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Marketing Communication Strategy for Increasing Attendance in Croatian Theaters

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Abstract

The aim of this paper is to identify and analyze effective marketing communication strategies aimed at increasing attendance at Croatian theatres. The study establishes the optimal communication channels through which audiences receive information about current performances and explores the potential integration of traditional and digital tools to enhance awareness and engagement. Particular emphasis is placed on the potential of modern digital instruments—such as social media, online advertising, SEO optimization, and email marketing—as a complement to classical marketing methods, with the goal of boosting cultural participation and ensuring the financial sustainability of theatres, theatre houses, and artistic ensembles.

The research methodology is based on a mixed-methods approach, combining a theoretical analysis of the relevant literature, the development of a financial model for theatres, and an examination of the evolution of marketing communications, alongside an empirical survey of theatre audiences. This blend of quantitative and qualitative methods has provided a comprehensive insight into the current state and future prospects for the application of marketing strategies in theatre activities.

Research findings indicate that strategies focused on digital communication channels significantly contribute to increased attendance. While word-of-mouth remains important, the study confirms that the growth in the use of social media, websites, and online advertising is associated with higher audience engagement. Recommended measures include targeted social media campaigns, SEO optimization, personalized email marketing, interactive campaigns, and improvements in online reservation systems, all of which secure the long-term sustainability and development of theatre culture.

Keywords: Marketing Communication Strategies; Theatre Attendance; Digital Tools

AI-Assisted Strategic Decision-Making: Ethical and Security Principles for Sustainable Banking and Tourism

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Abstract

This paper explores the role of decision-making processes in shaping ethical, sustainable, and customer-oriented practices within the tourism and banking sectors. While both industries operate in distinct environments, they share core challenges related to technological transformation, artificial intelligence (AI) integration, and the need for transparency and trust. In tourism, ethical AI applications—such as those highlighted in the literature. The importance of privacy, fairness, and inclusivity in service personalization and destination sustainability has also been of an increasing interest by researchers. Similarly, the banking sector faces comparable demands for ethical AI use, particularly in areas such as automated credit scoring, fraud detection, and personalized financial services, where transparency, bias prevention, and stakeholder engagement are critical. By drawing parallels between the two sectors, the paper demonstrates that sustainable competitive advantage increasingly depends on ethical decision-making frameworks that align digital innovation with social responsibility. The findings suggest that cross-sector learning, particularly regarding stakeholder inclusion and responsible AI governance, can strengthen resilience, enhance customer trust, and support long-term sustainability goals in both tourism and banking.

Keywords: Decision-making; tourism sector; banking sector; ethical AI; sustainable development; customer trust; digital innovation; responsible governance.

Petroleum Prices Adjustments: (A)symmetry in Bosnia and Herzegovina

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Abstract

The paper explores the phenomenon of asymmetric prices adjustment of petroleum products to changes in oil prices on the market of Bosnia and Herzegovina. We examine the existence of an asymmetric reaction of retail diesel and gasoline prices to changes in oil prices, analyzing whether there is a slower adjustment in the case of a decrease in oil prices compared to an increase. The research is conducted using monthly data, for the period from 2010 to 2024. The methodological framework includes the Engle-Granger cointegration test, the error correction model, and the Wald test to check for short-term asymmetric effects. The findings show that there is a long-term equilibrium in crude oil and petroleum products prices, with the degree of adjustment in derivatives prices being significant but not complete. Wald's test indicates the absence of asymmetry in the adjustment of diesel prices, while for gasoline there are indications of a possible price asymmetry, but it is not statistically significant at the level of 1%. So far, the market of Bosnia and Herzegovina has not been the subject of a detailed empirical analysis of price asymmetry in the petroleum products sector. We confirm the existence of a long-term relationship between crude oil prices and retail prices of petroleum products, and point to factors that may affect the imperfect adjustment. The research has implications for economic policy, primarily monetary, which can use the findings to design more effective mechanisms of market surveillance and price regulation, given that changes in oil prices can contribute to the emergence of cost inflation. Also, the obtained results can be useful to business entities in optimizing business strategies, as well as to consumers in better understanding the dynamics of price adjustments when making rational decisions about the disposal of personal income.

