electronic documentation and preservation of the intangible cultural processes will be open for educational purposes across the country. However, many of the Osun worshippers argue that the digitalisation will desecrate the sacred grove leading to the decline in Osun worship. They affirm that digitalisation of Osun sacred grove will expose and defile many of the sacred sites within the grove not meant to be viewed by non-worshippers of the goddess. Also, with digitalisation, many of the diasporan worshippers may no longer participate in the live worship of the goddess in the sacred grove during the annual festival. The findings further revealed that many of the worshippers maintained that the worship of the Osun goddess will be incomplete in the absence of the goddess liquid body-Osun River.

**Originality:** The study exposes the need to create a balance between traditional and digital preservation of Osun Osogbo cultural identity so that virtual visit does not replace onsite participation in Osun Osogbo annual festival. This lacuna suggests the need for policy makers to thoroughly investigate the impact of digitalising Osun Osogbo sacred will have on the annual worship of the goddess which is the core identity of the heritage site. As an outstanding



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*cultural heritage site in the country, its long-term sustainability in this modern era is dependent on the adoption of digitalised techniques. This will lead to the development of effective means of preserving cultural beliefs and practices in a constantly revolving digital era. Nevertheless, the question on the continuity and authenticity of digitalised living cultural processes remains tentative.*

**Keywords:** *Osun Osogbo sacred grove; digital tools; tangible and intangible cultural heritage; virtual world; cultural processes*



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## **INDUSTRIAL RELATIONS AND HUMAN DEVELOPMENT: A MULTIDISCIPLINARY PERSPECTIVE ON ROMANIAN LABOR POLICY**

**Cristian-Nicolae Ghena**

*Romanian Academy, Doctoral School of Economical Sciences, National Institute for Economic Research "Costin C. Kiritescu", Institute of National Economy  
crfrisk@gmail.com*

### **Abstract**

**Objective:** *This paper aims to explore the conceptual and practical dimensions of industrial relations, with a particular focus on the Romanian context. The study seeks to redefine labor not merely as a transactional or economic activity, but as a deeply human, cultural, and social phenomenon that underpins both individual development and organizational performance. By analyzing the evolution of industrial relations and their institutional frameworks, the paper investigates how labor relations contribute to social cohesion, economic resilience, and democratic governance. The research also aims to identify the challenges facing Romanian labor institutions in the post-transition era and to propose interdisciplinary approaches for improving labor dynamics and collective bargaining mechanisms.*

**Method:** *The study employs a qualitative, interdisciplinary methodology that combines theoretical analysis with institutional and legislative review. Drawing on historical sources, legal texts (notably the Romanian Labor Code – Law 53/2003), and conceptual frameworks such as Maslow’s hierarchy of needs, the paper constructs a comprehensive understanding of labor as a multidimensional construct. The research integrates perspectives from labor law, sociology of work, human resource management, and negotiation theory to examine the evolution of industrial relations from their emergence in the late 19th century to their current form in Romania. The analysis is enriched by references to European labor standards and the impact of EU integration on national labor policies. The study also reflects on the role of public institutions, trade unions, and employers in shaping the industrial relations landscape.*

**Results:** *The findings reveal that labor in Romania continues to face structural and institutional challenges, including fragmented representation, limited bargaining coverage, and weak enforcement of labor rights. Despite the existence of legal frameworks that support collective bargaining and social dialogue, their practical implementation remains inconsistent. The study highlights the need for stronger institutional support and more effective participatory mechanisms to ensure equitable labor relations. It also demonstrates that labor is not only a means of production but a vehicle for fulfilling human needs across all levels of development—from basic survival to self-actualization. The integration of Maslow’s theory into the analysis shows that labor contributes to both individual well-being and organizational success when managed holistically. Furthermore, the research identifies gaps in the current academic and policy discourse on industrial relations, particularly in the Romanian public sector, where issues such as emotional intelligence, creativity, and team dynamics are often overlooked.*

**Originality:** *The originality of this paper lies in its reconceptualization of labor and industrial relations through a humanistic and interdisciplinary lens. Unlike traditional approaches that treat labor as a purely economic factor, this study emphasizes its cultural, psychological, and social dimensions. By linking labor to Maslow’s hierarchy of needs, the paper offers a novel framework for understanding how work contributes to human development and organizational sustainability. The research also introduces innovative perspectives inspired by sports training methodologies and game theory, suggesting that individualized approaches to labor management can enhance performance and foster social cohesion. These insights are particularly relevant for Romanian public institutions, which face persistent challenges in human resource development and organizational culture. The paper advocates for a paradigm shift in labor relations—one that prioritizes empathy, cooperation, and strategic thinking over rigid hierarchies and transactional interactions. This approach not only enriches academic discourse but also provides practical recommendations for policymakers, managers, and labor representatives seeking to build resilient and inclusive labor systems.*



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*In conclusion, the study positions industrial relations as a strategic tool for navigating the complexities of modern labor markets. It calls for a renewed focus on interdisciplinary research, institutional reform, and human-centered labor policies that align with European standards and global best practices. By bridging theory and practice, the paper contributes to a deeper understanding of labor as a cornerstone of social and economic development in Romania and beyond.*

**Keywords:** *industrial relations; labor market institutions; human resource management; organizational culture; emotional intelligence; Maslow's hierarchy of needs; work motivation*



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## **LEVERAGING DEMOGRAPHIC HERITAGE FOR SUSTAINABLE DEVELOPMENT: EXPLORING FERTILITY, MIGRATION, AND HEALTH DYNAMICS IN MOLDOVA THROUGH THE GENERATIONS AND GENDER SURVEY**

**Ecaterina Grigoraș<sup>1\*</sup>, Tatiana Tabac<sup>2</sup>, and Maxim Slav<sup>3</sup>**

*<sup>1,2,3</sup>Center for Demographic Research, National Institute for Economic Research, Academy of Economic Studies of Moldova, Chișinău, Republic of Moldova*

*grigoras.ecaterina@ase.md, tatiana.tabac@ase.md, slav.maxim@ase.md*

*ORCID ID: 0000-0002-5607-5322, 0000-0001-9526-6642, 0000-0002-3061-1692*

*\*Corresponding author*

### **Abstract**

**Objective:** *This study explores how demographic evidence can be harnessed to inform sustainable development policies in the Republic of Moldova, with a focus on fertility, migration, and population health dynamics. By analyzing longitudinal data from the Generations and Gender Survey (GGS), the research aims to strengthen the analytical and informational basis for designing, implementing, and monitoring demographic and social policies. In the broader context of heritage capitalization, demographic structures and behavioral patterns represent a form of demographic heritage, a strategic societal resource that can drive long-term competitiveness and resilience.*

**Method:** *The study uses nationally representative data from the GGS electronic database, collected within the Generations and Gender Programme (GGP). A combination of descriptive statistical methods and comparative analyses is applied. Fertility patterns are analyzed by cohort to track changes in marital and reproductive behavior over time. Migration intentions are examined through multivariate models, identifying predictive factors and differences by gender and residential area. Self-Rated Health (SRH) is analyzed to highlight urban–rural and gender disparities.*

**Results:** *The results reveal significant shifts in family formation and fertility timing, with younger cohorts showing postponed transitions to marriage and parenthood. Migration analyses indicate persistent gender and urban–rural differentials, influenced by socio-economic conditions and future aspirations. Health indicators highlight structural inequalities, with rural populations and women reporting poorer health outcomes. These findings underline the importance of integrating demographic evidence into policy design to address emerging vulnerabilities and capitalize on existing demographic resources.*

**Originality:** *The originality of this study lies in its integrated demographic approach, linking fertility, migration, and health behaviors within the same analytical framework, and framing them as components of Moldova's demographic heritage. By employing GGS longitudinal data, the research contributes comparative insights that can support evidence-based policymaking. This perspective aligns demographic research with sustainable development strategies, emphasizing the role of population structures and behaviors as critical societal assets.*

**Keywords:** *demographic heritage; fertility; migration; health; Moldova; Generations and Gender Survey; sustainable development; demographic policy*

**Funding:** *This work was funded by the National Agency for Research and Development and was developed within the project "Facilitating Demographic Policies through the Exploration of Data from the Generations and Gender Study," Grant No. 24.80012.0807.11TC, 2024–2025.*



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## **HEALTHCARE PROFESSIONAL DIGITAL COMPETENCIES: A SYSTEMATIC REVIEW**

**Ioana Guțu<sup>1\*</sup>, and Mihai Ilea<sup>2</sup>**

<sup>1,2</sup>"Grigore T. Popa" University of Medicine and Pharmacy Iași, Romania

ioana.gutu@umfiasi.ro, ilea.mihai@umfiasi.ro

ORCID ID: 0000-0001-7801-0426, 0000-0002-3541-230X

\*Corresponding author

### **Abstract**

*Digitalization is a phenomenon that equally affects patients and professionals across large arrays of healthcare practice. It imposes rapid and adequate integration of procedures and workflows that ultimately result in different expectations and treatment when about patient care. Moreover, by integrating digitalization within the internal organizational systems, patient safety could become an issue, the reason for which the healthcare professionals' digital assessments and competencies need to be adequately upgraded and assessed.*

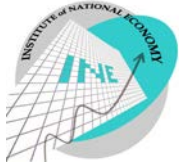
*The current manuscript strives for identifying the core healthcare professionals' digital competencies and assesses the factors related to the needs and expectations of the healthcare settings.*

*By following the PRISMA statement, a systematic literature review was performed, by using the settings and premises of the Scopus database; the search focused on the peer reviewed manuscripts published within 2020-2025. While limited to the medicine field and English written, the results retrieved a number of 28 documents out of which, after a careful evaluation in terms of title and keywords, a number of 12 manuscripts were considered for the analysis.*

*The results highlighted key competencies areas needed to be developed for healthcare professionals in relation to patients, including and not being limited to better communication skills in terms of adequate non-medical language use when explaining different health related conditions, social skills, ethical consideration, skills that can only be encompassed through a good professional but also adequate technological and digital profession-related skills. Literature highlights adequate motivators as to improve the willingness and experience in regard to their professional context. Moreover, in a large number of cases, not only collegial but professional and/or organizational support was deemed as necessary to build a trustworthy and positive patient experience for healthcare professionals and patients alike.*

*Results emphasize the stringent need for organizational healthcare practice to actively invest within the digital related patient-professional relation, by following not only a national but mostly a world-wide perspective, that of minimizing error and providing sufficient resources as to ensure adequate patient care and increase life expectancy.*

**Keywords:** medical care; management; patient care; professional digitalization.



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## **ARTIFICIAL INTELLIGENCE WITHIN THE PUBLIC AND PRIVATE INSTITUTIONAL FIELDS: A BIBLIOMETRIC ANALYSIS**

**Ioana Guțu<sup>1\*</sup>, and Mihai Ilea<sup>2</sup>**

<sup>1,2</sup>"Grigore T. Popa" University of Medicine and Pharmacy Iași, Romania

ioana.gutu@umfiasi.ro, ilea.mihai@umfiasi.ro

ORCID ID: 0000-0001-7801-0426, 0000-0002-3541-230X

### **Abstract**

*The unprecedented technological evolution across industries created the premises for a revolution across the healthcare management systems. Adopting and implementing artificial intelligence within the public and private hospitals and clinics alike, creates the premises for increased prediction accuracy and disease control, up to date classifications and patient customized diagnosis; such results benefit both the (inter)national medical systems and patients, study areas which are underpinned within the current research. On an organizational level, artificial intelligence creates the premises for accessing unprecedented computational capabilities, both medical and administrative personnel benefiting from an increased access to complex data interpretation and generation. The current research focuses on performing a bibliometric analysis on research related healthcare systems and the use of artificial intelligence within the last decade, namely from 2015 to 2025.*

*As for retrieving the existing research, the Scopus database has been used. Only English language published manuscripts were eligible for the research; moreover, a series of indicators were considered, such as the subject area described through titles, abstracts and keywords, the publication rate synopsis, the most active countries and authors, and the journals and institutions that published.*

*A number of 23 papers were retrieved, showing a steady increase starting with the year 2021; the countries with most research performed within the given area were USA, UK and France, while EU funded most of the research performed across its territory. Most of the publications resulted in research articles and Conference Papers, while medicine and computer science equally share the subject areas.*

*The current results highlighted through performing a bibliometric analysis focused on the development of artificial intelligence within the public and private healthcare (inter)national systems; the results will be beneficial not only for researchers, but mostly for practitioners that feel the need to understand the nature and impact of implementing and using artificial intelligence within the medical field.*

**Keywords:** artificial intelligence; public institutions; private institutions; healthcare; management



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## **SUSTAINABLE TOURISM IN GLOBAL LEADING DESTINATIONS**

**Alina-Petronela Haller**

*"Gheorghe Zane" Institute for Economic and Social Research, Romanian Academy, Iași Branch, Iași, Romania*  
alina\_haller@yahoo.com

ORCID ID: 0000-0002-2069-9889

### **Abstract**

**Objective:** Tourism has established itself among the sectors with major economic and social impact with the accentuation of global interdependencies, the development of communication-information technologies and transport, especially the air one. Tourism development depends on numerous economic, social and infrastructural factors such as geopolitical conditions, investments, culture, peace, environment, people, number of tourists, education, price and income levels, the economy size of the countries sending and receiving tourists, cultural heritage and natural resources to which are added other determinants related to economic growth and development. In the absence of additional factors of progress, tourism loses its explanatory power for growth, including in global leading destinations, so that, for a long-term contribution to economic progress, tourism becomes effective only when it is integrated into a broad development context which exists now. The increase in the population's inclination towards travel has favoured the development of some places to the level of their consecration as global leading destinations. These are landmarks in tourism development by contributing to economic growth and development with implications on the labour market and income. Tourism has positive and negative externalities, the latter manifesting themselves especially on the environment. This sector contributes to climate change, being unsustainable, and this aspect motivates the present analysis, because the global leading destinations are models for countries which make an objective of dedicating themselves to the global tourism sector in an environmentally friendly way, respecting sustainability requirements.

**Method:** Clustering and multiple regression methods were applied to specific indicators for the period 2000-2020. The sources of secondary data used are World Bank, Eurostat, Statista, Knoema, and [countryeconomy.com](http://countryeconomy.com). The sustainability was measured with the quantity of greenhouse gas emissions taking into account the effects of arrivals, international tourism receipts, air transport passengers, gross domestic product per capita, value added by industry and construction, renewable energy consumption, transport services, inflation rate, gross enrolment ratio in primary school, gross enrolment ratio in secondary school, gross enrolment ratio in tertiary school, average school years, individuals using the internet for digitisation and international homicides for safety. The analysed countries were France, Spain, Italy, Germany, UK, Mexico, Thailand, USA, China, and Turkey, the most accessed destinations in the pre-pandemic period. The clustering method was applied because the countries in the target group are geographically, economically, and socially heterogeneous and this method allows to identify common features among countries. Multiple regression allows us to identify the sustainable factors in the global leading destinations.

**Results:** The results show a relatively high heterogeneity in terms of sustainability among the global leading destinations. The ten global leading countries are split into four clusters: C1 (France, Spain, Italy, Germany, UK), C2 (Mexico, Thailand), C3 (USA, China), and C4 (Turkey). The industry and construction sector, social insecurity, inflation, and transport services development constitute unsustainable factors in all destinations. Renewable energy consumption is sustainable, while economic growth, education, and tourism indicators have antagonistic effects. Therefore, tourism attractiveness factors can be divided into three categories—with positive, negative, and antagonistic effects on the environment. Those results have decision-making implications at all levels and highlight the fact that a leading destination is not necessarily sustainable.

**Originality:** The originality of this analysis lies in the tourism attractiveness factors examined and the results obtained. The conclusions of the study are helpful to shape tourism development policies in balance with structural policies such as energy and environment, assuring the environment's sustainability.

**Keywords:** sustainability, global leading destinations, international tourism, tourism attractiveness, economic growth



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## **PROMOTING AGRICULTURAL PRODUCTS IN ALBANIA: FROM LOCAL PRODUCTION TO REGIONAL AND EUROPEAN EXPORT MARKETS**

**Ariola Harizi**

“Aleksander Moisiu” University, Durres, Albania  
ariolaharizi@uamd.edu.al

### **Abstract**

**Objective:** Albania’s agricultural sector possesses significant potential for regional and European market integration, driven by its diverse agri-food products, favorable climate, and growing focus on sustainability and quality. However, limited market access, weak branding, and fragmented export channels continue to constrain competitiveness. The objective of this study is to analyze the mechanisms through which Albanian agricultural products can be effectively promoted and positioned in regional and EU markets. It aims to explore strategies that combine value chain development, quality certification, digital marketing, and cooperative export models, aligned with EU agricultural and trade policies.

**Method:** The study employs a mixed-method approach combining secondary data review, stakeholder mapping, and case study analysis. It integrates three main dimensions: (i) analysis of existing national and EU frameworks that support agri-food exports and sustainable production; (ii) interviews and surveys with producers, exporters, and public institutions to assess export readiness and constraints; and (iii) benchmarking of successful regional practices from Western Balkan countries that have improved access to EU markets. The analytical model is supported by SWOT and value chain analysis to identify policy and operational gaps.

**Results:** Findings highlight that Albanian producers show strong potential in niche markets such as organic, traditional, and Mediterranean-origin products yet lack coordinated branding, certification, and logistics networks. Increased participation in regional cooperation initiatives, alignment with EU quality standards (PDO, PGI), and use of digital export platforms have proven to enhance visibility and demand. The results further indicate that strategic promotion based on product storytelling, traceability, and sustainability can significantly elevate consumer trust and competitiveness abroad. Strengthening producer cooperatives, public-private partnerships, and export promotion agencies emerges as a key enabler for scaling market access.

**Originality:** This research contributes a comprehensive framework for connecting Albanian agricultural production with regional and EU value chains through innovation in branding, digitalization, and cooperative export structures. It introduces an integrative perspective that views agricultural promotion not only as a marketing activity but also as a driver of rural development, cultural identity, and sustainable economic growth. The study’s interdisciplinary approach aligns agricultural competitiveness with the EU’s “Farm to Fork” and “Green Deal” principles, providing actionable insights for policymakers, producers, and trade institutions.

**Keywords:** Agricultural promotion, exports, sustainable competitiveness, regional cooperation, value chain, Albania, EU market integration



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## **EDUCATIONAL POLICIES FOR CULTURAL HERITAGE AND IDENTITY BUILDING: NARRATIVE COMMUNICATION AS A TOOL FOR SUSTAINABLE LOCAL DEVELOPMENT**

**Albana Hodaj<sup>1</sup> and Ilindena Sotirofski<sup>2</sup>**

<sup>1</sup>Faculty of Education, Continuing Education Center, "Aleksandër Moisiu" University, Durrës, Albania; <sup>2</sup>Youth for Women Foundation, Paris, France

albanahodaj@uamd.edu.al; ilindena@youthforwomen.org

ORCID ID: 0009-0004-0779-5552; ORCID ID: 0009-0000-3715-4562

\*Corresponding author

### **Abstract**

**Objective:** This study aims to examine the role of educational policies and narrative communication in capitalizing on cultural heritage for identity building and sustainable local development. Focusing on the intersection of education, culture, and public policy, the study explores how cultural narratives are used in educational contexts to strengthen civic awareness and promote social engagement, particularly in communities facing development challenges. The research seeks to support a theoretical and applied framework where education acts as a medium for transmitting cultural memory, fostering social inclusion, and developing adaptive policy models that integrate heritage into formal and informal learning systems. Furthermore, it aims to contribute to discussions on how identity can be co-constructed through shared cultural references, promoting democratic participation and regional resilience in line with the objectives of the European Education Area 2025 and Agenda 2030.

**Method:** The study employs a mixed-methods approach. Firstly, a document analysis was conducted on European and regional educational policies supported by European Union funding programs such as Erasmus Plus (EU programme for education, training, youth and sport), Creative Europe (EU programme for the cultural and creative sectors), and the Instrument for Pre-accession Assistance (IPA). This analysis aimed to identify how cultural heritage and narrative communication are integrated into education and development programs. Secondly, two case studies were examined in marginalized areas of southern Albania where cultural narratives were applied as pedagogical methods in formal and non-formal education settings. Data were collected through semi-structured interviews with teachers, cultural institution leaders, and project coordinators. Thematic analysis was applied to extract patterns related to identity formation, community involvement, and educational impact. Triangulation was ensured through cross-verification with project reports, curricular materials, and observational data. All methods were designed to ensure validity and contextual relevance of the findings.