Keywords: crude oil prices, retail petroleum prices, Bosnia and Herzegovina, cointegration and asymmetric error correction model

Inhibitors of Low-Code/No-Code Software Development: A Literature Review and Case Study Approach

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Abstract

Digital transformation requires the digitalization of business processes. Organizations and vendors are in search of a panacea. In recent years, there has been a growing proliferation of low-code/no-code platforms. These platforms are designed to facilitate the development of software artifacts with minimal or no coding required. Given the shortage of IT professionals, who often also lack the necessary domain-specific business knowledge, many end users are increasingly turning to low-code/no-code solutions. Vendors of these platforms typically emphasize their advantages, which most commonly include ease of use and rapid development of software products. Other frequently cited drivers include cheaper software development, reduced dependency on IT departments, accelerated business process automation, and enhanced end-user innovation. However, what platform vendors often omit, but what organizations are increasingly becoming aware of, are the numerous challenges and inhibitors faced by end users and organizations that adopt these platforms. This paper identifies, through a review of relevant literature, the most common inhibitors associated with low-code/no-code software development. These inhibitors are then further examined through a case study methodology, evaluating their significance from the perspective of end users. The findings of this study may prove valuable to vendors, the organizations and end users who rely on these technologies.

Keywords: low code/no code development; end user development; inhibitors

Portraying the AI developing firms in Croatia

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Abstract

Adopting AI within various sectors (governance, business, civil society) has led to a significant increase in the global AI market size. As the latest EU-member state, Croatia stands as an example of fast-growing AI usage, following the EU trends and maintaining the AI adoption rate close to the EU-28 average. Croatia may be an interesting example of a small post-transition economy with underexplored AI potential; however, the structured data on the AI-developing companies is missing. This research sheds light on this narrow but promising part of the Croatian business sector. The original survey data aims to portray the AI developing sector by attributes of firms developing AI applications and solutions in Croatia in 2025. We empirically assess the AI developer's subsector in the small EU economy and analyse characteristics of different types of AI developing firms in terms of size, sector in which they operate, regional distribution, and financial results. We also distinguish firms according to their AI adoption stage, which aligns with the innovation diffusion theory classification (Rogers, 1962). Compared to other relatively scarce data sources on the AI adoption and development in Croatia, the added value of this study is that it includes the micro firms in the survey and analysis. Among surveyed AI developing firms, 74% are micro-sized firms with fewer than 10 employees. In the subsample of micro firms, there is a notable share of firms with only one or two employees. More than half of the AI developing firms come from the capital city of Zagreb. Most AI developing firms operate in manufacturing (46% of firms surveyed) and ICT sectors (43%), yielding very different financial results. The findings of AI-related activity of Croatian firms increase the overall knowledge of their AI potential and their role in fostering an innovation-driven economy. This is particularly important given that 44% of AI developing firms are early adopters of this new technology. The policy recommendations offered are developed in line with the EU policy framework.

Keywords: artificial intelligence; AI development; innovation; Croatia; technology adoption

Contribution of beaches in achieving competitiveness of Crikvenica Riviera as a tourist destination

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Abstract

Beaches form their offer based on diverse activities and natural attractions. As such they represent a relevant element of coastal destination's tourist offer. To remain competitive on the tourist market, destination management needs to monitor tourist's attitudes and improve the quality and diversity of their beach facilities in accordance with tourist's preferences, while upholding sustainability principles. Purpose of this research is to determine the attitudes of tourists towards beach facilities of Crikvenica Riviera, with a particular accent towards determining their motives for choosing a particular beach, and the level of satisfaction with the beach facilities. Empirical research was conducted with the use of a structured questionnaire, and methods of descriptive statistics were applied. Empirical findings indicate that tourists prefer staying in private accommodation and walking to the beach. When choosing a beach, their primary focus is on beauty of the landscape, cleanliness of the beach, gastronomic offer and personal amenities. In terms of themed beaches, they prefer family beaches, romantic beaches and beaches equipped with sports and recreational facilities. They expressed a moderate level of satisfaction with beach facilities indicating the need for improvement. Based on the findings developmental guidelines were proposed.

Keywords: Crikvenica Riviera; beaches as a tourist product; competitiveness of coastal destinations; tourist's attitudes.