**Results:** The findings indicate that educational projects incorporating cultural heritage content and participatory narrative approaches significantly contribute to identity awareness, community empowerment, and youth skills enhancement. Notably, increased interest in intangible heritage – such as language, literature, and oral traditions – was observed. In Albania, key heritage sites like Berat and Gjirokastër are UNESCO-listed, and the Vjosa River was designated as a National Park and included in the UNESCO tentative list in 2023. Cultural elements such as the fustanella, **Albanian iso-polyphony**, epic poetry, traditional costumes, and dialects have been actively reintegrated into educational content through both school curricula and informal cultural education programs. These practices were further supported by international projects promoting cultural transmission as a tool for regional inclusion and identity preservation. Quantitative data from participating schools indicated a 42% increase in student engagement in heritage-related subjects over a 12-month period. Additionally, over 65% of interviewed teachers reported that integrating cultural content improved class participation, especially in rural areas. Local cultural non-governmental organizations and municipalities also reported improved collaboration with schools through projects financed by the European Union. This indicates that education based on cultural heritage plays a vital role not only in enriching the learning process, but also in fostering participatory models of development that are deeply rooted in local identity.

**Originality:** This study provides an interdisciplinary perspective by connecting education, public communication, and cultural heritage in the framework of sustainable local development. While previous research has often treated heritage as a static resource or limited it to tourism development, this paper redefines it as a dynamic educational



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*instrument and a catalyst for civic identity formation. The originality lies in its integration of narrative communication strategies within educational policy analysis, exploring how stories, symbols, and traditions can serve as tools for empowerment and resilience. Furthermore, the study introduces a culturally responsive model of heritage education that can be adapted to diverse contexts in Southeast Europe. It addresses both the need for identity preservation and the demand for inclusive educational reform, especially in regions with limited access to cultural capital. This dual focus highlights the innovative potential of aligning heritage-based learning with broader social and developmental objectives.*

**Keywords:** *cultural heritage, identity building, narrative communication, public policy, education.*

**Funding:** *This work was supported by collaborative academic work within the Center for Continuing Education, part of the Faculty of Education at the "Aleksandër Moisiu" University of Durrës.*



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## **SECURE FINTECH FOR ECONOMIC RESILIENCE: STRENGTHENING DIGITAL PAYMENTS UNDER THE EU REGULATORY FRAMEWORK**

**Ionuț Horățău**

*Romanian Academy, School of Advanced Studies of the Romanian Academy, Doctoral School of Economic Sciences, National Institute for Economic Research "Costin C. Kiriteșcu", "Victor Slăvescu" Centre for Financial and Monetary Research*

*ionut.horatau@bnro.ro*

*ORCID ID: 0009-0000-3759-9713*

### **Abstract**

**Objective:** *This study explores how fintech ecosystems strengthen economic resilience in the European Union, with a focus on securing digital payment services. As digital finance increasingly underpins payments transactional infrastructure, ensuring robust security is critical for maintaining payment services users trust and sustaining payment market stability*

*Since the European Union is redefining its regulatory framework regarding payments as it moves from the revised Payment Services Directive (PSD2) to PSD3 and the Payment Services Regulation (PSR), this research analyzes how the evolving legal instruments at the EU level, along with the Digital Operational Resilience Act (DORA) and the monitoring of innovation in supervision, can contribute to increasing the security of electronic payments while supporting the technological progress made by Fintech entities;*

**Method:** *Using a systematic analysis of EU legislation, regulatory proposals, and guidelines from the European Banking Authority (EBA), the study examines how legal and supervisory tools interact to mitigate operational and cyber risks without hindering innovation*

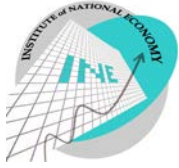
*Also, a mixed-method approach was adopted, combining regulatory analysis with expert interviews. Regulatory analysis examined EU frameworks, including PSD2, and emerging cybersecurity standards, to identify best practices for secure payments. Semi-structured interviews with fintech practitioners and practical expertise in the authorisation and regulation process provided useful insights into operational challenges, security innovations, and strategies employed by payment service providers to maintain resilience.*

**Results:** *The findings show that the new requirements set out by the regulatory framework regarding strong customer authentication (SCA), transaction risk analysis, tokenization, real-time fraud detection, cross-border incident reporting, and enhanced oversight of non-bank payment service providers are essential to ensuring safe and reliable payment transactions and systems. At the same time, innovation hubs, regulatory testing environments, and structured market involvement allow regulators to anticipate technological changes, adjust regulatory approaches, and maintain proportionality in law enforcement.*

*Policy recommendations include integrating security and resilience testing into authorization processes, strengthening coordination of oversight at the EU level, and updating technical standards in line with PSD3/PSR developments, but also with the technical requirements set out by DORA regarding the appropriate management of ICT risks as well as cyber threats. This study demonstrates how secure and innovation-responsive payment ecosystems can promote the EU's objective of creating a safe, competitive, and integrated digital financial environment.*

**Originality:** *This research provides a novel EU-centric evaluation by combining regulatory insights with practitioner perspectives, offering a practical and policy-oriented understanding of secure fintech-enabled payment systems. Unlike prior studies, it bridges theory and operational practice, demonstrating how well-designed security measures within the EU regulatory framework can reinforce both market confidence and macro-financial stability. By highlighting actionable strategies for regulators and industry stakeholders, the study contributes to advancing the resilience and security of digital finance in Europe.*

**Keywords:** *fintech regulation (EU); economic resilience; secure digital payments; PSD2 and open banking; cybersecurity in financial services*



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## **THE INDUSTRIAL HERITAGE OF PRAHOVA COUNTY, ROMANIA - DEVELOPMENT, PRESERVATION, AND SUSTAINABLE TRANSFORMATION**

**Răzvan Gh. V. Ionescu**

*Romanian Academy, School of Advanced Studies of the Romanian Academy, Doctoral School of Economic Sciences, National Institute for Economic Research "Costin C. Kiritescu", Institute of National Economy  
razvanx\_ray@yahoo.com*

### **Abstract**

**Objective:** *This research paper delves into the complex industrial heritage of Prahova County, Romania, aiming to comprehensively explore its historical development, preservation efforts, and prospects for sustainable transformation. The primary objective is to provide a detailed understanding of the industrial legacy of Prahova and its profound impact on the local and national economy and societal evolution.*

**Method:** *The study employs a multidisciplinary approach, integrating historical research, archival analysis and comparative analysis. A thorough examination of historical records and literature is conducted to trace the evolution of industries in Prahova. Comparative analysis is employed to juxtapose the industrial development in Prahova with other similar industrial regions.*

**Results:** *The research yields a comprehensive account of Prahova's industrial heritage, emphasizing its prominence in the oil, petrochemical, chemical, metallurgical and textile industries. The findings highlight the critical role these industries have played in shaping the region's economy and societal fabric as well as their significance during crucial events in Romania's history. Preservation efforts are discussed, emphasizing the need for balanced conservation and adaptive reuse to maintain historical integrity while encouraging sustainable redevelopment. The study also identifies challenges in heritage preservation and offers potential solutions for promoting responsible industrial heritage management.*

**Originality:** *This research contributes original insights into the industrial heritage of Prahova County, bringing together historical analysis and contemporary sustainability perspectives. The interdisciplinary approach allows for a complex examination of Prahova's industrial past, present, and future. Moreover, the proposed strategies for sustainable transformation offer innovative approaches to preserve and leverage industrial heritage in a manner that aligns with present day sustainability goals and community needs. The study thereby enriches the academic discourse on industrial heritage conservation and provides practical implications for sustainable urban development in similar industrial regions.*

**Keywords:** *industrial heritage, sustainable development, regional development, urban development, industrial heritage management.*



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## **THE RESISTANCE STRATEGIES OF SMALL COMPANIES AND MICRO-ENTERPRISES, TO THE COMPETITION OF LARGE STORES AND "ONLINE" ONES THAT USE ARTIFICIAL INTELLIGENCE**

**Florin Iordănoaia**

*floriniordanoaia@gmail.com*

### **Abstract**

*Due to the fact that large and "online" stores have started to obtain increasing market shares, in the "en-details" sales category, small traders have started to notice this competition, to perceive it as "unfair" and even to take steps for the political factor to adopt certain legislative measures, so that they can be protected or even favored. The use of Artificial Intelligence to obtain information about customers, then the creation of "statistical maps" of their requirements and the transmission of advertisements appropriate to their needs, the organization of online sales, of supply chains, practically leads to a reduction in the number of customers for small stores. Can this situation be considered a "real problem" for the national economy or is it a false problem, considering the principles of the market economy, of the freedom to establish commercial companies in any legal field of activity? In this paper, I have conducted research and analysis and obtained a series of relevant information for a region in Romania.*

**Objective:** *To develop strategies for resistance and development for small and micro-enterprises, in the context of increasing competition from large and online stores, which have begun to use Artificial Intelligence to find, fidelity and retain customers.*

**Method:** *I followed the situations and developments of some commercial companies, stores, warehouses, markets and stalls, from several localities, observed, questioned and recorded several opinions from their administrators regarding the competition from large and online stores. The research was organized to gain knowledge of the legislation in the field, of the European Union and nationally; I continued with the study of published works that followed the situations of small companies and the influence of Artificial Intelligence in the economy and especially in trade; I took steps to obtain information and data from the official documents of the analyzed companies, from interviews and free discussions with company representatives. Finally, I used the "concept transfer" method to transfer ideas in the field of research and I looked for solutions to achieve the established objectives.*

**Results:** *I developed a series of strategies for resistance to competition for small shops and micro-enterprises. Designed an information system model that can be created and used by small businesses, which uses Artificial Intelligence to attract and retain customers.*

**Originality:** *The work is original, it was not taken from someone else, and there are no other works with identical information or with the same objective.*

**Keywords:** *trade, shop, warehouse, strategy.*



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## **ENGAGING IGBO CULTURAL HERITAGE IDENTITY OF IKEJI TRADITIONAL FESTIVAL IN CONTEMPORARY NIGERIAN SOCIETY: THE PATHWAY TO LOCAL DEVELOPMENT**

**Chinonso Chiamaka Iwuagwu<sup>1\*</sup>, Ngozi Ezenagu<sup>2</sup>, and Olugbenga Mayowa Agboola<sup>3</sup>**

<sup>1,2,3</sup>Department of Tourism and Events Management, Afe Babalola University, Ado-Ekiti, Nigeria  
chinonsosweet24@gmail.com, ngoezenagu@gmail.com, agboolaolumayor@abuad.edu.ng  
ORCID ID: 0000-0002-8388-255X, 0000-0002-2296-5415, 0000-0003-3056-4694

### **Abstract**

**Objective:** Cultural heritage continues to play a pivotal role in shaping identity, fostering unity, and driving socio-economic transformation in African societies. Within Nigeria, cultural festivals serve as collective spaces where traditions, beliefs, and communal values are expressed, reinterpreted, and transmitted across generations. Among the Igbo of southeastern Nigeria, the Ikeji traditional festival celebrated in Arondizuogu, Imo State, is an annual event of immense cultural, spiritual, and developmental importance. It is widely regarded as a custodian of indigenous heritage, a reflection of communal pride, and a unifying ritual that connects the living, the ancestors, and future generations. Yet, in contemporary Nigerian society, festivals such as Ikeji face pressures from globalization, modernization, urban migration, and religious tensions that often undermine their relevance. Against this backdrop, this study engages the Igbo cultural heritage identity of the Ikeji traditional festival to critically examine how it functions not only as a symbolic performance of identity but also as a pathway to local development. The core objective of the study is to investigate how cultural identity embedded in the festival can be sustained in modern contexts while simultaneously serving as a tool for socio-economic empowerment, tourism promotion, and community development.

**Method:** The study will adopt a qualitative research design rooted in cultural studies and heritage management frameworks. Primary data will be generated through in-depth interviews with traditional rulers, custodians of indigenous knowledge, cultural practitioners, festival organizers, artisans, traders, and community members who actively participate in the Ikeji festival. Participant observation was also employed during the 2024 edition of the festival in Arondizuogu, enabling the researcher to experience firsthand the performances, rituals, and economic activities associated with the event. Complementary data will be drawn from secondary sources, including historical records, ethnographic accounts, and scholarly literature on Igbo culture, identity, and development. Data will be transcribed and analyzed thematically, focusing on three broad areas: the cultural-symbolic significance of the festival, its socio-economic contributions, and its contemporary challenges.

**Results:** The findings demonstrate that the Ikeji festival is not only a repository of Igbo cultural identity but also a platform through which traditions are re-enacted, reaffirmed, and celebrated. The masquerade displays, ritual sacrifices, communal feasting, indigenous music, and storytelling reaffirm values of unity, spirituality, and ancestral continuity. Economically, the festival generates significant local development outcomes by attracting visitors, stimulating tourism, and creating seasonal income for hoteliers, food vendors, transport operators, craft makers, and entertainers. The increased inflow of people during the festival also promotes informal trade networks, encourages the patronage of local products, and offers opportunities for entrepreneurial ventures. Socially, the festival fosters intergenerational learning as elders transmit cultural knowledge to youths, while family reunions strengthen kinship ties and communal solidarity. However, several challenges threaten the sustainability of the Ikeji cultural heritage. These include the growing commercialization of festival practices, misrepresentation of cultural rituals in the media, declining interest among youths who increasingly adopt Westernized lifestyles, and religious contestations that frame traditional festivals as incompatible with modern faith practices. Despite these challenges, the festival continues to serve as a vital cultural space that combines tradition with development potential.



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**Originality:** *The originality of this study lies in its integrative approach to viewing the Ikeji festival as both a cultural identity performance and a pathway to local development in contemporary Nigerian society. By bridging cultural heritage discourse with local economic development studies, the paper demonstrates how traditional festivals can be strategically positioned as engines of grassroots development in Nigeria. It further contributes to understanding how indigenous cultural practices, when properly harnessed, can coexist with modern development priorities. In so doing, the study calls for deliberate cultural policy interventions, systematic documentation, and active engagement of youth to ensure that the Ikeji festival remains a living heritage resource that advances both identity preservation and socio-economic transformation.*

**Keywords:** *Igbo cultural heritage, Ikeji festival, identity, local development, cultural preservation, traditional festivals*



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## **METHODOLOGICAL FRAMEWORK FOR IDENTIFYING CIVIC PARTICIPATORY TECHNIQUES AND TOOLS TO FOSTER SUSTAINABLE TOURISM DEVELOPMENT IN MULTICULTURAL DANUBE COMMUNITIES**

**Cristina Cornelia Florentina Lixândroi<sup>1</sup>, and Marioara Musteață-Pavel<sup>2</sup>**

<sup>1,2</sup> The National Institute for Research and Development in Tourism, Bucharest, Romania

curea@incdt.ro, pmioara@incdt.ro

ORCID ID: 0000-0001-6519-2398, 0000-0003-3160-7350

### **Abstract**

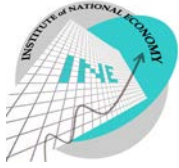
**Objective:** This study explores the development of a comprehensive methodology for identifying the techniques and tools used within civic participatory systems, focusing on their application to sustainable tourism development in multicultural communities along the Danube River. The research is grounded in the recognition that complex societal challenges require inclusive governance models that actively involve diverse social actors—citizens, NGOs, public institutions, and the private sector—in decision-making and innovation processes. The objective is to create a scientifically sound, adaptable, and locally contextualized framework that supports effective community engagement in tourism governance, enhancing transparency, legitimacy, and social acceptance of policies and strategies. The study likewise aligns with the Responsible Research and Innovation (RRI) paradigm promoted by the European Commission, which emphasizes collaborative efforts of society's actors to address overarching challenges through participatory science and innovation processes.

**Method:** The research employed a systematic process of identifying, documenting, and classifying participatory methods, techniques, and tools relevant to sustainable tourism. A methodological framework was elaborated based on scientific principles, adapted to the local context, and designed to evaluate the effectiveness of each participatory instrument. Techniques included the creation of a standardized synthesis sheet for each identified method, capturing objectives, stakeholder involvement, scope of application, strengths, and limitations. The analysis was further structured using key criteria such as level of application (policy, program, or project level), degree of stakeholder involvement (consultation to decision-making), time requirements, and contextual adaptability. These criteria facilitated the thematic grouping of participatory methods into seven categories, including deliberative, creative, research-based, digital, educational, decision-making, and democratic legitimization mechanisms.

**Results:** The research produced comprehensive research of participatory techniques applicable to the sustainable tourism context in Danube multicultural communities. Seven thematic groupings were detailed:

- Consultative and deliberative collective methods (e.g., Delphi method, focus groups, future panels) that facilitate informed debates and consensus building between citizens and experts.
- Participatory and creative solution-generation tools (e.g., future workshops, charrettes, hackathons) enabling collaborative ideation and co-creation of innovative tourism products and cultural events.
- Participatory research and citizen science methods (e.g., participatory action research, community-based participatory research, citizen monitoring) linking academia with local realities to document and monitor natural and cultural heritage.
- Digital and hybrid instruments (e.g., e-conferences, participatory digital planning models) enhancing remote collaboration, equal information access, and impact simulation for tourism-related decisions.
- Educational and collaborative university-based methodologies (e.g., science shops, co-designed research questions with NGOs) fostering applied learning and civic engagement among students and researchers.
- Multicriteria decision-making and evaluation tools (e.g., MCDA, citizen compasses) supporting prioritization of tourism strategies with social, economic, ecological, and cultural considerations.
- Deliberative and democratic legitimization mechanisms (e.g., citizens' juries, public assemblies) that increase transparency and inclusiveness in public policy-making processes.

The study demonstrates the potential of combining these methodologies to strengthen citizen engagement throughout tourism policy cycles, enhance intercultural dialogue, promote inclusive governance, and ensure legitimacy and



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*transparency of public tourism policies. Practical examples include deliberative workshops for transboundary tourism routes, community-led mapping of natural and cultural heritage, and digital platforms for cross-border consultations.*

**Originality:** *The study presents an original integrative methodology for identifying civic participation tools tailored specifically to the sustainable tourism development needs of multicultural Danube communities. This approach bridges academic research with practical governance by introducing a standardized documentation model and applying participatory research within a cross-cultural, transnational territorial framework. It also uniquely aligns the participatory instruments with the RRI framework, highlighting their role in democratizing knowledge production and embedding inclusivity in innovation processes for tourism development on a regional scale.*

**Keywords:** *civic participation, sustainable tourism; Danube region; participatory methods; Responsible Research and Innovation, intercultural dialogue, community engagement*

**Funding:** *This work was supported by the Ministry of Research, Innovation and Digitalization within Nucleu Programme [PN 23-42 01 02, 2023-2026]*



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## **THE IMPORTANCE OF THE INNOVATIONS TO PASS NATURAL HAZARDS IN ROMANIA AS ECONOMIC AND ENERGETIC METHOD**

**Patrick Ștefan Mehedințeanu**

*Institute of National Economy, Romanian Academy, Bucharest, Romania  
patrickstefm@gmail.com*

### **Abstract**

*The importance of innovations to pass natural hazards in Romania consists, for example, in innovations to pass earthquake situations, fire situations, and flood situations. The first situation is about magnetic levitation platforms that can make seismic wave absorption for Japanese buildings (see Okinawa Institute of Science and Technology studies and practice). The second situation is about how efficient the aircraft dust for forests and agriculture lands in fire, And the third situation is about how efficient the water computerized parapets in flood situations (see Holland situations after 70s.) In this respect, we can consider the climate change books at the Romanian Academy Publishing House as a scientific source, and for energetical transition, it can be as innovative as the Romanian blackout, the Varzob invention, and the radioisotopic battery with electricity provisions for 50 years. For climate change after the 90s, we have a series of international environment protocols, starting with Rio de Janeiro in 1992 and continuing to the Glasgow Environment Protocol nowadays. Nevertheless, it is very important, in my opinion, to see the correlation between economic growth and the innovation process (see Philip Aghion's academic work).*

*The **objective** for this article is to prove the importance of the innovations to pass natural hazards in Romania as an economic and energetic efficiency method.*

*As a **method**, I use the Tsukamoto Fuzzy Logic System with input and output variables as volatility indicators.*

*And finally, as a result, there is the efficacy of innovations for natural hazard situations in Romania.*

*The originality consists in the estimation of the Tsukamoto Fuzzy Logic System with input and output variables for innovations in three types of natural hazards, like earthquake situations, fire situations, and flood situations.*

**Keywords:** *innovations, natural hazards, Fuzzy Logic System*



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## **POST-SOCIALIST RURAL TECHNICAL AND INDUSTRIAL HERITAGE**

**Alexandru-Sabin Nicula<sup>1</sup>, Silvia-Teodora Duriga<sup>2</sup>, and Emanuela-Adina Nicula<sup>3</sup>**

<sup>1,3</sup> Romanian Academy, School of Advanced Studies of the Romanian Academy, Doctoral School of Economic Sciences, National Institute for Economic Research "Costin C. Kiritescu", Institute for Economic Forecasting, Bucharest, Romania; <sup>2</sup>Babeş-Bolyai University, Faculty of Geography, Cluj-Napoca, Cluj, Romania  
sabin.nicula@ince.ro, emanuela.nicula@ce-mont.ro, silvia.duriga@stud.ubbcluj.ro

### **Abstract**

**Objective:** The paper analyses the legacy of socialist-era infrastructures in the rural areas of Romania, focusing on their transformation into what can be defined as post-socialist rural technical and industrial heritage. These include former mechanisation stations, state farms, collective farms, storage facilities, and workshops that once supported agricultural modernisation and rural industrialisation. After 1989, many of these structures were left unused or partially repurposed, creating fragmented spaces that still reflect the economic and institutional changes of the transition period. The main objective is to identify how these sites, often regarded as brownfields, can be reinterpreted as economic and cultural assets with potential for sustainable rural development.