Management of Tourism Development in Rural Areas - Case Study: Donja Kupčina, Croatia

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Abstract

The development of tourism in rural areas represents a significant element for the revitalization of rural areas. It is particularly important in terms of creating economic security and can serve as a lever for preventing further depopulation of these areas. Rural tourism provides opportunities for the development of new forms of tourist offer, which will contribute to the preservation of elements of tangible and intangible heritage. The purpose of this paper is to determine the state of tourism development of settlement of Donja Kupčina, Republic of Croatia. The first open-air museum dedicated to the past way of life was created in this settlement. The settlement, although located near two large urban centers, is losing its importance. The author conducted an analysis of the most relevant scientific and professional literature, as well as empirical research focused on the attitudes of the inhabitants of Kupčina. Based on the findings, a proposal of developmental guidelines and model CroRural or the development of rural tourism in the settlement of Donja Kupčina CroRural was made. Its adaptation aims to improve the general economic, social and demographic picture of the settlement while ensuring the preservation of resources and the growth of the population's living standards.

Keywords: rural area; rural tourism; management; heritage; Donja Kupčina

Sustainability and Sustainability Reporting in Serbia: Analysis of the Focus Group Results

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Abstract

In today's world, faced with various challenges, the issue of sustainability becomes an essential part of the attempts to build a better and more responsible human society. Since the sustainable development of society cannot be achieved without responsible and sustainable business practices, companies have a significant role in meeting the sustainable development goals. Regarding the necessity of achieving the goals of sustainability derived from the 2030 Agenda, Serbia, as a full-fledged member, is no exception. Therefore, companies in Serbia are obligated to follow the 2030 Agenda as well as the sustainable development goals established in this document. However, much evidence shows that Serbia lags behind the European Union average in almost every indicator regarding these goals. Additionally, according to current regulations in Serbia, only companies with more than 500 employees are required to publish non-financial reports referring to sustainable practices. Given the importance of sustainability and sustainable business practices as well as the numerous challenges related to these issues in Serbia, the aim of this paper is to gain deeper insights into this topic. To achieve this aim, a focus group as a qualitative research method, was implemented. The experts from the area of sustainability who took part in the focus group, highlighted the crucial problems and shortcomings in the area of sustainability in Serbia, upon which some recommendations for the policymakers in this country were presented in the paper.

Keywords: sustainability; sustainability reporting; companies; policymakers

The Role of Sustainable Institutions in Promoting Economic Growth in Southeast Europe

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Abstract

The aim of this study is to analyze and evaluate the role and importance of sustainable institutions in promoting economic growth in the countries of Southeast Europe. The study seeks to identify how institutional quality including good governance, rule of law, transparency, and the fight against corruption affects the economic performance of the region. The importance of institutions is fundamental in creating a stable macroeconomic environment and attracting both domestic and foreign investment. Effective institutions contribute to a more equitable allocation of resources, increase economic efficiency, and enhance the trust of citizens and investors in state structures. To carry out this study, secondary data will be used, collected from reliable sources such as the World Bank, International Monetary Fund, European Central Bank, and Eurostat. The time period analyzed spans 12 years (2010 - 2022), encompassing significant political and economic developments in the region and allowing for a more comprehensive assessment of institutional and economic trends. An econometric model will be employed in this research, along with various statistical analyses that are essential for validating the research hypotheses. Considering the results, it can be concluded that an improvement in institutional quality is associated with an increase in GDP. Furthermore, political stability and inflation control contribute positively to economic growth. However, an interesting finding is that an increase in corruption control has, in some cases, negatively impacted GDP, possibly due to immediate structural adjustments that temporarily affect economic activity. This study provides an overview of the impact of institutional quality on economic growth in the SEE countries and highlights the need for policies that strengthen good governance, institutional effectiveness, and corruption reduction. The results are consistent and align with empirical analyses, while the period covered offers a solid foundation for drawing relevant conclusions and recommendations.

Keywords: GDP; institutional quality; corruption; sustainable institutions.

How does financial inclusion impact entrepreneurship in developing countries?

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Abstract

This paper aims to investigate the relationship between financial inclusion and entrepreneurship in a developing country such as Albania. Entrepreneurial activity is one of the key drivers of economic development, a catalyst of innovation and new job creation, especially in developing countries. On the other hand, financial inclusion has received a lot of attention in recent years, and it is included in every government's agenda, aiming to build inclusive financial systems. The financial system generally impacts the level of entrepreneurship; however, there is a gap in assessing the relationship between financial inclusion and entrepreneurship.