**Method:** The study combines documentary research with spatial analysis. Archival and statistical sources were reviewed to understand the institutional and territorial logic that generated these infrastructures. Field observations and spatial interpretation were complemented by a GIS-based inventory using ArcGIS Pro 3.5.4. This allowed the localisation and classification of sites according to their type, condition, and economic potential. The integration of spatial layers, including land use and accessibility, supported the mapping of rural industrial remnants and their correlation with regional development indicators.

**Results:** The research shows that these infrastructures form a distinctive component of Romania's rural landscape. They represent both the physical remains of a planned economy and the material memory of collective production. Their current condition varies widely, from reuse for small-scale enterprises to complete abandonment. Mapping highlights clear regional contrasts, particularly in former collectivised agricultural areas, where the density of such sites is higher. These findings suggest that post-socialist rural infrastructures could become strategic resources for local economies through adaptive reuse, heritage valorisation, and circular development initiatives.

**Originality:** The paper offers an integrated perspective on the intersection between economic geography, heritage studies, and rural development. It introduces the concept of post-socialist rural technical and industrial heritage as a framework for understanding the long-term transformation of rural economies in Central and Eastern Europe. The approach combines institutional analysis with spatial cartography to reveal how historical infrastructures can be reinterpreted as opportunities for innovation, investment, and identity reconstruction in contemporary rural Romania.

**Keywords:** post-socialist heritage, rural infrastructures, industrial legacies, GIS mapping, adaptive reuse, Romania



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## **TOURISM AND AI- LOWERING OR INCREASING INEQUALITIES?**

**Florin Marius Pavelescu<sup>1</sup>, and Cornelia Dumitru<sup>\*2</sup>**

<sup>1,2</sup> Institute of National Economy, Romanian Academy, Bucharest, Romania

pavelescu.florin@yahoo.com, cornelia.dumitru@gmail.com

ORCID ID: 0000-0001-8994-6190, 0000-0002-9766-4262

### **Abstract**

*Tourism is undergoing major changes whether from the perspective of the industry and the market opportunities it creates, or from the perspective of the consumers' based on their experiences. The last decade has been one of considerable shifts as some forms of technology consolidated in impacting the market, for instance social media networks, and were joined by new forms of digital technology changing the marketing, destination, travel, hospitality, transportation and tour operators' processes and operational landscape. Old and new challenges remain as the industry is at the centre of concerted debates about how enhanced use of digital technologies including artificial intelligence (AI) might on one hand diminish the negative environmental impacts of the industry and its subsectors, and on the other enhance the experiences of the customers. However, there continues to be a considerable and overlooked gap about how this is reflected in increasing disparities and inequalities, on both industry and customers' side.*

**Objective:** *The topic of inequality in tourism is multifaceted, and one perspective that might provide increased insight is addressing the geographies of inequality regarding the differences between and within regions, places from the perspective of the industry's development potential at national and EU-27 level. Therefore, the main objective is to investigate the preparedness degree of the Romanian industry in putting to good use the new ways of transferring knowledge about tourist destinations, and cultural heritage, as participation might be hindered by various reasons impeding the viability of the touristic offer, overall. Another objective is to analyse how AI might assist in improving access and equality regarding tourism activities. Several dimensions are of relevance with respect to inclusive tourism, incomes and wages, education, the impact of energy transition, the environmental impact of travel and tourism activities, and institutional quality. Associated with subjective considerations, these might provide an insight about ways in which tourism is also shifting and changing under the impact of AI.*

**Method:** *The paper uses a quantitative and qualitative data analysis approach for examining the integration of digital technologies in the Romanian tourism industry on one hand, and for understanding how these affect the options of the customers on the other hand. One methodological innovation is the use of data provided by social media platforms in association with data provided by stakeholders in the industry for mapping the multi-levelled geographies of inequality in tourism. By using instruments employed by both economic and social analysis a new socio-economic perspective is delivered.*

**Results:** *The investigation shows that tourism, and in particular at the national level, has still to address several challenges regarding the geographies of inequality and understanding the costs and benefits of implementing AI while at the same time adhering to the sustainability paradigm and its goals. The analysis shows once more that costs related to implementing innovative solutions in the industry must go hand in hand with new and attractive ways in educating the public about the benefits of tourism in general, and of the tourism dedicated to cultural heritage in particular.*

**Originality:** *The study continues to promote the concept of the sustainability paradigm for tourism from the perspective of the UN SDGs by granting special attention to the less explored concepts of inequality, accessibility, and the disparities that might emerge and even increase based on the use of AI, technological innovation associated with the new trends regarding tourism at EU-27 level. It aims to introduce a new perspective and gain insight on how tourism experiences can become a form of cooperation between industry and other interested stakeholders, including customers, for diminishing various still underexplored issues of inequality based on the preparedness and readiness of introducing and making good use of AI. Based on the performed analysis and gained insights, the paper contributes to the existing literature by offering a fresh perspective on how industry and customers might combine their experiences in diminishing various types of inequalities emerging in the framework of the industry.*

**Keywords:** *geographies of inequality, technological innovation, incomes, wages, education, energy transition, cultural heritage*



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## **THE REGIONAL DEVELOPMENT OF ROMANIA IN A CROSS-BORDER CONTEXT: CHALLENGES AND OPPORTUNITIES GENERATED BY CURRENT MULTICRISES**

***Teodor Emanuel Petreanu<sup>1</sup>, Otilia Manta<sup>2</sup>***

*<sup>1</sup>Romanian Academy, School of Advanced Studies of the Romanian Academy, Doctoral School of Economic Sciences, National Institute of Economic Research "Costin C. Kiriteșcu", Center for Financial and Monetary Research "Victor Slăvescu", Bucharest, Romania; <sup>2</sup>Romanian Academy, School of Advanced Studies of the Romanian Academy, Doctoral School of Economic Sciences, National Institute of Economic Research "Costin C. Kiriteșcu", Center for Financial and Monetary Research "Victor Slăvescu", Bucharest, Romania  
teodor.emanuel.petreanu@gmail.com, otilia.manta@rgic.ro*

### ***Abstract***

*This research delves into the complex phenomenon of multicrises, the simultaneous and interconnected crises in economic, social, ecological, and sanitary domains—with a particular emphasis on its regional impact within Romania. Utilizing a multi-theoretical approach, the study examines macroeconomic drivers through various economic cycle theories and highlights the individual's role as a key societal agent. A novel conceptual metaphor is introduced, portraying regional development and physical territory as a biological organism with interconnected flows and blockages, extended to the metaphysical and virtual dimensions of space. This framework explores how information, sound, and digital data can model economic dynamics and community interactions. The core finding indicates that recent successive crises have amplified existing structural inequalities between Romania's more developed western regions and its less developed eastern and southern peripheries. Consequently, the research advocates for a new paradigm in regional development measurement, focusing on resilience, adaptability, and sustainable transformation. It proposes key indicators such as a Regional Economic Resilience Index (IRER), the proportion of green and digital investments, and a Regional Socio-Economic Inclusion Index (IISE). This study provides a foundational basis for developing effective regional governance strategies in an era characterized by persistent and overlapping crises.*

***Keywords:*** virtual territory; regions; economic cycles; resilience



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## **THE ROLE OF ECONOMIC INTERESTS IN THE DEVELOPMENT OF CYCLICAL SECURITY CRISES**

**Vasylyna Podliesna**

*Institute for Economics and Forecasting, National Academy of Sciences of Ukraine, Kyiv, Ukraine*

*podlesnw2019@gmail.com*

*ORCID: 0000-0002-8435-1013*

### **Abstract**

**Objective:** *The aim is to determine the role of economic interests in the unfolding of cyclical security crises during global military-economic cycles.*

**Method:** *The study mainly applied logical and historical methods, as well as dialectical ascent from the abstract to the concrete, including general scientific methods of analysis and synthesis, induction and deduction. To achieve the research goal, data from the Stockholm International Peace Research Institute.*

**Results:** *The economic interests of geopolitical actors at the global level are the driving force not only behind economic activity, but also behind cyclical military-economic processes. Economic interests form a dynamic system of contradictions and common interests of all participants in the global geopolitical process, which is cyclical in nature. The cycle-forming factor in the unfolding of the cyclical geopolitical process on a global scale is the periodic crises of the world system, which threaten the security of civilizational development.*

*Social violence in the form of wars, revolutions, and other types of public aggression is caused by periodic exacerbations of internal contradictions in social development. During wars and revolutions, the foundations are laid for the resolution of contradictions in social development, in particular geopolitical ones. Revolutions result in the partial resolution of contradictions between social classes and transform the class structure of society, while wars result in the resolution of geopolitical and civilizational contradictions and reformat regional (if the wars are local in nature) geopolitical systems or the global geopolitical system (if the war becomes global in nature). Periods of large-scale social violence are periods of destabilization of social organisms. Wars and revolutions, which occur periodically in the course of cyclical social development, lead to a critically dangerous loss of stability and security of civilizational development at the level (local or global) at which they unfold.*

*Often, the response of social organisms, in particular states or their military-political blocs, to security crises is a transition to a mobilization form of social life, which radically changes not only political and ideological orientations, but also the economic interests of the state and society as a whole. In order to ingrain in the public consciousness, the need to obey the demands of a mobilized society, it is necessary to introduce some form of a state of emergency. This inevitably limits the opportunities for economic actors whose activities do not meet the priorities of the mobilization model of the economy to pursue their economic interests, as well as the opportunities for ordinary members of society to pursue their economic interests aimed at improving their quality of life.*

*Measures to combat the spread of COVID-19, which hampered economic activity and social life in general, as well as the recent intensification of local and global military conflicts, have created conditions for a shift in the economic interests of many countries from improving the welfare of their citizens to militarization. This trend is evidenced primarily by economic indicators. According to the Stockholm International Peace Research Institute (SIPRI), global military spending increased by 37% between 2015 and 2024 and grew in all five geographical regions. Compared to 2002, the total sales of the 100 largest arms manufacturers and military service providers doubled in 2023 (from \$331 billion to \$632 billion).*

*Cyclical security crises manifest themselves most significantly during crisis-militaristic phases of global cycles (in particular, the long cycles of world politics described by G. Modelski and W. Thompson, and the cycles of hegemony described by I. Wallerstein), which unfold in the form of large-scale wars. According to the theory of long cycles in world politics, around 2026 will see the beginning of a transition to the next crisis-militaristic stage in the development of the modern world system, which will last for about 30 years. In such conditions, the global military potential accumulated today, including non-conventional kinds of weaponry, exacerbates the next security crisis to the level of a threat of a global catastrophe with irreversible and devastating consequences for the global ecosystem.*



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*Today marks the beginning of a new crisis-militaristic stage in the development of the world system, which will change the conditions for the realization of the economic interests of states, their associations and transnational business. In particular, in historical retrospect, during the deployment of crisis-militaristic phases of global cycles, foreign trade relations were conducted in accordance with protectionist policies, and after their completion, the capitalist world system entered another wave of free trade.*

**Originality:** *Geopolitical competition between geopolitical actors is primarily aimed at achieving a position in the global geopolitical system that expands opportunities for the realization of their economic interests. The intensification of geopolitical competition, based on the exacerbation of geopolitical contradictions, periodically leads to the outbreak of large-scale military conflicts, during which the world system loses its stability and security of development. In general, security crises caused by outbreaks of social violence (wars, revolutions) periodically unfold in cyclical social development.*

*The unfolding of crisis-militaristic phases of global military-economic cycles leads to the transformation of the global geopolitical system, resulting in either the emergence of a new leader of the global geopolitical system or a change in the geopolitical strategy of the old leader who has retained its dominance. The leader of the global geopolitical system subsequently determines the development guidelines for the whole world, which creates new conditions for the realization of economic interests. The leading state in the global geopolitical system receives the main preferences for realizing its economic interests. Its partners are also in a more advantageous position than other countries in the system of international economic relations that has established itself after another period of crisis and militarism.*

**Keywords:** *economic interests, security crises, military-economic cycles, crisis-militaristic phases, global geopolitical system.*



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## **AGRICULTURAL INSURANCE AS A MECHANISM FOR HERITAGE CAPITALIZATION AND SUSTAINABLE LOCAL DEVELOPMENT IN THE WESTERN BALKANS**

**Etmond Shkembî<sup>1</sup>, and Brunela Trebicka<sup>2\*</sup>**

<sup>1,2</sup>"Aleksander Moisiu" University, Durrës, Albania

etmondshkembî@gmail.com; brunelatrebicka@uamd.edu.al

\*Corresponding author

### **Abstract**

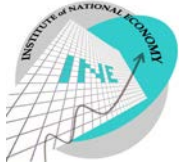
**Objective:** Agriculture in the Western Balkans is not only an economic activity but also a vital component of cultural heritage, community identity, and local sustainable development. Farmers in this region, however, face continuous exposure to systemic risks: climate change, natural hazards, volatile food prices, and geopolitical insecurities. These pressures amplify vulnerabilities, threaten traditional practices, and weaken the resilience of rural economies. Within this complex environment, agricultural insurance emerges as a critical instrument that connects economic resilience with the safeguarding of heritage-based agricultural systems. The objective of this study is to examine the role of agricultural insurance as a mechanism for mitigating risk, preserving cultural heritage, and supporting local competitiveness in the framework of the green and digital transitions encouraged by the European Union. The paper aims to provide both theoretical insights and empirical evidence on how innovative insurance models can contribute to heritage capitalization and ensure food security in the context of perpetual crises.

**Method:** The study employs a mixed-method approach combining desk research, policy analysis, and empirical data collection from case studies in Albania and selected Western Balkan countries. The methodological framework integrates three dimensions: (i) a review of the literature on agricultural insurance and risk management instruments; (ii) analysis of existing EU and national policies on green and digital transition, public-private partnerships, and rural development; and (iii) field data and interviews with farmers, insurers, and policymakers, focusing on the accessibility and effectiveness of agricultural insurance schemes. Comparative analysis is used to benchmark regional practices with those of EU member states, thereby identifying gaps and opportunities for adaptation.

**Results:** The findings demonstrate that agricultural insurance remains underdeveloped in the Western Balkans, with limited coverage, low awareness among farmers, and insufficient public support mechanisms. Nevertheless, where pilot schemes have been implemented—such as weather-indexed insurance or partial premium subsidies—results indicate significant improvements in farm resilience, income stability, and willingness to adopt sustainable practices. Importantly, agricultural insurance does not function solely as a financial safety net: it also incentivizes innovation by reducing the perceived risk of investing in modern technologies and environmentally friendly solutions. The integration of digital tools (e.g., satellite data, mobile applications) into insurance models increases transparency and efficiency, thereby fostering trust among farmers. Moreover, the alignment of insurance with heritage-based agricultural products (such as traditional crops or organic farming linked to local identity) contributes to the dual goal of protecting cultural heritage and promoting competitiveness in domestic and export markets.

**Originality:** This study's originality lies in framing agricultural insurance not only as an economic and financial tool but also as an instrument of heritage capitalization and sustainable local development. Unlike existing research that treats insurance primarily within the scope of risk transfer, this paper positions it as a multidimensional policy instrument that connects cultural identity, crisis resilience, and innovation in the context of the twin transition (green and digital). By linking insurance schemes with heritage-oriented rural strategies, the study introduces a novel interdisciplinary approach that expands the function of agricultural insurance from a narrow financial safeguard to a broader enabler of sustainable competitiveness. This perspective provides valuable implications for policymakers, international donors, and local institutions aiming to strengthen resilience, preserve cultural heritage, and stimulate inclusive growth in the Western Balkans.