This study employs a multiple regression analysis with secondary data for 14 years (2010 – 2023). The business growth rate is used as an indicator to express the entrepreneurial activity (dependent variable), and commercial bank branches (per 100,000 adults) are used as a proxy to express financial inclusion (independent variable). To increase the model's accuracy, several control variables have been included: regulatory quality, domestic financing, and GDP growth rate.

The output of the regression analysis supports the positive relationship between financial inclusion and entrepreneurship growth in Albania. Meanwhile, regulatory quality and domestic financing negatively affect entrepreneurial activity and GDP has no statistically significant effect.

Keywords: financial inclusion; entrepreneurship; developing country

Western Balkan Countries and the European Union's Need to Reshape Migration Policy Towards Pakistani Immigrants

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Abstract

Pakistan, with a population of 247.5 million and an area of 881,640 km², is rich in land resources. However, the Constitution does not classify land as a natural resource, an omission that needs correction. Unequal land distribution is a major cause of unemployment. 98% of households control only 55% of farmland, while just 2% own 45%. Many landowners do not use their land for agriculture.

Pakistan needs to generate 1.5 million jobs annually as per the non digital and non real time estimate of the Planning Commission of Pakistan. But real digits are much higher. Yet, there is no digital system to register unemployed individuals, whether educated or not. On April 19, 2024, Engineer Kamran Khan addressed this gap at an international conference in Russia, proposing a real time digital unemployment registry and urging the government to allocate budget for its development.

Foreign investors can acquire land in Pakistan, but there is no mechanism to use this land for job creation for local Pakistanis. Millions of Pakistanis are forced to migrate illegally to Europe, especially via the Western Balkans. The government of Pakistan earned 34.1 billion dollars from foreign remittances in 2024. The people often pay over 3 million rupees for this life risky journey. Readmission agreements have failed to curb illegal migration. Western countries, including the Bosnia and Herzegovina, United Kingdom, Italy and European Union, should encourage Pakistan to launch a real time, age friendly unemployment registry and implement land reforms to create sustainable employment for Pakistan's growing population.

Keywords: illegal migration; remittances; land reforms

The Impact of Procedural Non-Tariff Barriers on Foreign Merchandise Trade: Evidence from Bosnia and Herzegovina

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Abstract

This study delivers a comprehensive quantitative assessment of procedural administrative non-tariff barriers (NTBs) faced by Bosnia and Herzegovina's manufacturing sector. Drawing on a structured web-based survey of 119 processing-industry firms, selected via stratified random sampling to ensure representation by size and sub-sector, respondents rated on a five-point Likert scale how often they encountered key procedural hurdles such as certification of origin delays, customs valuation disputes, sanitary and phytosanitary inspections, and import-licensing requirements. Findings indicate that over 60 % of firms report experiencing origin-certification and valuation issues while more than half of respondents face frequent challenges with sanitary measures and license acquisition. To contextualize these firm-level insights, the study incorporates secondary data from the OECD Trade Facilitation Indicators and the World Bank's Logistics Performance and Trading Across Borders metrics, revealing that BiH continues to lag behind regional peers in digitalisation of customs processes, and single-window implementation. These combined empirical results underscore the urgent need for policy reforms—such as streamlined documentation workflows, enhanced digitalization of customs procedures, and expanded use of risk-management techniques—to reduce administrative burdens, lower transaction costs, and improve the competitive position of BiH exporters and importers.

Keywords: procedural non-tariff barriers; quantitative survey; trade facilitation; Bosnia and Herzegovina; manufacturing sector

Economic Challenges of the Energy Sector and the Possibility of Introducing a Decarbonization Tax in Western Balkan Countries in the Context of European Integration

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Abstract

The energy sector in the Western Balkans faces challenges in aligning with EU energy policies due to outdated infrastructure, dependence on coal, and insufficient regional integration. The research problem can be defined by the question: How can the introduction of a decarbonization tax affect economic development and the energy transition of Western Balkan countries in the context of European integration?

The main objective of this paper is to identify the key economic challenges faced by Western Balkan countries in the decarbonization process, including financial constraints, social impacts, and regulatory barriers. The analysis introduces the complex process of energy transition in the Western Balkans, focusing on the economic aspects of decarbonization and their link to European integration. A mixed quantitative–qualitative methodology will be applied to analyze the level of compliance of national energy policies with EU decarbonization standards, along with an assessment of the economic and infrastructural capacities for energy transition in Western Balkan countries. The data processing methods used in this study include comparative analysis, qualitative content analysis, simulation analysis, and visual presentation through tables.