**Keywords:** Agricultural insurance, cultural heritage, sustainable development, food security, twin transition, Western Balkans, public-private partnership



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## **MEASURING SUSTAINABLE DEVELOPMENT IN THE CONTEXT OF ETHIOPIAN CULTURAL HERITAGE**

**Getahun Worku Tadesse**

*Werabe University, Ethiopia*

*Email: getahunworku08@gmail.com*

### **Abstract**

**Objective:** *This study examines the integral role of Ethiopian cultural heritage in promoting sustainable development through a comprehensive assessment of its economic, social, and environmental dimensions. The objective is to highlight the significance of cultural heritage as both a catalyst for economic growth and a means of fostering social cohesion and environmental stewardship.*

**Method:** *A mixed-methods approach was employed, combining qualitative and quantitative techniques to gather data from various stakeholders, including local communities, policymakers, and cultural heritage experts.*

**Results:** *Key findings reveal that cultural tourism generates substantial economic benefits, enhances community engagement, and reinforces cultural identity. Additionally, conservation efforts linked to cultural heritage are shown to support biodiversity and promote sustainable practices rooted in traditional ecological knowledge. The study proposes a robust framework for measuring sustainable development in cultural heritage contexts, emphasizing the interconnectedness of the three dimensions.*

**Originality:** *This research underscores the potential of cultural heritage to advance sustainable development goals, ensuring that Ethiopia's rich cultural legacy is preserved for future generations.*

**Keywords:** *Ethiopian cultural heritage; sustainable development; cultural tourism; environmental stewardship; social cohesion*

**Funding:** *This work was supported by the Werabe University Research unit.*



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## **THE REGIONAL CONFIGURATION OF ENERGY SUPPLY IN TIMES OF CRISIS**

**Ștefan-Cătălin Topliceanu**

*"Alexandru Ioan Cuza" University of Iași, Faculty of Economics and Business Administration, Iași, Romania*

*stefan.topliceanu@uaic.ro*

*ORCID ID: 0000-0003-2496-4448*

### **Abstract**

*The Russian-Ukrainian war has profoundly affected the geopolitical and economic landscape of Eastern Europe, while Romania has a strategic position as a neighbouring country, highlighting the importance of energy security to resist external shocks. Traditional supply records disruptions during the conflict, proving regional risks and vulnerabilities regarding natural gas supply and consumption, a resource that continues to be used by Romanian counties in a dominant way.*

**Objective:** *This study aims to identify regional patterns of energy vulnerability and resilience through a comparative assessment of Romania's counties regarding the varying levels of dependence on natural gas. The focus on natural gas emerges from the desire of the counties to align with the European goals for decarbonization and energy diversification. Through a comparative analysis at the country level, this study aims to suggest pathways for enhancing regional security.*

**Method:** *A composite index was employed for the period 2014-2024 in order to capture the evolution of natural gas supply, consumption and trade across Romanian counties. The years 2014-2024 represent the period between the annexation of the Crimean Peninsula and the full-scale war in Ukraine, which emphasises the need of Romanian regions to withstand external energy crises. The index integrates multiple indicators related to natural gas consumption, expenditure for persons and households, energy distribution, imports and exports. Statistical analysis and spatial maps are used to capture regional patterns.*

**Results:** *The main findings indicate notable regional disparities and vulnerabilities. While some counties are more sensitive to geopolitical disruptions and vulnerable to imported natural gas, others record remarkable performance in reducing energy consumption dependencies. Western counties are more diversified in energy investments and record higher levels of resilience, while counties in southern or eastern regions are exposed to greater risks in times of supply disruptions and price crises.*

**Originality:** *This paper provides new insights regarding Romania's internal territorial disparities in natural gas supply within the context of neighbouring war. The analysis shows how local and national policies can enhance regional energy resilience, requiring investments in supply routes, infrastructure and renewable energy solutions. The originality and value emerge from its territorial approach to measuring natural gas dependence, offering insights for national authorities and regional policymakers to design appropriate strategies.*

**Keywords:** *regional security; regional vulnerabilities; resilience; Ukrainian war; energy dependency; energy imports.*

**Funding** *This research has been conducted with the support received through the project 'City: Future Organisation of Changes in Urbanisation and Sustainability' (CF 23/27.07.2023), financing contract no. MCID-DGGCPNRR-760277/26.03.2024, financed by the Ministry of Investment and European Projects through National Recovery and Resilience Plan for Romania within project call – PNRR-III-C9-2023-18 PNRR/2023/Component 9/Investment 8. [Financed by the European Union – NextGenerationEU].*



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# PAPER PRESENTATIONS

**DAY 2, October 31, 2025**

## **CIRCULAR ECONOMY BUSINESS MODELS IN THE DANUBE REGION: INSIGHTS FROM MOLDOVA AND BEYOND**

**Nelli Amarfii-Railean**

*"Alecus Russo" Bălți State University, Bălți, Republic of Moldova*

*amarfii.nelli@usarb.md*

*ORCID ID: 0000-0001-5216-6182*

### **Abstract**

*The transition towards a circular economy (CE) has become a cornerstone for sustainable development, particularly in regions characterized by resource constraints and socio-economic diversity, such as Moldova and the wider Danube Region. This paper explores how circular economy business models (CEBMs) support innovation, resource efficiency, and resilience in key sectors, while addressing systemic challenges such as limited infrastructure, financial barriers, and inconsistent legislation. The study aims to highlight the potential of CE practices to drive sustainable competitiveness, aligning with EU Green Deal priorities and the UN Sustainable Development Goals (SDGs).*

*The research is based on the DECIDE project deliverables, which analysed 30 circular economy business models across 10 countries in the Danube Region. These models were documented using the Business Model Canvas framework and evaluated through a 20-dimension analysis aligned with SDGs. Additionally, Moldova's country report and policy landscape were examined, focusing on legislative instruments such as the Waste Law No. 209/2016 and the De Minimis Aid Scheme for CE transition. Case studies—including Renergy (battery recycling), Bio Plastic (biodegradable packaging), and Maicon (textile recycling)—are presented as practical illustrations of CE implementation.*

*Findings show that CE models deliver significant benefits: conservation of raw materials, reduction of CO<sub>2</sub> emissions, job creation in recycling and eco-innovation sectors, and improved stakeholder collaboration. For instance, Renergy's battery recycling contributes to material recovery and reduced dependence on mining, while Bio Plastic provides alternatives to conventional packaging, aligning with EU directives. Despite these achievements, challenges remain in terms of financial constraints, limited training, and insufficient infrastructure.*

*The originality of this study lies in its integrative approach: combining cross-country comparisons with in-depth analysis of Moldova's CE landscape. By linking policy frameworks, business model innovation, and regional collaboration, the paper provides a comprehensive perspective on how CE can drive sustainable economic growth. Moreover, it positions Moldova as a case study for emerging economies aiming to adopt CE practices, while offering scalable insights for the wider Danube Region.*

**Keywords:** *Circular economy, business models, Moldova, Danube Region, sustainability, recycling, innovation, SDGs*

**Funding:** *This work was supported by the DECIDE Interreg Danube Transnational Programme, Work Package 2.1.*



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## **PRIVATE PENSIONS: SOLUTIONS FOR PENSIONERS' INCOME SECURITY IN ROMANIA**

**Mădălina-Gabriela Anghel<sup>1\*</sup>, and Denis-Arthur Strijek<sup>2</sup>**

<sup>1</sup>Romanian Academy, Institute of National Economy, Bucharest, Romania / Artifex University of Bucharest, Bucharest, Romania; <sup>2</sup>Bucharest University of Economic Studies, Bucharest, Romania

madalinagabriela\_anghel@yahoo.com; denis.strijek@gmail.com

ORCID ID 0000-0001-8705-034X; 0009-0003-2997-8571

\*Corresponding author

### **Abstract**

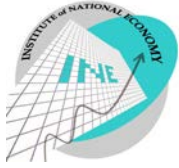
Romania's demographic trajectory shows a sharp ageing of the population and an increase in the elderly dependency ratio, together with significant social vulnerabilities among pensioners. The decline in the active population and the increase in the share of people over 65 years of age exert significant pressure on the public redistributive pension system. As a result, many pensioners face the risk of poverty, insufficient income and social exclusion, especially those with incomplete contribution histories or long periods of informal work (without a contract and without contributions to the public system). The objective of this study is to assess to what extent private pensions in Romania, namely Pillar II (privately administered) and Pillar III (optional), can represent an effective solution for supplementing pensioners' incomes, reducing poverty and relieving the public pension budget.

This paper uses a mixed approach. In the first phase, based on data published by the National Institute of Statistics and Eurostat, demographic and economic data on Romania are analyzed, compared to the European Union average and other member states, including the evolution of the elderly dependency ratio, poverty rates among pensioners, the average level of pensions and the income replacement rate. Subsequently, the main statistical indicators on private pension funds (asset size, contribution rate, returns and participation rate) are examined, based on reports from the Financial Supervisory Authority and the European Insurance and Occupational Pensions Authority. The comparative analysis includes European and OECD countries (e.g. Sweden, the Netherlands, Germany), where contributions to private or occupational funds are higher and capitalization mechanisms generate significant additional pensions. Finally, prospective scenarios are developed through modeling: maintaining the current contribution rate to Pillar II, its progressive increase, stimulating participation in Pillar III and the use of tax incentives.

Romania has an old-age dependency ratio of approximately 31.2%, with a medium- and long-term upward trend, which increases the pressure on public pension financing. The private pension system in Romania has experienced considerable expansion in recent years, both under Pillar II and Pillar III. Fund assets have grown steadily and the number of participants has increased significantly, indicating a wider adoption of private pensions as a mechanism for supplementing retirement income. The contribution to Pillar II represents 4.75% of the total social security contribution, but the current level is not sufficient for an adequate replacement rate, especially for people with low or middle incomes. Compared to other European countries, where contributions to private systems are higher, Romania could benefit from a progressive increase in contributions and from stimulating participation in Pillar III through attractive tax incentives. Strengthening private pensions can reduce the vulnerability of retirees, limit poverty in old age and relieve the public system by transferring part of the financial responsibility to private capitalization.

The **originality** of this study lies in the integration into a single analytical framework of three essential dimensions: (i) the vulnerabilities generated by demographic aging (dependency, poverty, exclusion), (ii) the performance and potential of private pensions in Romania and (iii) the long-term sustainability of the public pension system. Unlike other research that separately addresses demographic or financial aspects, this study carries out a comparative and prospective assessment, with scenarios adapted to the Romanian institutional context. It also analyzes the differences in impact depending on income level, urban/rural environment and contribution history, providing a detailed perspective on how private pensions can contribute to reducing social inequalities. Through this approach, the article offers an innovative perspective on the role of private pillars as a complementary solution for strengthening income security at retirement age and alleviating pressures on the public pension system.

**Keywords:** private pensions, population aging, pension policies, private capitalization, income security.



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## **ECONOMIC DIMENSIONS OF INNOVATION IN HERITAGE CAPITALIZATION: A BUSINESS INTELLIGENCE APPROACH WITHIN THE GREEN AND DIGITAL TRANSITIONS**

**Iges Banda<sup>1\*</sup>, and Jora Banda<sup>2</sup>**

<sup>1</sup>Western Balkans University, Tirana, Albania; <sup>2</sup>European University of Tirana, Tirana, Albania  
igesbanda@gmail.com; jora.banda1@gmail.com

ORCID ID: 0000-0001-6789-0771; 0009-0004-8497-2903

\*Corresponding author

### **Abstract**

**Objective:** The purpose of this paper is to develop a theoretical framework that investigates the economic dimensions of innovation in heritage capitalization, with a particular focus on the role of business intelligence in shaping sustainable strategies within the broader green and digital transitions. Heritage—both cultural and natural—has traditionally been regarded as a static and preserved asset. However, in the context of accelerating global challenges, this study reconceptualizes heritage as a dynamic economic resource capable of generating innovation, fostering resilience, and driving inclusive growth. The main objective is to outline how heritage, when embedded into green and digital agendas, can become a source of competitive advantage and a catalyst for transformative development pathways.

**Method:** This study adopts a theoretical approach, drawing upon interdisciplinary perspectives in the economics of innovation, heritage studies, and sustainability transitions. The methodological foundation relies on a critical review and synthesis of existing literature, complemented by conceptual modeling that links heritage capitalization to innovation-driven economic processes. Business intelligence is employed as the analytical lens through which heritage is examined, as it enables data-driven insights, predictive capacity, and strategic optimization. While no empirical testing is carried out, the framework builds on the systematic integration of theory and applied knowledge from the fields of circular economy, digital transformation, and cultural economics.

**Results:** The theoretical findings suggest that heritage capitalization plays a dual role within contemporary economies. First, it facilitates the emergence of new business models that are closely aligned with sustainability principles, such as those advanced by the circular economy and green growth agendas. These models reposition heritage as a platform for generating economic value while simultaneously ensuring environmental stewardship and cultural preservation. Second, heritage capitalization strengthens territorial competitiveness through digital valorization, whereby intelligent technologies are harnessed to create new forms of accessibility, visibility, and community engagement. Business intelligence emerges as a decisive enabler in this process, allowing stakeholders to design strategies that balance profitability with social and environmental responsibility. Together, these insights underscore the transformative potential of heritage as a lever for both economic resilience and sustainable innovation.

**Originality:** The originality of this study lies in its integration of heritage studies with the discourses of green and digital transitions, framed through a business intelligence perspective. While heritage has often been studied in relation to preservation, cultural identity, or tourism, this paper advances a novel interpretation of heritage as an economic and innovative resource with future-oriented potential. By employing business intelligence as the conceptual bridge, the study contributes to the literature in two distinctive ways: it introduces a structured framework for analyzing heritage through data-driven methodologies, and it situates heritage within the dual imperatives of sustainability and digitalization. This theoretical contribution thus invites scholars, policymakers, and practitioners to move beyond traditional views of heritage as static, positioning it instead as a cornerstone for innovative, inclusive, and resilient economic systems in times of accelerated global change.

**Keywords:** heritage capitalization, innovation, business intelligence, green transition, digital transition, circular economy, sustainable development



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## **BIG DATA-DRIVEN INNOVATION ECONOMICS IN THE TWIN TRANSITION OF HERITAGE CAPITALIZATION**

**Jora Banda<sup>1\*</sup>, and Iges Banda<sup>2</sup>**

<sup>1</sup>European University of Tirana, Tirana, Albania; <sup>2</sup>Western Balkans University, Tirana, Albania  
jora.banda1@gmail.com; igesbanda@gmail.com

ORCID ID: 0009-0004-8497-2903; 0000-0001-6789-0771

\*Corresponding author

### **Abstract**

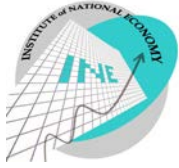
**Objective:** Cultural heritage has long been recognized as an economic asset, but its full potential as a driver of sustainable development has remained underexplored. Traditional economic theories often struggle to capture the multidimensional value of heritage, especially its intangible components such as cultural identity, collective memory, and symbolic capital. In the current global landscape, characterized by environmental pressures and accelerating digitalization, the “twin transition” the green transition and the digital transition present new opportunities for rethinking the economics of cultural heritage. The objective of this study is to theoretically examine how big data-driven insights can inform innovation economics in the capitalization of cultural heritage, aligning it with the principles of sustainability, digital integration, and long-term resilience. By situating cultural heritage within innovation-driven economic theory, this paper seeks to conceptualize a new framework for its valorisation under conditions of rapid socio-economic and technological change.

**Method:** The study adopts a theoretical and conceptual approach, synthesizing insights from economics, innovation theory, and data science. The analysis is built on a literature review of innovation economics, big data applications in socio-economic systems, and heritage capitalization strategies. Big data is considered both as a methodological tool and as an economic enabler, with emphasis on its capacity to generate actionable insights into resource allocation, consumer behaviour, market competitiveness, and sustainability outcomes. Although no empirical testing is conducted, the theoretical model outlined here builds on existing case studies and documented best practices in the use of big data for cultural heritage management, digital platforms, and green transformation monitoring.

**Results:** The main result of this theoretical inquiry is the articulation of a conceptual framework that positions big data as a catalyst for aligning cultural heritage with innovation economics in the context of the twin transition. Specifically, the study highlights three core contributions. First, big data enhances the capacity of heritage-linked economies to support the green transition by enabling real-time monitoring of energy efficiency, carbon footprints, and sustainable resource management in heritage sites and related industries. Second, big data facilitates the digital transition by driving the creation of digital heritage platforms, immersive experiences, and smart systems that extend the economic reach of heritage assets. Third, big data enables more adaptive and resilient economic models, allowing policymakers and stakeholders to anticipate crises such as food, energy, or security shocks and adjust strategies to safeguard heritage-driven sectors. Collectively, these insights suggest that big data can redefine the economic role of cultural heritage from a static preserved asset to a dynamic driver of innovation-oriented growth.

**Originality:** The originality of this study lies in its theoretical integration of big data, innovation economics, and cultural heritage within the framework of the twin transition. While previous research has addressed the economic potential of cultural heritage and the transformative role of digital technologies, few studies have explicitly connected these domains through the lens of innovation economics. This paper advances the discourse by proposing that big data not only supports but actively reshapes the mechanisms of heritage capitalization, offering new pathways for sustainability, digital integration, and crisis resilience. By conceptualizing big data as both a measurement instrument and an innovation enabler, the study contributes to the broader understanding of how cultural heritage can be leveraged as a strategic economic resource in the 21st century.

**Keywords:** big data; innovation economics; cultural heritage; twin transition; sustainable development; digital economy; heritage capitalization



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## **INNOVATION IN HERITAGE CAPITALIZATION: STATE OF ART AND IMPLICATIONS OF VIRTUAL MUSEUMS IN THE ITALIAN CONTEXT**

**Maximilian Broglio**

University Mercatorum, Rome, Italy

[maximilian.broglio@studenti.unimercatorum.it](mailto:maximilian.broglio@studenti.unimercatorum.it)

### **Abstract**

*In a global context characterized by widespread degradation and the crossing of numerous planetary boundaries, humanity is undergoing inevitable changes in all sectors with a strong anthropogenic impact. The dual green and digital transition (part of a broader concept of sustainability, understood holistically) is no longer a vague and distant idea but represents a fundamental driving force for escaping the quicksand in which humanity is trapped.*

**Objective:** *The study aims to investigate how the cultural heritage conservation sector can be positively influenced in this way, through a conscious digitalization of cultural content accessible to visitors. Specifically, virtual museums were analysed in the Italian context, investigating their unique characteristics, advantages, and trade-offs through different analytical methodologies. It should be noted that virtual museums are digital entities that allow visitors to explore collections, exhibitions, and museum environments through the use of digital devices, seeking to offer an immersive and interactive experience that mimics a real visit. They can be faithful reproductions of physical museums or feature entirely digital exhibitions, using technologies such as virtual reality (VR), augmented reality (AR), 360° photography and modelling, and online sharing platforms to allow anyone, regardless of location, to access culture (exhibitions, archaeological sites, guided tours, etc.) without geographical or temporal barriers. It should also be noted that Italy represents a valuable testing ground for the exploitation of these technologies: it contains a remarkable historical, artistic, and cultural heritage, the product of centuries of sedimentation and well-suited to connecting the past and present of the nation's cultures. According to art historian Antinucci, Italy's artistic and cultural heritage is so important because «in recent centuries, Italy has developed a very careful and sophisticated culture of conservation, which has valorised individual monuments, large and small, as part of a whole rooted in the territory, a network rich in identity-building significance, in which the value of each individual monument or art object derives not from its isolation, but from its insertion into a vital context».*

**Method:** *Specifically, at a methodological level, a qualitative analysis was conducted, reviewing the existing literature on the Italian context to then assess the main (but not limited to) distinctive elements and advantages of digitally exploiting museum visits. An online survey was also considered, using a representative sample, to understand the perceptions and impressions of regular and non-regular museum visitors regarding this form of museum experience.*

**Results:** *The analysis revealed several advantages that were grouped into two categories: advantages for visitors and advantages for museums. Visitor benefits include global accessibility, which means they are not limited by geographic location, allowing anyone, anywhere, to visit collections and exhibitions without physical travel, despite, for example, potential health or financial constraints or time constraints, thus ensuring greater inclusiveness; 24-hour accessibility without time restrictions or temporary closures; immersion and customization through the use of virtual and augmented reality, thus offering an interactive and engaging experience, helping visitors explore historical details and contexts in depth, perhaps through references to images or audio content; facilitated learning thanks to digital technologies that allow for quick explanations and in-depth insights that enrich understanding of the works, thus making education more accessible (especially for young people, perhaps precisely as a teaching aid: they can become valuable resources for schools, students, and enthusiasts, allowing remote guided tours), thus improving overall knowledge and general satisfaction; and reduced costs compared to physical visits, given the lack of travel to the museum. As for the benefits for museums, we can cite the increased visitor numbers thanks to the possibility of virtual visits (contrary to initial concerns, virtual tours stimulate web traffic and attract more in-person visits to museums); the preservation and protection of artworks thanks to their digitalization (this limits their physical display, protecting them from damage, wear, and vandalism); efficient cataloguing thanks to the implementation of digital technologies; new forms of engagement thanks to tools such as gamification and augmented reality, which are known to increase*



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*public engagement, making museums more attractive and innovative; and the possibility of showcasing rare or rarely exhibited artworks. Considerations that go beyond this categorization of advantages include the reduction in climate-altering gases resulting from the avoidance of travel by not having to physically reach the museum, and the fact that for many users, a physical visit remains unparalleled, maintaining that aura of charm that digital tools cannot offer. Some of the Italian museums that have adopted these technologies include the MAXXI Museum in Rome, the Capitoline Museums in Rome, the Vatican Museums, the Museo del Novecento in Milan, the Egyptian Museum in Turin, the Peggy Guggenheim Museum in Venice, which offers digital materials and virtual tours via social media, the MAMbo in Bologna, the Uffizi Galleries in Florence, the Galleria Nazionale dell'Umbria in Perugia, and the civic museums of Rome, which offer virtual tours of eight museums, including the Centrale Montemartini, Trajan's Market, and the Ara Pacis Museum. These virtual museums represent a great opportunity to explore and enhance Italy's cultural heritage from anywhere.*

**Originality:** *This work explores, within the Italian context, how virtual museums represent a new frontier in accessing culture, overcoming physical limitations and expanding the possibilities for enjoying artistic and historical heritage. This offers numerous advantages for both visitors and museum institutions, ultimately improving accessibility, preservation, and the cultural experience compared to traditional museums. This fits perfectly with the twin transition (green and digital) we are currently experiencing.*

**Keywords:** *virtual museums, digital innovation, heritage capitalization, augmented reality, virtual reality, digital tools.*



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## **REFORMING UKRAINE'S VOCATIONAL EDUCATION WITH REGARD TO PUBLIC-PRIVATE PARTNERSHIP AND POST-WAR RECOVERY**

**Tetiana Burlay**

*Institute for Economics and Forecasting of NAS of Ukraine, Kyiv, Ukraine*

*btv2008@ukr.net*

*ORCID ID: 0000-0003-4530-9151*

### **Abstract**

Ukraine, even before the war, integrating into the EU common educational space, began reforming the vocational education system, aimed at solving the problems of mismatching the skills of its graduates with the demands of employers, the imbalance of educational opportunities and labor market needs, and promoting a quality workforce. These problems were even more exacerbated under martial law in Ukraine, since due to the outflow of working-age Ukrainians abroad and mass military mobilization, a significant shortage of working-class professions began on the national labor market. This situation may become a strategic challenge for the post-war economic reconstruction of the country, which determines the study's relevance. It is expected that the reform of vocational education should contribute to the training of new workers with high professional training, with modern skills, including digital and programming skills, who will become a highly productive workforce for the (post-)war needs of the domestic labor market. For good reason, the adoption of the new Law of Ukraine "On Vocational Education" in 2025 was set as one of the benchmarks of the Implementation Plan of the Ukraine Facility Program in the field of human capital development. This Law was adopted by the Ukrainian Parliament on August 21, 2025 (No. 4574-IX) and entered into force on September 12, 2025.

**Objective:** This research aims to substantiate the potential socio-economic consequences of the implementation of the Law of Ukraine "On Vocational Education", particularly in light of supporting public-private partnerships, human capital accumulation, the country's post-war recovery, and fulfilling Ukraine's obligations as a candidate country for EU accession.

**Methods:** The research methodology is based on institutionalism approaches, human capital theory, and statistical methods. The research used data from the State Statistics Service of Ukraine (only for territories controlled by the Government), Eurostat, and other sources.

**Results:** According to an extended analysis of the Law of Ukraine "On Vocational Education", its implementation may bring both positive results and social challenges. The expected positive consequences include: (i) the introduction of a model of financial autonomy of vocational education institutions; (ii) the expansion of the institutional capacity of vocational colleges in providing formal and non-formal vocational education; (iii) the implementation of a new assessment system in independent qualification centers using vouchers; (iv) the creation of supervisory boards of employer representatives to coordinate training programs with labor market needs; (v) the functioning of centers of professional excellence as regional hubs for training, cooperation with business, and investment attraction. The last two points mentioned provide for the development of public-private partnerships in Ukraine. Potential negative consequences of the implementation of the new Law are associated with the following. The first point, the complexity of reform, due to the significant ramifications of the domestic vocational education system. At the beginning of the 2024–2025 academic year, 653 vocational education institutions operated in Ukraine, in which the educational process was carried out in 541 institutions, where 214.4 thousand students studied. The second point, the lack of sufficient financial support for the transformation of the vocational education system, which may slow down this important educational reform for a long time. Indeed, Article 62 of the Law stipulates that the financing of the vocational education system is carried out at the expense of: the state budget, in particular the educational subvention; local budgets; from other sources not prohibited by law. However, the draft Ukrainian State Budget for 2026, submitted to the Parliament by the Cabinet of Ministers of Ukraine (registration No. 14000 dated 09/15/2025), does not provide for either an increase in the educational subvention or separate budget items for vocational education reform. And the vast majority of local budgets have long been faced with the problem of a deficit in financing



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*vocational institutions, and this problem will become even more acute taking into account the average annual inflation included in the draft budget for 2026 (at the level of 10.4%). And although the Ministry of Education and Science emphasizes the phased implementation of reforms conditioned by the entry into force of the Law "On Vocational Education", the question of whether there will be funds in the state and local budgets for its implementation remains open, given the uncertainty of the timing of the end of the Russian-Ukrainian war and the multi-billion-dollar need for funds directly for the post-war recovery of Ukraine's economy. The third point, the norms of the new Law do not provide for a mechanism for the reorganization of the eighteen types of vocational education institutions currently existing to the seven new types provided for by the Law. This may lead to the dismissal of a significant number of teachers and other employees employed in the field of vocational education – today in Ukraine there are 28.6 thousand pedagogical employees involved in the educational process. Such an anti-social result is unacceptable.*

*The study focuses on the need to implement not accelerated reforms – even in connection with the state's obligations under the Ukraine Facility financing program – but rather reforms based on the principles of public-private partnership, balanced and institutionally high-quality reforms, covering such areas as education and employment that are crucial for the formation of Ukraine's human capital.*

**Originality:** *The originality of the study is manifested in the application of a three-vector analysis of the consequences of the current reform of vocational education – along the vector of strengthening the opportunistic interaction of the educational sector and the national labor market, along the vector of post-war reconstruction, and also along the vector of Ukraine's European integration.*

**Keywords:** *educational reforms, labor market, public-private partnership, military shocks, socio-economic consequences, post-war recovery, Ukraine Facility.*



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## **ANALYSIS OF ESG RISKS IMPACT INTO INTERNAL CONTROL SYSTEM OF BANKS**

**Ion Cara**

*PhD student, Academy of Economic Studies of Moldova, Republic of Moldova*

*Ion.cara3@gmail.com*

*ORCID ID: 0000-0001-8662-3900*

### **Abstract**

*In the context of global trends of increased attention to both financial and non-financial risks, integrating environmental, social and governance (ESG) principles into banks' internal control is becoming a current strategic priority. The major importance attached to these factors derives from the fact that they are an important element both in creating the image of entities, influencing investment decisions, stability, as well as they can have a negative impact on banks' risks and performance. Thus, ESG can no longer be considered just as a factor that affects the image, but as a multitude of elements that has a cross-cutting impact on both the traditional risks of banks and their business model.*

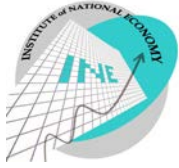
*The objective of the research is to analyze the impact of non-traditional ESG risks on banks' internal control systems and business processes and to identify the challenges related to their integration. At the same time, it is proposed to identify the tools of ESG transmission in the financial risks of banks and how to integrate these criteria in the model of the three lines of defence according to the model of the Committee of Sponsoring Organizations of the Treadway Commission. Thus, good practices related to the integration of ESG risks and the situation of related regulations in this context within the internal control system of the banking sector in the Republic of Moldova are studied. The research method includes literature review together with reports and other published information of banks and international financial organizations, relevant laws and regulations, especially European Union and national ones.*

*The research findings reveal the importance of creating a robust ESG-oriented internal control framework to ensure the long-term sustainability of banks. In addition, the research highlights that the integration of sustainability factors into internal control has become mandatory and European regulators are imposing requirements that ESG risks should be assessed in a similar way to any other material risk. Although there is no enforceable regulatory framework dedicated to the integration of these criteria, banks have started to create action plans towards financial resilience and sustainability, and best practices and requirements imposed by the European Banking Authority and the European Central Bank are seen as a benefit rather than a burden. At the same time, both banks and the National Bank of Moldova are recommended to implement appropriate measures that will allow the assessment of ESG risks and to develop effective internal control tools.*

*The originality of this study derives from the fact that being an emerging trend and a rapidly developing field, it is welcome to study in more depth the issue of integrating ESG risks into the banking control system of the Republic of Moldova. In addition, recommendations have been developed for bank management related to the impact of ESG risks on internal control systems, emphasizing both the benefits and challenges of integrating ESG risks into bank internal control.*

*In conclusion, the integration of ESG factors into banks' internal control frameworks is necessary but requires significant additional effort in the short term. By incorporating ESG risks into the internal control system, banks are demonstrating a positive impact on their business as well as on the stability and improvement of their financial results.*

**Keywords:** *ESG, sustainability, risk, internal control*



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## **AI AND ENGLISH MEDIATION FOR CULTURAL HERITAGE: ENHANCING ACCESSIBILITY IN THE GREEN AND DIGITAL TRANSITIONS**

**Laura Centonze**

Universitas Mercatorum, Rome, Italy  
laura.centonze1987@gmail.com

### **Abstract**

*The aim of the present paper is to gain insights into the interplay between artificial intelligence, English language mediation, and cultural heritage promotion in the context of the twin transition. While digital innovation and sustainability are reshaping heritage capitalization, accessibility remains largely dependent on effective linguistic and cultural adaptation (Cerquetti & Cutrini, 2023; Quattrini, Berrocal Menárguez, & Zamorano Martin, 2023). In this vein, the study highlights how AI-powered translation tools and English as a global lingua franca can enhance multilingual communication, reach wider audiences through digital platforms, and support the creation of inclusive heritage narratives (Chatzitheodorou et al., 2024; Cossatin et al., 2025). Moreover, recent scholarship has emphasized the role of younger generations and their digital practices in rethinking heritage communication (Pentescu, 2023), as well as the potential of adaptive reuse projects that balance energy transition and cultural preservation (Jiang et al., 2023; Casanovas, Alonso Campanero, & Campisi, 2024). By drawing on such interdisciplinary perspectives, the paper argues that technological, linguistic and cultural innovations are mutually reinforcing. Aligning AI-enhanced translation practices with green and digital strategies can therefore foster sustainable growth, global competitiveness, and broader accessibility in heritage capitalization.*



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## **THE ROLE OF CENTRAL BANKS AND THE GOAL OF A BALANCED GLOBAL TRANSITION**

**Aurora Cojocariu**

*Romanian Academy, School of Advanced Studies of The Romanian Academy, Doctoral School of Economic Sciences, National Institute for Economic Research "Costin C. Kiritescu", "Victor Slăvescu" Centre for Financial and Monetary Research, Bucharest, Romania  
aurora.cojocariu@bnro.ro*

### **Abstract**

*The paper examines the strategic role of central banks in supporting a balanced global transition towards economic sustainability and in managing climate risks. Building on the theoretical foundations of monetary policy and financial stability, it examines recent trends in the integration of climate objectives into central banks' institutional mandates and their impact on the macroprudential framework. The paper investigates the main intervention tools — such as portfolio targeting, adjusting collateral requirements and stimulating green lending — while also analyzing the challenges associated with international coordination and the constraints generated by political and economic divergences. It also discusses the implications for global governance, the credibility and effectiveness of net-zero objectives, highlighting the importance of collaboration between monetary, fiscal and private sector authorities. The paper highlights the interdependence between financial stability and the green transition in the current geopolitical and economic context.*

**Objective:** *The study explores the strategic role of central banks in promoting a balanced global transition towards economic sustainability and managing climate-related risks. In a context characterized by increased macroeconomic volatility and geopolitical uncertainty, central banks face the challenge of aligning monetary policy and financial stability objectives with the imperatives of the green transition. The paper aims to identify how monetary authorities can integrate climate considerations into their operational frameworks, while preserving their traditional mandates of price stability and systemic resilience.*

**Method:** *The research employs a mixed methodological approach, combining a theoretical-conceptual analysis of central banking frameworks with empirical evidence drawn from official documents, policy reports, and recent initiatives of institutions such as the European Central Bank (ECB), the Bank for International Settlements (BIS), and the Network for Greening the Financial System (NGFS). Through comparative examination, the paper evaluates the evolution of policy instruments — including climate stress testing, collateral frameworks, green quantitative easing, and prudential transition plans — to assess their effectiveness in mitigating environmental and financial risks.*

**Results:** *Findings indicate that central banks are gradually incorporating climate objectives into their policy frameworks through explicit adjustments to collateral eligibility, disclosure requirements, and risk management practices. The empirical evidence suggests that these measures have contributed to enhancing transparency and aligning financial incentives with sustainability goals, yet their implementation remains uneven across jurisdictions. The study finds that while the integration of climate criteria into monetary operations strengthens long-term financial stability, it also exposes central banks to political pressures and potential trade-offs between price stability and climate alignment. The analysis further reveals that effective coordination among monetary, fiscal, and supervisory authorities is essential to ensure a coherent transition path and to avoid policy fragmentation that could undermine global resilience.*

**Originality:** *The originality of this study lies in its multidimensional perspective on the role of central banks as key actors in the global sustainability transition. By combining institutional, economic, and governance dimensions, the paper offers an integrative assessment of how central banking practices are evolving in response to environmental imperatives. Unlike previous research that focused primarily on the environmental disclosure or risk assessment components, this study emphasizes the systemic implications of incorporating climate objectives into monetary policy design and governance. It contributes to the broader debate on redefining the scope and limits of central banks' mandates in the era of climate change, proposing that long-term financial stability and environmental sustainability should be treated as complementary, not competing, objectives.*



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**Keywords:** *central banks, monetary policy, financial stability, climate risks, sustainability, balanced global transition, net-zero, macroprudential policy, international coordination, governance*



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## **PROMOTING SUSTAINABLE DEVELOPMENT THROUGH DIGITALISATION OF CULTURAL HERITAGE**

**Andreea Constantinescu<sup>1\*</sup>, Victor Platon<sup>2</sup>, Simona Frone<sup>3</sup>, and Sorina Jurist<sup>4</sup>**

<sup>1,2,3,4</sup>Institute of National Economy, Romanian Academy, Bucharest, Romania  
andreeaconstantinescu7@gmail.com, victor.platon54@gmail.com, frone.simona@gmail.com,  
sorinaj2005@yahoo.com

ORCID ID: 0000-0002-8313-3639, 0000-0001-6757-711X, 0000-0002-9020-7069, 0009-0005-2666-2576

\*Corresponding author

### **Abstract**

*The study examines how digitalization promotes sustainable growth in the cultural sector, paying special emphasis to cultural heritage. One of the most obvious examples of sustainability's importance is cultural heritage, which actually faces the risk of progressive extinction, at least for the components where fragility might be definitive.*

**Objective:** *The purpose of the article is to define key elements, explain their roles and functions, and describe the types of European policies that may be used to support the digitalisation process of the cultural heritage with direct influence on sustainable development.*

**Methods:** *Two stages make up the exploratory research: the first, on-the-desk, phase examines the topic of digitalizing cultural heritage in national and international literature as a means of directing sustainable development. The administration and development of cultural heritage through online portals are examined in the second part.*

**Results:** *This research is distinguished by its provision of unique profiles, as the digitalization of cultural heritage represents an activity that now lacks significant systematization in the academic discourse in Europe.*

**Originality:** *This article contributes to the better knowledge and assessment of digitalization processes in Europe's cultural heritage sector. We think that some intriguing aspects that can help the cultural heritage sector use technology effectively may be brought to light by this research.*

**Keywords:** *heritage, European identity, local specifics, sustainable development*



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## **EU POLICIES AND TOOLS FOSTERING SUSTAINABLE DEVELOPMENT OF LOCAL HERITAGE**

**Andreea Constantinescu<sup>1\*</sup>, Simona Frone<sup>2</sup>, Victor Platon<sup>3</sup>, and Sorina Jurist<sup>4</sup>**

<sup>1,2,3,4</sup>Institute of National Economy, Romanian Academy, Bucharest, Romania

andreeaconstantinescu7@gmail.com, frone.simona@gmail.com, victor.platon54@gmail.com,

sorinaj2005@yahoo.com

ORCID ID: 0000-0001-6757-711X, 0000-0002-8313-3639, 0000-0002-9020-7069, 0009-0005-2666-2576

\*Corresponding author

### **Abstract**

*Policy documents from the European Union demonstrate the organization's dedication to cultural heritage by highlighting its significance as a resource for local communities and a shared European identity. Recognizing the inherent value of cultural heritage as a catalyst for social cohesion, economic prosperity, and environmental sustainability, the EU has thus put in place a number of policies and tools to support the sustainable development of local heritage. The diverse strategy is in line with more general EU goals, like the Sustainable Development Goals (SDGs) and the European Green Deal. The overall purpose of the project and policy measures is to ensure that heritage conservation supports sustainable development goals by integrating cultural and natural assets into larger socioeconomic frameworks.*

**Objective:** *The paper aims to identify the key elements, their roles and functions, and the types of European policies and/or tools that are or may be used to support and coordinate all of these elements towards a sustainable local development that is social, economic, and environmental. It does this by highlighting the active role of a number of actors and factors in the sustainable development of local heritage.*

**Methods:** *The techniques employed in this paper are standard ones for basic research, including: a review of the literature outlining prior findings and assertions on the subject; a review and analysis of recent publications from the European Union; official documents and strategies; conceptual clarification; data collection and curation on some significant issues regarding the sustainable development of the local heritage; a case study, including some from Romania; the comparative method; and information analysis and synthesis.*

**Results:** *The conceptual results—such as what sustainable development means in the context of cultural local heritage (including conservation and maintenance); the particular elements of heritage development and the nature or features of the policies addressing each of them (with pertinent examples); the primary obstacles posed by/for putting these policies and projects into action; and lessons learned and suggestions—are the most significant. Conversely, in the face of current social, political, and environmental issues, a more comprehensive approach is needed to guarantee that the cultural and natural legacy is a robust, vital, and dynamic aspect of the European character.*

**Originality:** *This study's unique goal is to examine and highlight, using a comprehensive and multidimensional methodology, as unique to sustainability studies, how cultural and natural heritage can effectively promote local and regional sustainable development.*

**Keywords:** *heritage, sustainable development, policies, European identity, local development*



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## PROMOTING NATIONAL RESORTS THROUGH INTELLIGENT RECOMMENDER SYSTEMS

**Alexandra Elena Drăghicescu<sup>1</sup>, Andreea-Denisa Trășcan<sup>2,\*</sup>, and Cristina Boboc<sup>3</sup>**

<sup>1</sup>Bucharest University of Economics, Romania; <sup>2</sup>Bucharest University of Economics, Romania / National Scientific Research Institute for Labour and Social Protection, Bucharest, Romania; <sup>3</sup>Bucharest University of Economics, Romania / Institute of National Economy, Romania

draghicescuaalexandra20@stud.ase.ro, trascaandreea20@stud.ase.ro, cristina.boboc@csie.ase.ro

ORCID ID: 0009-0005-7206-6476, ORCID ID: 0000-0002-7397-4821

\*Corresponding author

### Abstract

Romania's 54 nationally recognised resorts represent a diverse heritage resource, encompassing seaside, mountain, spa, and cultural destinations. Despite their potential, the effective promotion of these resorts remains constrained by fragmented information and limited personalisation in marketing strategies. **The main objective** of this research is to design an intelligent recommender system to connect travellers with destinations aligned to their profiles and preferences.

**Method:** The study integrates structured resort-level data with user-generated reviews, applying classification models (Random Forest, K-Nearest Neighbors, and Multi-Layer Perceptron) to predict the likelihood of recommending a destination. The results highlight the superior predictive performance of neural networks (Multi-Layer Perceptron model) in terms of accuracy, precision and logarithmic loss, in classifying tourist preferences and identifying the most suitable destinations based on factors such as seasonality, traveller type, and budget. Model performance was validated using a consistent, widely accepted protocol. Results have been compared across accuracy, precision, recall, ROC-AUC, log loss, and confusion matrices, ensuring both discriminative power and probability quality were assessed. Models were then ranked holistically and checked for stability across folds. The final selection followed a transparent, metric-driven procedure without privileging a single indicator, thus ensuring a robust and generalizable recommender. The most efficient model was embedded into a chatbot interface to provide interactive, customised guidance for tourists. The chatbot was designed to collect relevant information from the user in an intuitive manner through a sequence of questions about the desired season, available budget, preferred type of activity, number of nights, type of traveller, and other specific interests such as cultural or gastronomic preferences. This conversational interaction enables the chatbot to overcome the limitations of static search forms, providing a more nuanced understanding of individual requirements. The entire process is implemented in Python and integrates the conversational and predictive components in a coherent and reproducible manner.

**Results** show that personalised recommendations not only increase user satisfaction but also enhance the visibility of lesser-known resorts, contributing to regional development and heritage capitalization. By bridging cultural tourism with digital innovation, the proposed system offers a scalable solution for promoting Romania's tourism heritage in the context of sustainable and digital transformation. One key limitation of this study was the class imbalance in the dataset, which led to biased model performance and reduced accuracy for under-represented tourist destinations. Another challenge was the quality and completeness of data collected through web scraping from Booking.com, as user-generated reviews were often unstructured, inconsistent, and required extensive cleaning.

**The originality of this work** resides in employing the data mining techniques in the tourism sector. This methodology was highly effective for understanding tourist preferences, segmenting users, and generating personalized recommendations. By applying classification algorithms, and web scraping techniques, heterogeneous and unstructured data - such as online reviews were used as meaningful information for travel decision-making.

**Keywords:** heritage capitalization; national resorts; recommender system; Data Mining; machine learning; personalisation; chatbot; sustainable tourism



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## **DIGITAL TRANSFORMATION AND THE LABOUR MARKET: INNOVATIVE STRATEGIES AND PUBLIC-PRIVATE GOVERNANCE FRAMEWORKS**

**Monica Dutcas**

*Scientific Researcher, "Victor Slăvescu", Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania; PhD student, School of Advanced Studies of the Romanian Academy, Doctoral School of Economic Sciences, "Costin C. Kiritescu" National Institute of Economic Research*

*monica.dutcas@finders.ro*

*ORCID ID: 0000-0003-1326-6636*

### **Abstract**

*Digital transformation is reshaping the way organizations operate, manage resources, and interact with employees, customers, and institutions. Emerging technologies – such as artificial intelligence, blockchain, cloud computing, and IoT – are driving organizational changes, requiring adaptive management strategies and innovative business models. Digital technologies are not just operational tools, but catalysts for irreversible structural changes, with an impact on the global economy and all actors involved in value chains. In this context, it is essential to identify more clearly the role that digitalization plays in reshaping business models and in configuring public-private partnerships (PPPs), both as instruments of economic governance and as vehicles for innovation and sustainability.*

*The paper is structured around three major research directions. First, a conceptual clarification is made regarding the digital economy and related concepts, analysing the divergences between traditional approaches to the market economy and the emergence of digital ecosystems based on platforms, data and algorithms. The digital economy is becoming a reference framework for innovation, competitiveness and social inclusion, and understanding the fundamental definitions is necessary for the formulation of coherent public policies.*

*Second, the digital transformation is addressed at the organizational and managerial level. Traditional business models are facing increasing pressure to integrate emerging technologies – artificial intelligence, blockchain, cloud computing, Internet of Things – either through their own development or through innovative application in existing processes. This transformation requires change management strategies and involves redefining the relationship between companies, employees, customers and public institutions. At the same time, public-private partnerships are becoming an essential framework for the transfer of innovations to strategic sectors (education, health, infrastructure), contributing to sustainable development and reducing digital divides.*

*Third, the research pays special attention to the relationship between digital entrepreneurship and the labour market. The persistence of technological transformations generates a continuous demand for new technical and entrepreneurial skills. The question arises whether these skills will remain permanent in the labour market architecture or whether they will suffer from increased volatility with the acceleration of innovations. In this regard, the ways in which human capital can be prepared for the new economic realities are analysed, highlighting the importance of entrepreneurial education, youth support programs and fiscal policies aimed at stimulating innovation and employment.*

*Rapid technological advances are creating a continuous demand for technical and entrepreneurial skills, challenging traditional workforce structures. Education, training programmes and policy interventions are essential to build not only labour market resilience, but also anti-fragility, enabling workers and organisations to thrive in the midst of uncertainty and rapid change.*

*The paper presents the theoretical analysis of the concepts with reflections on European and Romanian practices regarding digital entrepreneurship and public-private partnership. Examples of youth programmes, financing mechanisms and the role of tax policy in reducing barriers to access to entrepreneurship highlight that the success of the digital transformation depends on the correlation between private initiative and public institutional support. Thus, business models based on digitalization cannot be separated from regulatory and taxation frameworks, and public-private partnerships become mechanisms for co-production of economic and social value.*



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*The overall conclusion underlines the need for integrated policies that combine technological development, digital entrepreneurship and public-private partnerships, with the aim of boosting economic competitiveness and labour market sustainability. In this context, the analysis of new business models must be accompanied by a strategic framework that ensures not only economic growth, but also social inclusion and resilience in the face of the multiple crises that define contemporaneity.*

*The originality of the work lies in the convergence between digitalization, organizations and PPP, with effects on entrepreneurship and human capital, offering an integrated framework of theoretical and practical analysis, rarely found in the specialized literature.*

**Keywords:** *digital economy, business models, digital entrepreneurship, public-private partnership, labour market*



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## **DIGITAL TOOLS FOR SAFEGUARDING AND PROMOTING CULTURAL HERITAGE: A CASE STUDY OF UNESCO WORLD HERITAGE SITES IN ROMANIA**

**Ionela Gavrilă-Paven**

*"1 Decembrie 1918" University of Alba Iulia, Alba Iulia, Romania*

*ionela.gavrila@uab.ro*

### **Abstract**

**Objective:** Cultural heritage in the 21<sup>st</sup> century is no longer confined to physical monuments and archival repositories; it has become a dynamic and evolving construct deeply intertwined with technological innovation, digital communication, and participatory engagement. In Europe, digital heritage has emerged as a strategic priority, especially within the frameworks promoted by UNESCO and the European Commission, which underscore the importance of accessibility, sustainability, and community involvement. Romania, as custodian of several inscribed UNESCO World Heritage Sites—such as the Painted Churches of Northern Moldavia, the Historic Centre of Sighișoara, and the Dacian Fortresses of the Orăștie Mountains – provides a pertinent case for examining the integration of digital tools within heritage management.

The objective of this study is to analyse the extent to which digitalisation contributes to the capitalisation of Romanian cultural heritage, reinforcing identity, enhancing public awareness, and ensuring long-term protection. The study aims to assess the digital strategies employed by selected UNESCO sites and evaluate how these strategies support wider heritage development goals, particularly in relation to innovation, educational outreach, and tourism sustainability.

**Method:** This research employs a qualitative-descriptive methodology, complemented by selected quantitative indicators. The analysis focuses on three UNESCO World Heritage Sites in Romania that represent diverse typologies and management contexts. Data were collected from official institutional platforms, including the UNESCO World Heritage Centre, the Romanian Ministry of Culture, and the National Institute of Heritage (INP), as well as from publicly accessible websites, virtual tours, and social media channels.

The examination involved three key analytical techniques:

- **Content Analysis:** evaluating the presence, depth, and quality of digital content such as virtual tours, interactive archives, digital storytelling, and educational resources;
- **Comparative Analysis:** measuring differences in digital implementation between sites by assessing visibility, accessibility, and engagement across platforms;
- **Indicator-Based Assessment:** employing basic metrics including website traffic (where available), social media engagement (followers, interaction rates), and availability of digital educational or promotional materials.

The methodology also considered alignment with international policy frameworks on digital heritage, including UNESCO's recommendations and EU digital transformation agendas.

**Results:** The analysis reveals significant disparities in the adoption and integration of digital tools across Romanian UNESCO sites. While certain locations, particularly the Painted Churches and Sighișoara, demonstrate increasing engagement through official websites, photographic archives, and social media promotion, others—such as the Dacian Fortresses—show limited or fragmented digital presence.

Key findings include:

- (1) **Enhanced Visibility through Digital Media:** sites with active digital platforms recorded higher public engagement and visibility in international cultural networks;
- (2) **Partial Implementation of Educational Tools:** although virtual exhibitions and digital brochures are available for some sites, comprehensive online educational programs remain scarce;
- (3) **Inconsistent Strategic Coordination:** there is no unified national digital heritage platform, resulting in uneven representation and missed opportunities for integrated promotion;



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(4) *Risk Management and Security Potential: digital documentation and online archiving offer significant benefits for risk mitigation, especially in the context of environmental degradation or limited physical access.*

*Overall, the study confirms that digitalisation plays an essential role in enhancing public awareness and identity reinforcement, but it requires strategic coherence, institutional support, and sustained investment to reach its full potential.*

**Originality:** *This research contributes a novel perspective to the discourse on digital heritage by situating Romanian UNESCO sites within a comparative analytical framework and linking their digital presence explicitly to the HERITAGE–IIDEAS thematic axes: identity, innovation, digitalisation, environment, awareness, and security. Unlike existing studies that address heritage promotion in general terms, this article introduces a structured set of indicators to evaluate digital heritage performance, thereby offering a replicable model for assessing digital practices in other cultural contexts.*

*The study's originality also lies in its emphasis on the intersection between cultural policy and technological innovation, advocating for a national strategy that unifies digital heritage initiatives under a coherent framework. By demonstrating how digital platforms can serve not only as promotional tools but as instruments of education, community participation, and resilience, the paper presents digital heritage as a transformative force within contemporary cultural management.*

*Furthermore, it identifies practical solutions, including the creation of an integrated online portal for Romanian UNESCO heritage, the development of participatory digital narratives, and the adoption of immersive technologies such as virtual and augmented reality to revitalise public engagement. In doing so, the study positions digitalisation not as an accessory, but as a vital component of heritage capitalisation, capable of reshaping identity, accessibility, and sustainability in the cultural sector.*

**Keywords:** *digital heritage; UNESCO World Heritage Sites; cultural identity and awareness; heritage innovation and sustainability; heritage digitalisation strategies*



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## **TAXATION FOR HERITAGE CAPITALISATION IN THE TWIN TRANSITION: INCENTIVES, PPP MODELS AND SAFEGUARDS**

**Filippo Luigi Giambrone**

University of Sannio, Department of Law, Benevento, Italy

[filippo.giambrone@unisannio.it](mailto:filippo.giambrone@unisannio.it)

ORCID ID: 0000-0003-0986-4641

### **Abstract**

**Objective:** This paper explores how contemporary tax law can strategically enable the capitalisation of cultural heritage—tangible and intangible—within the broader ‘twin transition’ (green and digital). The objective is twofold: first, to identify coherent fiscal instruments (tax credits, deductions, accelerated depreciation, VAT relief, earmarked levies) that align with cultural-policy goals and sustainability metrics; second, to propose a safeguards framework that limits distortions (crowding-out, windfall gains, base erosion) and ensures compliance with EU State aid and procurement constraints when public–private partnerships (PPPs) are deployed for heritage conservation, digitisation and audience development.

**Method:** The study adopts a mixed doctrinal–empirical approach. Legally, it maps EU and national tax instruments affecting heritage capitalisation and cross-references them with competition-law limits (State aid) and PPP procurement rules. Comparatively, it analyses Italian and EU practice and draws targeted examples from selected Member States to illustrate design choices for digital and green heritage projects (e.g., virtual museums, energy retrofits of historical buildings, digital preservation workflows). Empirically, it develops a two-layer model: (i) an Incentive–Objective Matrix that aligns fiscal tools with policy objectives and quantifiable outputs; and (ii) a Safeguards Scorecard that assesses risks of abuse and measures proportionality (including fiscal-cost estimation, additionality tests, and anti-avoidance triggers).

**Results:** Three results emerge. First, a taxonomy of fiscally efficient instruments that prioritise measurable outputs (access, conservation status, carbon footprint, digital accessibility) over inputs, thus enabling performance-based tax reliefs for heritage projects. Second, a PPP design blueprint that combines tax expenditures with milestone-linked payments, reducing the ex-ante informational asymmetry and the risk of oversubsidisation, while remaining compatible with State aid ceilings and procurement transparency. Third, an operational Safeguards Scorecard specifying proportionality and targeting tests (beneficial ownership checks for relief claimants; limits to income shifting; anti-fragmentation; and sunset clauses), which curbs arbitrage without undermining investment incentives. The model is illustrated with worked examples and simulation scenarios to show fiscal-neutral or fiscally-contained pathways to heritage digitisation and green retrofits.

**Originality:** The paper links, in a unified framework, tax-law design, PPP governance and heritage-management outcomes, offering concrete checklists that cultural institutions and policymakers can adopt ex ante. It advances beyond conventional discussions of ‘tax incentives for culture’ by proposing measurable performance indicators, compatibility tests with State aid and procurement rules, and a scalable toolkit for digital and green heritage projects. The approach is actionable for both policymakers and practitioners and is adaptable across jurisdictions, making it relevant for the conference’s focus on innovation and sustainable development.

**Keywords:** cultural heritage, taxation, tax incentives, public–private partnerships, State aid, digitalisation, green transition, performance-based reliefs, proportionality, governance



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## **THE DUAL-PURPOSE DIGITAL TWIN: LEVERAGING VIRTUAL MODELS FOR SUSTAINABLE HERITAGE MANAGEMENT AND REDUCED ENVIRONMENTAL FOOTPRINT**

**Md. Kawsar<sup>1</sup>, Salma Akter<sup>2</sup>, and Farhana Foysal Satata<sup>3</sup>**

<sup>1,2</sup>Business Administration Department, East West University, Dhaka, Bangladesh; <sup>3</sup>Department of Management, University of Dhaka, Dhaka, Bangladesh

md.kawsar@ewubd.edu; drsalma@ewubd.edu; farhanafoysal-25th-2018420247@mgt.du.ac.bd

ORCID ID: 0009-0005-9377-6813, 0000-0003-0109-6457, 0009-0005-6884-8467

### **Abstract**

*Context for the Study:* A transformative approach is represented by the dual-purpose digital twin in the heritage management sector in the context of environmental sustainability. As the globe is continuously striving to combat global warming, a high percentage of energy resource consumption is reflected through employing traditional methods for the preservation of ancestral heritage which is a part of our cultural traditions and legacy for each and every country. According to a study reported in the *Journal of Heritage Tourism*, approximately 40% of worldwide energy consumption is attributed to the heritage sector, and the degree of carbon footprint continuously rises annually. Additionally, it has become a major concern worldwide. In 2023, the World Travel and Tourism Council (WTTC) stated in their study that the heritage sector was accountable for greenhouse gas emissions which is approximately 6.5%, while it is giving the ray of hope, as emissions have slightly decreased from 7.8% in 2019. However, these insights indicate progress and highlight the necessity for sustainable practices in the promotion and proper management of preservation policies for cultural monuments.

**Objective:** The ongoing twin transition, which synergistically integrates digital and green transformations, presents a critical paradigm shift in the cultural heritage sector. While digital tools are often utilised for public engagement, their potential to directly advance environmental sustainability goals remains significantly underexplored. The key objective of this study is to move beyond mere digital replication and propose a framework for developing "dual-purpose" digital twins. These models are designed not only for visualisation and virtual access but also to optimise resource efficiency, minimise environmental impact, and serve as a core instrument for sustainable heritage capitalisation.

**Methodology:** This study employs qualitative research based on secondary sources related to sustainable heritage management resources available on websites, portals, magazines, newspapers, and others. It synthesises the current best practices in sustainable heritage management, digital twin technology, and environmental monitoring. The proposed methodology involves integrating IoT sensor data (e.g. temperature, humidity, and structural stress) into a dynamic digital twin. This model was then utilised for simulations, including energy consumption analysis for climate control systems within historical buildings and predictive maintenance scheduling to prevent costly, resource-intensive repairs.

**Results:** The study results in a novel, actionable framework that outlines how a dual-purpose digital twin can be operationalised. The main findings demonstrate that such an approach can lead to a measurable reduction in the environmental footprint of heritage management through (1) optimised energy use for preservation climates, (2) proactive conservation interventions that reduce material waste, and (3) the promotion of high-fidelity virtual tours as a low-carbon alternative to physical tourism, thereby mitigating over tourism. This creates a direct link between digital innovation and green results.

**Originality/Value:** This study breaks new ground by repositioning digital twins as strategic instruments for sustainability in the heritage sector. Unlike prior studies that focused primarily on visualisation or structural monitoring, this study introduces an integrated model in which digital twins serve as analytical hubs linking conservation science with sustainable management and low-impact tourism.

**Practical Implications:** This study provides heritage institutions and site managers with a strategic framework to operationalise the twin transition. By adopting a dual-purpose digital twin model, organisations can achieve significant operational efficiencies, such as reduced energy costs for climate control and minimised spending on



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*emergency repairs through predictive maintenance. Furthermore, the ability to offer high-fidelity virtual tours creates new revenue streams, helping to fund conservation efforts while mitigating the physical impact of over-tourism. The framework directly supports strategic goals by enhancing environmental performance, ensuring long-term structural preservation, and broadening public access to the site. This enables policymakers and heritage managers to align their activities with key sustainable development goals, particularly SDG 11 (Sustainable Cities and Communities) by making cultural heritage more resilient and accessible, and SDG 12 (Responsible Consumption and Production) through optimised resource use. Ultimately, this study offers an actionable pathway for the cultural sector to build economically sustainable and environmentally sound management models for the future.*

**Keywords:** digital twin; sustainable heritage; green transition; predictive maintenance; energy efficiency; heritage capitalization; virtual tourism



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## **THE ROLE OF ENTREPRENEURIAL INNOVATION IN TOURISM INDUSTRY AT HERITAGE PLACES OF IRAQ; EVIDENCE FROM ERBIL CITADEL**

***Diyar Mustafa Khoshnaw***

*University of Kurdistan, Hawler-UKH, Erbil, Iraq  
diyarmustafakh@gmail.com*

### ***Abstract***

*This research study aims to examine the levels of entrepreneurial innovation within heritage sites in Iraq's tourism industry, using the Erbil Citadel as a primary case study. Focusing on the staff of this heritage site, the study investigates the relationship between EI and tourism development.*

*A descriptive-analytical approach was employed to analyse main variables, as well as the study investigates the relationship correlation and impact relationship. Moreover, the study population consisted of (145) employees from the Erbil Citadel, with scientifically selected sample used for data collection.*

*The findings revealed significant correlations and regression results between the variables, following a reliability assessment of the measurement scale. The participants of the survey were categorized based on demographic criteria from the questionnaire. Furthermore, the study concludes with recommendations for leadership to actively explore new opportunities within heritage locations, as doing so can enhance the competitive advantage expansion of such sites.*

*Ultimately, fostering innovation in these areas can significantly contribute to the growth of heritage tourism in Iraq.*

***Keywords:*** *entrepreneurial innovation; heritage place; Erbil Citadel*



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## **INNOVATIVE FINANCIAL INSTRUMENTS SUPPORTING ACCESSIBILITY, ADAPTIVE MANAGEMENT, AND SUSTAINABLE DEVELOPMENT**

*Otilia Manta*

*Romanian Academy, "Victor Slăvescu" Center for Financial and Monetary Research, Bucharest, Romania,  
Romanian Academy, Mountain Economy Centre CE-MONT Vatra Dornei, Romania, Romanian-American  
University, Bucharest, Romania*

*otilia.manta@icfm.ro*

*ORCID ID: 0000-0002-9411-7925*

### **Abstract**

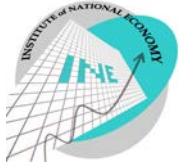
**Objective:** *The valorisation of cultural heritage requires innovative approaches that combine digitalisation, financial innovation, and adaptive management. In this context, Artificial Intelligence (AI) and Financial Technology (FinTech) emerge as transformative tools for increasing accessibility, enhancing user experience, and creating sustainable financing pathways. The objective of this study is to explore how AI-driven solutions and FinTech-based innovative financial instruments, such as digital tokens, blockchain-enabled microfinance, and crowdfunding platforms, can support the capitalisation of heritage assets. By focusing on accessibility, adaptive management, and sustainable development, the paper seeks to advance a holistic framework for heritage valorisation in the era of digital transformation.*

**Method:** *The research employs a mixed-method approach combining qualitative and quantitative techniques. First, a literature review on AI and FinTech applications in cultural and creative industries was conducted to identify emerging trends and knowledge gaps. Second, comparative case studies of international heritage-related projects employing AI-driven digitalisation and FinTech solutions were analysed. Third, a conceptual model was developed to integrate innovative financial instruments into heritage management strategies, with emphasis on accessibility, inclusiveness, and long-term sustainability. Additionally, scenario-building and SWOT analysis were employed to evaluate risks and opportunities associated with these instruments.*

**Results:** *The findings highlight that AI enhances the interpretation, preservation, and accessibility of heritage through automated digitisation, personalised visitor experiences, and predictive management tools. Simultaneously, FinTech solutions, including blockchain-based smart contracts, heritage tokens, and peer-to-peer lending models, expand funding opportunities and foster participatory financial ecosystems. The integrated model developed within the study demonstrates that combining AI and FinTech contributes to: (1) widening access to heritage products and services for diverse audiences; (2) fostering inclusive participation through community-based financial mechanisms; (3) improving resilience and adaptability of heritage management; and (4) ensuring long-term financial sustainability of heritage projects. These results underline the necessity of cross-sectoral collaboration between cultural institutions, technology providers, and financial actors.*

**Originality:** *The originality of the study lies in its interdisciplinary perspective, which bridges the fields of cultural heritage management, financial innovation, and digital technologies. Unlike previous research that addressed AI and FinTech separately, this paper proposes an integrated framework where both dimensions converge to capitalise heritage assets. The study advances the debate by positioning innovative financial instruments not only as funding mechanisms, but also as enablers of accessibility, inclusivity, and adaptive governance. By doing so, it introduces a novel conceptual model for heritage capitalisation that aligns with contemporary imperatives of digitalisation, environmental sustainability, and social awareness.*

**Keywords:** *heritage capitalisation, artificial intelligence, FinTech, innovative financial instruments, accessibility, adaptive management, sustainable development, digitalisation*



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## **STATISTICAL MODELLING AS A FUNCTIONAL HERITAGE INSTRUMENT FOR ECONOMIC DEVELOPMENT: A PREDICTIVE FRAMEWORK FOR KEY SECTORS IN ALBANIA**

**Xhuljeta Meçaj**

*"Aleksandër Moisiu" University, Durrës, Albania*

*xhuljeta.mecaj@uamd.edu.al*

*ORCID: 0009-0006-8372-0274*

### **Abstract**

**Objective:** *In an era where knowledge transmission and data-driven governance shape the foundations of sustainable development, the preservation of functional heritage becomes a multidimensional task. This study positions statistical modelling as a vital instrument of functional heritage—serving both as a methodological legacy and a tool for economic foresight. The paper focuses on forecasting sector-specific economic trends in Albania, including tourism, professional education, and banking, to demonstrate how statistical literacy contributes to informed decision-making and intergenerational capacity building.*

**Method:** *The methodology integrates quantitative data analysis using time series models such as ARIMA and Vector Autoregression (VAR). These models are applied to national data from INSTAT, Bank of Albania, and international datasets from the World Bank. Key indicators include non-performing loan (NPL) ratios, tourism employment rates, and vocational education enrolment. Unit root tests (ADF), co-integration analysis (Johansen), and autocorrelation diagnostics (Ljung–Box) ensure model robustness and reliability. The statistical workflow is implemented in R and Python to enable reproducibility and scalability for future institutional use.*

**Results:** *The analysis reveals critical linkages between educational enrolment patterns and financial system stability. Specifically, regions with increased vocational education participation show relatively lower NPL ratios over time, suggesting a workforce better equipped to manage financial obligations. The tourism sector, while vulnerable to exogenous shocks such as the COVID-19 pandemic, exhibits high adaptive capacity, particularly when underpinned by consistent investment in data-informed policy. The models also underscore the predictive strength of historical economic signals and confirm the value of statistical foresight for resilience planning.*

**Originality:** *This paper contributes to the conceptualization of 'statistical heritage'—the body of empirical, transferable, and actionable knowledge rooted in applied data science—as a vital dimension of functional heritage. It reframes statistics not merely as a discipline but as a heritage-based infrastructure supporting sustainable governance and economic adaptability. The proposed predictive framework can be localized across various Albanian regions or scaled to other developing economies sharing transitional characteristics. In linking data literacy with sectoral resilience, this work offers a novel bridge between scientific tradition and practical socio-economic development policies. Furthermore, this research emphasizes the role of academic institutions in institutionalizing statistical heritage through curriculum development and inter-sectoral collaboration. Universities and vocational schools, particularly in transitional economies like Albania, have a responsibility to embed statistical reasoning into their programs, fostering not only analytical competencies but also cultivating civic engagement and data-informed citizenship. As governments across the Balkans shift toward digitized public administration, the integration of predictive statistical methods becomes essential to anticipating social needs, evaluating policy outcomes, and guiding equitable investment strategies.*

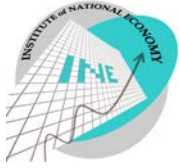
*The findings also suggest the potential for cross-sector replication of the model developed. For example, in agriculture and environmental monitoring, seasonal time series data can inform decision-making related to climate resilience and food security. In health economics, forecasting healthcare demands using historical data can lead to better resource allocation and patient outcomes. Such extensions illustrate the universal value of cultivating statistical thinking as a pillar of national competence. By situating statistical modelling within the broader framework of heritage studies, this paper challenges the conventional separation between scientific inquiry and cultural continuity. It argues that in the context of global uncertainty, statistical foresight is not only a technical exercise but also a form of legacy—a transferable cultural asset that shapes how societies understand risk, change, and opportunity.*



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*Ultimately, the research calls for a renewed commitment to investing in statistical education and infrastructure as means of preserving a functional heritage that is both dynamic and development-oriented.*

**Keywords:** *functional heritage; statistical modelling; time series; vocational education; Albania*



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## **AUTONOMOUS AI AGENTS IN BUSINESS INTELLIGENCE: CAN THEY REPLACE ANALYSTS IN ROUTINE TASKS?**

**Bogdan Mirea<sup>1\*</sup>, and Giani-Ionel Gradinaru<sup>2</sup>**

<sup>1</sup>Bucharest University of Economic Studies, Bucharest, Romania; <sup>2</sup>Bucharest University of Economic Studies, Bucharest, Romania / Institute of National Economy-Romanian Academy, Bucharest, Romania

mireabogdan17@stud.ase.ro, gianigradinaru@gmail.com

ORCID ID: 0009-0001-6839-059X, 0000-0003-3336-1737

\*Corresponding author

### **Abstract**

*The swift development of diverse large language models (LLMs) offered a potential for emergence of autonomous AI agents that can perform analytics operations and procedures once attributed to human experts. The research explores whether this type of agent can effectively handle or even enhance routine Business Intelligence functions, particularly in fields such as data analytics, trend spotting and calculating key performance indicators.*

*We built a Python based Business Intelligence agent leveraging the LangChain framework and supported by locally managed language models using Ollama. The agent was designed to understand questions in natural language format, choose the right analytical tools and generate valuable interpretations on its own. To evaluate its performance, we tested it on a realistic business dataset containing sales and marketing information then compared its results against traditional manual analysis. We looked at three key dimensions, how accurate it was, how efficiently it worked and how independently it could operate.*

*Our findings reveal that the agent handles straightforward analytical queries reasonably well with little human oversight. However, it struggles with more nuanced reasoning and interpreting context, limitations that highlight an important reality, in the context of routine BI tasks, AI agents function best as complementary tools to human analysts rather than as complete replacements.*

*This study provides a practical, hands-on look at integrating locally built and operated AI agents into the field of business analytics, using an open-source approach with general available resources. By basing our research on real experimentation considering the broader ethical and operational implications, we add to the ongoing and growing conversation about AI autonomy, democratized access to AI tools, and how humans and machines can work together more effectively in data-driven decision-making.*

**Keywords:** Autonomous AI agents; Business Intelligence; LangChain; Ollama; KPI analysis



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## **THE TRANSFORMATION OF THE BUSINESS ENVIRONMENT IN ROMANIA UNDER THE IMPACT OF EMERGING TECHNOLOGIES: AN ANALYSIS OF OPPORTUNITIES AND CONSTRAINTS**

**Florentina-Ştefania Neagu**

*Institute of National Economy, Romanian Academy, Bucharest, Romania*  
stefanianeagu15@yahoo.com  
ORCID ID: 0000-0003-4823-5848

### **Abstract**

*The rapid advancement of emerging technologies has profoundly reshaped global business ecosystems, and Romania is no exception. In a context marked by economic transition, globalization, and digital integration, the Romanian business environment faces both significant opportunities and complex constraints. This article explores how technologies such as artificial intelligence, blockchain, big data, and green innovations are driving transformation in Romania's business sector, while also posing challenges related to regulation, infrastructure, and workforce readiness.*

**Objective:** *The study aims to analyze the dual impact of emerging technologies on the Romanian business environment. It seeks to identify the main opportunities created by technological adoption such as enhanced competitiveness, improved efficiency, and access to global markets while also underlining the key constraints, including digital skills gaps, policy inconsistencies, and limited access to financing for innovation.*

**Method:** *The article employs a mixed method approach, combining qualitative analysis of policy documents, strategic reports, and academic literature with comparative evaluation of business indicators in Romania and other EU member states. Desk research was complemented by secondary data analysis from European statistical sources, providing a robust framework for understanding Romania's position in the broader European innovation landscape.*

**Results:** *The findings reveal that emerging technologies offer Romania notable growth opportunities, particularly in sectors like agriculture, manufacturing, and services. However, structural constraints such as insufficient digital infrastructure, uneven regional development, and underinvestment in research and development hinder the full realization of these opportunities. The study highlights that targeted policy measures and coordinated public-private partnerships are essential to bridging these gaps.*

**Originality:** *This article contributes to the literature by offering a holistic perspective that integrates both the opportunities and constraints of technological transformation in Romania. Unlike prior studies that focus narrowly on single sectors or technologies, this work provides a comprehensive analysis, positioning Romania's business environment within the dual framework of vulnerability and potential for sustainable innovation.*

**Keywords:** *Business transformation, emerging technologies, innovation and competitiveness, opportunities and constraints.*



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## **INTERPRETATION PLANNING AS AN ELEMENT OF THE STRATEGY FOR TOURISM DEVELOPMENT AT THE MUNICIPAL LEVEL IN BULGARIA**

**Eleonora Negulova**

*Department of Tourism, Faculty of Economics, South-West University "Neofit Rilski", Bulgaria  
negulova@abv.bg, negulova@swu.bg  
ORCID: 0000-0002-9615-0868*

### **Abstract**

**Objective:** *The paper explores interpretation planning as a strategic instrument for heritage capitalization at the municipal level in Bulgaria. While Bulgarian municipalities possess abundant cultural and natural assets, their strategic documents prioritize infrastructure and promotion over interpretive approaches. This deficit undermines differentiation, weakens tourism's educational and value-oriented role, and reduces its economic contribution to sustainable local development. The study's objective is twofold: (i) to diagnose the systemic absence of interpretation as a methodological standard in municipal tourism planning; and (ii) to propose a Strategic Interpretation Planning (SIP) model that operationalizes heritage interpretation as a driver of competitiveness, community participation, and resilience in the context of the European Green Deal and Digital Transition.*

**Method:** *The research adopts a qualitative, exploratory design focused on underdeveloped managerial tools. It combines five methodological pillars:*

1. *Documentary analysis of Bulgarian strategic texts (Tourism Act; National Strategy for Sustainable Tourism Development 2014–2030; Plan for the Development of Cultural Tourism 2020–2025; municipal strategies).*
2. *Case studies of two municipalities – Radomir and Berkovitsa – which combine strong heritage potential with weak interpretive planning.*
3. *Stakeholder consultations (focus groups, interviews, public hearings) that provided insights into perceptions and barriers.*
4. *Field observations of interpretive media (signage, exhibitions, guiding, digital tools) in Berkovitsa.*
5. *Autoethnography, reflecting the author's dual role as heritage interpreter and practitioner in municipal planning.*

*Reliability was enhanced through triangulation, thick description, and alignment with international standards (UNESCO WHIPIC, Interpret Europe, US National Park Service).*

**Results:** *The findings confirm a structural interpretive vacuum in Bulgarian municipal tourism governance. Strategic documents emphasize infrastructure and quantitative indicators (tourist numbers, overnight stays), while neglecting interpretive goals, thematic frameworks, and performance metrics.*

- *In Radomir, strategies include generic promotion but no interpretive objectives or narratives.*
- *In Berkovitsa, abundant cultural and natural assets remain underutilized, with interpretation reduced to fragmented signage and absent digital layers.*

*This omission leads to weak destination identity, low differentiation, and lost opportunities for economic capitalization of heritage resources.*

*To address these gaps, the paper proposes the SIP model, consisting of:*

- *a VRIN-based inventory of heritage resources (valuable, rare, inimitable, non-substitutable);*
- *a shared narrative framework co-created with stakeholders;*
- *a portfolio of interpretive media (live, physical, digital) designed for outcomes;*
- *4E indicators (Education, Experience, Engagement, Empathy) for monitoring visitor impacts;*
- *enhanced roles for municipal tourism councils as narrative and evaluation hubs.*



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**Originality:** *This paper represents the first systematic account of interpretive omission in Bulgarian tourism strategies and demonstrates its economic consequences: reduced competitiveness, missed opportunities for extended stays, and underutilization of intangible assets. The originality lies in adapting international interpretation models (Tilden, Ham, Moscardo) into a strategic planning cycle that bridges heritage management with sustainable local development.*

*The proposed SIP model is both theoretical and practical:*

- *Theoretically, it positions interpretation as the semantic backbone of destination management, aligning heritage narratives with twin transition policies (green and digital).*
- *Empirically, it offers municipalities a replicable toolkit for heritage-based economic development, measurable through 4E outcomes and adaptable to diverse local contexts.*

*By integrating interpretation into strategic documents, municipalities can capitalize on heritage assets not only culturally but also economically—transforming resources into competitive advantages, enhancing community identity, and ensuring accountability in public investment.*

**Keywords:** *interpretation planning; heritage capitalization; sustainable development; municipal tourism strategies; community participation; economic impact; twin transition; Bulgaria*



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## **SMART SPECIALIZATION AT THE REGIONAL LEVEL: FROM MAPPING REGIONAL POTENTIAL TO BUILDING INNOVATION ECOSYSTEMS**

*Diana Russu<sup>1\*</sup>, and Larisa Savga<sup>2</sup>*

<sup>1</sup>Doctoral School of the State University of Moldova, Chisinau, Republic of Moldova; <sup>2</sup>Trade C-operative University of Moldova, Chisinau, Republic of Moldova / "Dunărea de Jos" University of Galați, Galați, Romania

russudianaboris@gmail.com; savga.larisa@gmail.com

ORCID ID: 0009-0003-3180-8977, 0000-0002-9691-7475

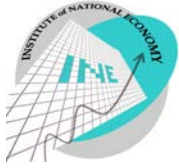
\* Corresponding author

### **Abstract**

**Objective:** Smart specialization represents a key framework for fostering innovation-driven and sustainable economic growth in the Republic of Moldova. By identifying and leveraging sectors with the highest potential for competitiveness, it enables a more efficient allocation of public and private resources toward areas that generate high added value. In the context of European integration and the transition to a knowledge-based economy, smart specialization supports the strengthening of research, innovation, and digitalization capacities, while enhancing collaboration between academia, industry, and government. Consequently, it serves as a strategic pillar for regional development and the modernization of Moldova's economy. The main objective is to demonstrate how evidence-based prioritization and participatory dialogue contribute to building sustainable regional capacities aligned with the National Program on Smart Specialisation "Smart Moldova" for 2024-2027 and the broader goals of EU cohesion policy. This paper investigates how Smart Specialization Strategies (S3) are designed and implemented at the regional level in the Republic of Moldova, illustrating the progression from analytical mapping of economic and innovation potential toward the development of functional regional innovation ecosystems. Drawing on the European Commission's Joint Research Centre (JRC) methodology, the study analyses the experiences of the Development Regions of South and Autonomous Territorial Unit (ATU) Gagauzia, where the process of identifying regional strengths and opportunities has evolved into a platform for collaborative governance and innovation-led growth.

**Method:** The research is based on a two-stage methodological approach, consistent with the European Commission's Joint Research Centre (JRC) framework for regional smart specialization. The first stage involved the mapping of economic, scientific, and innovation potential through quantitative analysis of statistical indicators at the three-digit REV-2 CAEM level. This included data on turnover, employment, innovation activity, patents, and publications or research output, which together provided a detailed picture of regional strengths and capacities. The analysis allowed for the identification of both current specializations where regions already demonstrate competitive advantages and emerging domains with potential for innovation-driven diversification. Complementarily, the qualitative validation through the Entrepreneurial Discovery Process (EDP), engaging representatives of the private sector, academia, public authorities, and development institutions. Through interviews, focus groups, and participatory workshops, regional actors discussed the findings of the mapping, identified value chains, and validated niches with potential for smart specialization. This participatory process ensured that the quantitative evidence was grounded in local knowledge and reflected the real economic and innovation dynamics of each region as well as the aspirations of local stakeholders.

**Results:** The mapping and EDP validation revealed that, although geographically close, the two regions are evolving along distinct specialization paths. In ATU Gagauzia, specialization is oriented toward bio-innovative technologies for pharmaceuticals, cosmetics, and personal care products, alongside the textile and apparel industry (TAFL), both sectors reflecting accumulated know-how and existing production capacities. In contrast, the South Region shows higher concentration and growth potential in the construction materials industry and experience-based industries, including traditional crafts and locally rooted production. In both cases, the agri-food value chain remains a structural pillar of the regional economy, offering opportunities for modernization through innovation, digital tools, and sustainable practices.



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*These findings confirm that regional smart specialization is not a uniform process but one shaped by each territory's specific assets and socio-economic context. The differentiated outcomes between the South and Gagauzia regions highlight the importance of the S3 approach as a policy instrument that values diversity, supports place-based innovation, and promotes complementary regional trajectories within a coherent national framework. The research also highlights the potential strategic role of Regional Development Agencies (RDAs) in coordinating stakeholders, aligning regional agendas with national and European frameworks, and facilitating future access to innovation funding. The implementation of regional S3 is expected to strengthen cross-sectoral cooperation, support the creation of clusters, and foster the green and digital transformation of existing industries. Furthermore, the establishment of monitoring and evaluation mechanisms will ensure the continuity and adaptability of regional innovation ecosystems over time.*

**Originality:** *This research provides one of the first comprehensive analyses of regional S3 implementation in the Republic of Moldova, contributing to the academic and policy discourse on place-based innovation governance in EU enlargement countries. Its originality lies in connecting analytical evidence with institutional practice, showing how data-driven mapping, multi-stakeholder engagement, and adaptive coordination can transform economically peripheral regions into active innovation ecosystems. The experience of the Republic of Moldova demonstrates that even neighbouring regions, when guided by evidence and participatory discovery, can develop distinct yet complementary innovation profiles strengthening national competitiveness and supporting sustainable development. By positioning regional specialization as a continuous and collaborative process of ecosystem building, the study highlights how evidence, cooperation, and institutional learning can drive long-term, inclusive regional growth.*

**Keywords:** *smart specialization, regional development, innovation ecosystems, entrepreneurial discovery process, Moldova, evidence-based policymaking, sustainable growth*

**Funding.** *Those studies were conducted as part of the regional analytical studies on smart specialization in the Development Regions of South and ATU Gagauzia, funded by the European Union, under the "EU4Moldova: Local Communities" programme, funded by the European Union, the German Federal Ministry for Economic Cooperation and Development (BMZ), the Austrian Development Cooperation (ADC), and the Ministry of Foreign Affairs of the Republic of Poland – Polish Aid; and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, the Austrian Development Agency (ADA), and the Solidarity Fund PL (SFPL) in Moldova (2024).*



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## **FOSTERING INNOVATION AND STRENGTHENING MOLDOVAN HIGHER EDUCATION THROUGH THE ADAPTATION OF JAPANESE POLICIES AND PRACTICES**

**Larisa Savga**

Trade Co-operative University of Moldova, Chisinau, MD-2001, Republic of Moldova / "Dunărea de Jos" University of Galați, Galați, Romania  
savga.larisa@gmail.com

ORCID ID: 0000-0002-9691-7475

### **Abstract**

**Objective:** Higher education is increasingly recognized as a fundamental pillar of innovation, competitiveness, and socio-economic development. Countries that invest consistently in education and research achieve significant economic and social performance. Japan represents a successful example in this regard, having become the fourth-largest economy in the world. By contrast, despite its considerable educational potential, the Republic of Moldova has not yet succeeded in transforming this resource into a driver of innovative development and economic growth. Adopting international best practices in higher education modernization is essential for strengthening the education-research-innovation ecosystem and fostering Moldova's sustainable development. The purpose of this research is to assess the scope, challenges, and development policies of the higher education system in Japan, and to identify opportunities for adapting Japanese best practices to the Moldovan context.

**Method:** The study employed a comprehensive methodology, combining document analysis, comparative analysis, benchmarking, and synthesis, and drawing on official statistics, policy papers, and strategic documents from Japan and the Republic of Moldova to identify challenges, emerging trends, and opportunities for higher education reform in our country.

**Results:** Japanese higher education constitutes a key pillar of economic and social progress, playing a strategic role in positioning Japan as a global leader in science, technology, and innovation. The current Japanese university system comprises 813 institutions, of which 620 are private, enrolling a total of 2.55 million students, 73.8% of whom attend private universities. The enrolment rate in higher education is among the highest worldwide (87.3%). Japanese universities play a fundamental role in transforming education into a driver of sustainable economic and social development. The development of higher education is actively supported by public policies focused on digitalization, internationalization, and industry collaboration, through which universities make a substantial contribution to Japanese societal advancement. Scientific societies play an important role in shaping research and educational policies, functioning as platforms for consultation and expertise, and facilitating collaboration among universities, research centres, and public decision-makers. In the Republic of Moldova, although multiple higher education reforms have been implemented over the past decades, universities have not yet succeeded in becoming significant sources of innovation and economic development. Their capacity to contribute to applied research, knowledge transfer, and close collaboration with the economic sector remains limited. Although the Republic of Moldova and Japan display relatively similar values in terms of university density and student numbers - 247 students per 10,000 inhabitants in Moldova compared to 239 in Japan, and one university per 148.8 thousand inhabitants in Moldova versus one per 152.0 thousand in Japan - the qualitative differences in the performance of their higher education systems and their socio-economic impact are substantial. According to the Global Innovation Index 2024, Japan ranks 13th worldwide (out of 133 countries), whereas Moldova is positioned 68th. Moreover, Japan's GDP per capita is 4.1 times higher than that of the Moldovan economy. These disparities reflect not only differences in economic performance, but also the extent to which the higher education and research systems contribute to innovation, competitiveness, and long-term development. The research revealed similarities and significant differences between the Japanese and Moldovan higher education systems, particularly with regard to institutional structures, policy frameworks, funding mechanisms, approaches to internationalization. The analysis also revealed that disciplinary scientific societies exert a significant influence on the formulation of educational and research policies. At the same time, our research



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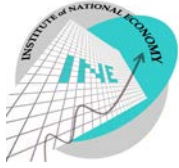
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*underscored opportunities for the adaptation of Japanese best practices as a means to strengthen the effectiveness, relevance, and competitiveness of higher education in the Republic of Moldova.*

**Originality:** *A comparative approach to higher education systems in two distinct geographical and cultural contexts: Japan, a global educational power, and the Republic of Moldova, a country undergoing transformation and European integration.*

**Keywords:** *higher education, educational policies, educational model, innovative development*

**Funding:** *This study has received support from HESPRI project (HORIZON-MSCA-SE, G.A. no.101086224). Views and opinions expressed are those of the authors only and do not necessarily reflect those of the European Union or the granting authority.*



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## **FINANCIAL INNOVATION AND SUSTAINABILITY: EMERGING CHALLENGES AND LIMITATIONS IN THE DIGITAL ERA**

**Suzana Turcu**

*"Francisc Rainer" Institute of Anthropology, Bucharest, Romania*

*suzana.turcu@antropologia.ro*

*ORCID ID 0000-0003-0208-4052*

### **Abstract**

**Objective:** *The rapid transformation of the global financial system in the digital age has generated both opportunities and constraints for achieving sustainability. Financial innovation, understood as the development of new instruments, technologies and systems of exchange, is no longer limited to traditional banking or capital markets. Instead, it now encompasses digital finance (FinTech, blockchain, artificial intelligence) as well as alternative community-based mechanisms (time banking, local exchange trading systems, barter, social currencies and sharing economy platforms). The primary objective of this study is to analyze the intersection between financial innovation and sustainability, identifying the challenges and constraints that arise in the digital era. Particular emphasis is placed on understanding how new financial instruments and alternative non-monetary systems can foster social inclusion, reduce environmental impact and promote equitable economic development, while also recognizing the risks of regulation gaps, digital exclusion and systemic instability.*

**Methodology:** *The study adopts a qualitative and comparative methodology, drawing on interdisciplinary literature in finance, economics, sociology and sustainability studies. The research design combines three layers: a theoretical review - mapping the evolution of financial innovation from traditional instruments (derivatives, structured products, green bonds) to digital technologies (FinTech, blockchain, tokenization) and non-monetary exchange models. The analysis integrates insights from sustainable finance and the Environmental, Social, Governance frameworks (ESG) to assess how innovation supports or undermines environmental and social objectives; A comparative case analysis exploring both institutional innovations (green finance, carbon markets, central bank digital currencies) and community-driven alternatives (time banks, LETS, barter platforms, social currencies and sharing economy initiatives). These instruments were selected for their diversity of contexts (formal vs. informal, digital vs. local, profit-driven vs. community-based); and third, a critical synthesis meant to identify cross-cutting challenges and constraints common to both categories of innovation. These include regulatory uncertainty, risks of greenwashing, technological dependency, issues of scalability and the potential exclusion of vulnerable groups lacking digital access because financial innovation cannot be evaluated solely on efficiency or profitability, but must be assessed in relation to social equity, ecological balance and long-term resilience.*

**Results:** *The findings reveal a dual dynamic in the relationship between financial innovation and sustainability. On the one hand, new financial tools generate unprecedented opportunities to support sustainable development. Green finance instruments, such as green bonds and ESG-focused funds, have succeeded in directing capital toward projects in renewable energy, energy efficiency and social inclusion. At the same time, digital finance powered by FinTech, blockchain and artificial intelligence has opened the way to greater transparency, reduced transaction costs and broader financial access, especially in underserved regions. Blockchain technologies in particular have enhanced traceability within supply chains and have facilitated accountability in carbon trading schemes. Beyond institutional finance, community-driven alternatives such as time banks, local exchange trading systems, barter networks, social currencies and sharing platforms have demonstrated their ability to strengthen social capital, enhance community resilience and encourage eco-friendly behaviors. Platforms for sharing goods and services, contribute directly to the circular economy by redistributing surplus and reducing waste. On the other hand, these innovations also introduce significant challenges and constraints. Regulation often lags behind financial creativity, leaving room for uncertainty, speculative misuse, or fraudulent practices, particularly in the context of unregulated cryptocurrencies or loosely defined ESG products. There is also a growing risk of greenwashing, where financial products labeled as "sustainable" provide little or no tangible environmental or social benefit. Moreover, while digital finance has*



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*expanded access for many, it has simultaneously deepened the exclusion of populations without reliable internet access, adequate infrastructure, or sufficient digital literacy. Alternative systems of exchange, despite their promise, face issues of scalability and long-term stability, as their value is frequently confined to local or closed communities. Questions of equity also arise: for instance, the principle of “one hour equals one credit” in time banking, although fair in theory, disregards the relative scarcity of skills and can generate imbalances. Similarly, barter systems continue to struggle with establishing equivalence between heterogeneous goods and services, which complicates their operation in practice. Financial innovation in the digital age is not only about efficiency and speed, but also about redefining the role of finance in supporting sustainable futures. The dual trajectory—formal digital tools and grassroots non-monetary systems—demonstrates the plurality of paths toward aligning financial practices with sustainability. Yet, without proper governance, transparency and inclusivity, innovation risks reinforcing the very inequalities and ecological pressures it seeks to mitigate. This study therefore calls for a reconceptualization of value, recognizing time, trust and communitarian values as equally important as financial capital in building sustainable societies.*

**Originality:** *The originality of this study lies in its integrated perspective. Most existing research treats financial innovation and sustainability as parallel domains: one strand emphasizes technological disruption in finance, while another examines ESG frameworks and sustainable investment. This paper bridges the two by systematically analyzing both digital-financial instruments and non-monetary community-based systems. By placing them side by side, it demonstrates that sustainability is not confined to high-level capital markets, but can also be fostered through grassroots innovations and social currencies that redefine value beyond money. Furthermore, the paper highlights how alternative exchange systems (time banking, LETS, barter, local currencies, sharing platforms) operate as laboratories of financial innovation. Although they function outside mainstream finance, they embody sustainable principles by reducing reliance on scarce resources, encouraging reciprocity and strengthening community resilience. Integrating these models into the broader discussion of financial innovation offers a more holistic understanding of sustainability in the digital age. Finally, the study contributes to ongoing debates on the governance of financial innovation. It emphasizes the necessity of adaptive regulatory frameworks, digital inclusivity policies and rigorous sustainability assessments to ensure that innovation genuinely serves environmental and social objectives. By articulating both the potential and the constraints, the research offers a balanced foundation for policymakers, financial institutions and community initiatives aiming to align innovation with sustainability.*

**Keywords:** *financial innovation; sustainability; green finance; ESG frameworks; alternative exchange systems*



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## **THE ROLE OF COMPETENCY-BASED EDUCATION IN THE ERA OF ARTIFICIAL INTELLIGENCE AND WORKFORCE DIGITALIZATION**

**Emilia Țițan<sup>1</sup>, Mihaela Mihai<sup>2\*</sup>, Alexandru Marian Petrișor Tănase<sup>3</sup>, and Iliana-Brîndușa Caragea<sup>4</sup>**

<sup>1,2</sup>The Bucharest University of Economic Studies, Romania / Institute of National Economy, Bucharest, Romania;

<sup>3,4</sup>The Bucharest University of Economic Studies, Romania;

emilia.titan@csie.ase.ro, mihaela.mihai@csie.ase.ro, alexandru.tanase@csie.ase.ro, iliana.caragea@csie.ase.ro

ORCID ID: [0000-0003-0614-1958](https://orcid.org/0000-0003-0614-1958), [0000-0003-0326-5402](https://orcid.org/0000-0003-0326-5402), [0009-0005-5382-2926](https://orcid.org/0009-0005-5382-2926), [0009-0000-6036-148X](https://orcid.org/0009-0000-6036-148X)

\*Corresponding author

### **Abstract**

*In the current socio-economic context, dominated by digitalization and the integration of artificial intelligence (AI) in almost all fields, competency-based education (CBE) becomes a primary factor for the adaptability and competitiveness of the workforce, while also offering solutions to the challenges generated by structural changes in the labor market.*

*As emerging technologies and automation change the way work is done, employee skill requirements are becoming more dynamic and complex. In this context, CBE is no longer just an educational option, but a necessary strategy to prepare the workforce to face future challenges, adapt quickly to new roles and actively participate in the digital economy. Adopting this approach also contributes to reducing skills gaps and increasing inclusion in the labor market, ensuring that employees are prepared for the opportunities and risks generated by technological transformations.*

**Objective:** *The main objective of this research is to assess the effects generated by AI and digitalization on the labor market, as well as the role of SBE in preparing employees for new professional requirements. It also analyzes the ways in which education can contribute to reducing skills gaps and increasing productivity and competitiveness.*

**Method:** *The analysis used to formulate the responses defining the research objective combines documentary analysis with a comparative analysis of international education models and is complemented by the results of the statistical evaluation of official data (Eurostat, OECD). Employment trends, the distribution of employees by education level, adult participation in continuous learning, and the demand for digital and transversal skills were assessed, while indicators reflecting the degree of overqualification and underqualification in the workforce were used to evaluate skills imbalances.*

**Results:** *This study outlines a conceptual framework for integrating skills-based education into labor market strategies. The results obtained show the emergence of new occupations generated by AI and the decline of repetitive roles – which can be easily automated, as well as the existence of significant skills gaps, highlighting the need for reskilling and upskilling initiatives. The increasing demand for digital, technical and transversal skills highlights the need for curricular reforms and the alignment of education with the real requirements of the labor market. Adult participation in continuing and lifelong learning programs proves crucial for maintaining professional relevance.*

**Originality:** *The use of a mixed-methods analysis, complemented by international best practices, provides an in-depth understanding of the relationship between competency-based education and workforce adaptability in the era of AI, which can lead to useful recommendations for educational policies and sustainable employment strategies.*

**Keywords:** *CBE; AI; digitalization; labor market; skills mismatch; reskilling; upskilling*



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## **ARTIFICIAL INTELLIGENCE (AI) A THREAT OR A CO-WORKER IN THE NEW PARADIGM OF CHANGING BUSINESS AND EMPLOYMENT MODELS? A CASE STUDY FOR HERITAGE ECONOMY**

**Valentina Vasile<sup>1</sup>, Ioana Bărbulescu<sup>2</sup>**

<sup>1</sup> Institute of National Economy, Bucharest, Romania; <sup>2</sup>PhD Candidate, School of Advanced Studies of the Romanian Academy, Doctoral School of Economic Sciences, National Institute of Economic Research 'Costin C. Kiritescu' & Institute of National Economy, Bucharest, Romania  
valentinavasile2009@gmail.com, ibarbulescu.ioana@gmail.com  
ORCID ID: 0000-0002-2368-1377

### **Abstract**

Artificial Intelligence (AI) is redefining the shape and character of work, generating new opportunities and threats. AI programs, ranging from reactive to autonomous, complement or substitute human labour and consequently change the balance between efficiency and inequality. Automation eradicates repetitive jobs, but at the same time poses threats of unemployment, segmentation of society and the paradoxical suppression of growth. Moreover, AI integration requires constant adaptation, high implementation costs, constant reskilling activities, and strict governance to address AI ethics and social responsibility concerns. On the basis of careful analysis of expert sources and cross-country comparisons at international level (OECD, EU, etc.), and statistical data for Romania (2014–2023) on AI patents, R&D expenditures, and researchers, the article identifies the effects of AI on employment, education system, and innovation potential. Firstly, the evidence shows Romania's chronic deficits in digital skills, education and structural employment market imbalances, and its regional employment, productivity, and vulnerability to automation differences. Secondly, sound application of AI in Romania is transforming the business model fundamentally, in some areas such as heritage capitalisation by a revolutionary yet innovative approach. Finally, the need for properly framed digital transformation policies, education reform, upskilling and reskilling of the workforce, and institutional reforms in order to develop competitiveness, inclusiveness, and resilience at the labour market level, is highlighted.

**Objective:** The present study examines the double-edged nature of AI as both a future threat and collaborator in the new trend of changing business and employment models, with special reference to Romania and its heritage economy. The objective is to analyze how AI integration merges with the sustainability development goals (SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation and Infrastructure) and reshapes the labour market, productivity patterns, and innovation potential. The research considers whether AI should be seen primarily as a job-disrupting element through its capability of jeopardizing employment security, or as a driver for competitiveness, inclusiveness, and sustainability.

**Method:** The research employs mixed-method with (i) literature review of OECD, EU and global studies on AI, labour market and sustainability, (ii) statistical analysis for Romania (2014–2023) on AI patents, R&D expenditures, human resources in science and technology, and (iii) case studies on business models based on AI, particularly heritage capitalization. It is complemented by references to empirical employer-employee international surveys (OECD employer-employee survey), as well as bibliometric overviews of AI, digitalisation, and sustainable development research tendencies.

**Results:** The findings reveal profound structural imbalances of Romania's digital economy, with high and enduring deficits in digital competence, education disparities, and territorial employment and productivity imbalances. Even though AI adoption poses such as unemployment and income inequality threats due to automation, it also creates new prospects in the guise of productivity increases, innovation, and redesigning work organization. Based on the evidence from OECD reports, over 70% of AI users report that their job satisfaction and work performance have increased, though job security issues remain common. The Romanian case demonstrates that AI adoption in specific industries, such as the heritage economy, has transformed traditional business models, introducing innovative practices for cultural capitalization. Moreover, AI contributes to sustainable development goals by fostering smart industrial

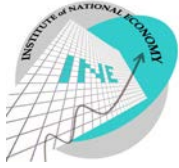


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*systems, clean technologies, and new decision-making roles that reduce uncertainty and enhance organizational efficiency.*

**Originality:** *The originality of this study lies in its interdisciplinary integration of AI's economic, social, and sustainability dimensions. As opposed to other research studies focusing on labour market, digitalization, or sustainability in disjointed approaches, this paper develops a comprehensive framework placing AI adoption between SDG 8 and SDG 9, illustrated by the case study of Romania. The methodology highlights the paradoxical nature of AI - threatening to destroy employment security whereas augmenting human imagination and innovation—and enunciates a business model where the heritage economy as a laboratory is employed for testing AI-driven digital transformation. By linking AI ethics, reskilling needs, and commanding institutions to policies for sustainable development, the paper outlines a new path for how AI can be guided towards inclusivity, resilience, and sustained competitiveness in European labour markets.*

**Keywords:** *Artificial Intelligence; labour market; Romania; digital competencies; sustainable development; heritage economy; innovation; reskilling; SDGs.*



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## **MODELS OF SUSTAINABLE SOCIAL ENTREPRENEURSHIP: A COMPARATIVE PERSPECTIVE ON ECONOMIC, CIVIC, AND RELIGIOUS ORGANIZATIONS**

**Constantin-Daniel Văduva**

University of Bucharest Doctoral School, Bucharest, Romania  
daniel@vaduva.eu

### **Abstract**

**Objective:** The present study analyzes models of sustainable social entrepreneurship within a comparative framework, focusing on three types of organizations with increasing relevance for the field of business administration and social development: economic ones (corporations and multinationals involved in social responsibility projects), civic ones (NGOs, foundations), and religious ones (religious institutions, with a focus on the Romanian Orthodox Church). The main objective of the study is to identify and compare the characteristics, mechanisms, and strategies adopted by these organizations for implementing models of sustainable social entrepreneurship, with an emphasis on organizational structure, the type of resources mobilized, the method of social involvement, scaling and replication strategies, as well as the results generated at the community and economic levels. In this context, the article proposes a multidimensional approach that allows for the distinction between the operational models adopted according to the specifics and mission of each organization, while also providing a useful analytical framework for academic research and for practitioners interested in sustainable development.

**Method:** The research methodology is based on a rigorous synthesis of recent academic literature and relevant empirical reports for each type of organization analyzed. For economic companies, the analysis focused on internationally established case studies regarding the implementation of CSR (Corporate Social Responsibility) projects and the integration of social responsibility principles into business strategies. For NGOs and foundations, representative examples from Romania were selected, with detailed documentation of governance mechanisms, financing models, and measurable social impact. For religious organizations, the method was based on case studies and internal documents, including public reports from the Romanian Orthodox Church on social initiatives, assistance projects during crisis periods, and community involvement strategies. The comparative approach included structuring the data according to common criteria: resource mobilization, economic performance, social impact, sustainability, and replicability. The analysis was supplemented by in-depth interpretations regarding the functional differences and possible synergies between the three organizational contexts.

**Results:** The research results indicate the existence of significant differences between the sustainable social entrepreneurship models adopted by economic, civic, and religious organizations. In the case of corporations and multinationals, the emphasis is on integrating CSR projects into the business strategy, generating both social and economic impact, but with challenges related to the scalability and authenticity of social implications. NGOs and foundations demonstrate increased flexibility in mobilizing local resources, participatory governance, and a high capacity for adaptation, implementing sustainable models that successfully respond dynamically to the emerging needs of communities. Religious organizations, exemplified by the Romanian Orthodox Church, are distinguished by the mobilization of social capital, strong volunteer networks, and community partnerships, managing to create projects with long-term impact, especially in times of economic or social crisis. The synthesis of the results highlights that each type of organization has its own advantages and limitations: economic companies can support financial impact and image effects, NGOs excel in innovation and adaptability, and religious organizations can rapidly mobilize resources and social capital for interventions with local or regional impact. The study also identifies the main challenges - from achieving economic sustainability to maintaining social relevance and the long-term expansion of programs.

**Originality:** The original contribution of the research consists in its comparative and multidimensional approach to sustainable social entrepreneurial models, applied simultaneously to three distinct types of organizations. The article brings to the forefront unexplored synergies between the economic, civic, and religious sectors, highlighting concrete possibilities for collaboration, transfer of best practices, and adaptation of operational strategies. Furthermore, the



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*paper proposes a methodological framework that can be replicated in future research, contributing to the evolution of the theory on sustainable social entrepreneurship. The conclusions and recommendations offered will help practitioners optimize implementation strategies, evaluate the sustainability of social programs, and adapt operational models to the requirements of the environment in which they operate.*

**Keywords:** *social entrepreneurship, sustainability, economic organizations, civic organizations, religious organizations*