The research results will indicate whether a decarbonization tax is necessary, whether Western Balkan countries are ready for such a reform, and whether revenues generated from this tax can be used to support the green transition. The conclusion will highlight the significance of introducing a decarbonization tax, its equitable application across Western Balkan countries, and possible negative social and economic consequences. Data published by the World Bank, Eurostat, and IEA databases, as well as national energy strategies, will be utilized in this study.

Keywords: Western Balkan countries; decarbonization tax; integration

JEL Classification: E60, H23, Q48, P18

Toward Context-Specific Evaluation Tools: The Case of Moldova's Entrepreneurial Ecosystem

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Abstract

Entrepreneurial ecosystems have become the object of particular interest in research and policy over the past decade, as a thriving entrepreneurial ecosystem (EE) can spur innovation, job creation, and regional development. This has led to an increase in the number of methodological frameworks and indices aimed at measuring the quality of entrepreneurial ecosystems across countries, based on a common set of entrepreneurship conditions. However, a growing critique in the literature is that “one-size-fits-all” models may obscure local contextual differences. As a result, a need has been identified for context-specific local entrepreneurial ecosystem assessment tools that can provide nuanced insights, reflecting the heterogeneity of relevant factors within a country. The case of the Republic of Moldova illustrates this need.

To bridge this gap, a group of researchers from the National Institute for Economic Research of ASEM developed and tested a multidimensional assessment methodology for Moldova's EE. It was designed to cover eight key components of the ecosystem – Financing, Human Capital, Infrastructure, Innovation, Entrepreneurial Culture, Markets, Legal Framework and Regulation, and Exposure to Internal and External Risks – broken down into 134 context-relevant indicators. Using a nationwide survey of 204 entrepreneurs, we assessed each component via a composite coefficient that reflects entrepreneurs' evaluations. Based on the results obtained for each component of the EE, the Entrepreneurial Ecosystem Evaluation Coefficient (Kee) was calculated, representing the weighted average evaluation of the entrepreneurial ecosystem per component. The obtained results highlight specific strengths and weaknesses in Moldova's ecosystem and underscore the importance of localized diagnostic tools.

Keywords: entrepreneurial ecosystem; assessment framework; Republic of Moldova

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Theoretical and Applicative Approaches to Business Combinations: A Case Study from the Republic of Moldova

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Abstract

The emerging economy of the Republic of Moldova constitutes a favorable environment for mergers and acquisitions (M&A), governed by specific regional factors, local economic opportunities, and the population's aspirations toward European integration, as well as recent global disruptions (including the pandemic crisis, regional instability, and the armed conflict in the neighboring country). Motivated by the international research in this field, we aimed to conduct an exhaustive empirical study on the financial performance of M&A transactions for a sample of 375 enterprises from the Republic of Moldova, specifically during the period from 2019 to 2024, a time interval marked by economic volatility and strategic significance.

The research objective is to establish and conditionally validate the variation in return on assets and capital indicators in Moldovan mergers, as well as to investigate how capital structure and the size of the acquirers and acquirees influence the performance of these transactions.

Research methodology: The quantitative research includes systematization and grouping of data from financial statements provided by the National Bureau of Statistics for entities participating in M&A, as well as multiple linear regression analysis to assess the dependence of return on assets (ROA) and return on equity (ROE) as a result of changes in independent variables. Additionally, R Studio, JASP, and Excel applications were used as statistical data processing tools, while the Bibliometrix tool and Web of Science database were applied for bibliometric analysis.

The research results support the purpose and hypotheses of the paper through three multiple linear regression models, which established the significant dependence of ROA and ROE, determined by gross commercial margin, asset size, and debt ratio.

Keywords: mergers and acquisitions (M&A); business combinations; financial performance.

JEL: G34, M40, M41

The Challenges of Higher Accounting Education in Developing Sustainability Skills

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Abstract

The purpose of this research is to identify and analyse the challenges faced by accounting higher education in the Republic of Moldova in the process of developing sustainability competencies in accounting graduates. To achieve said purpose, we outlined several research questions:

Q1. What expectations do employers have regarding accounting graduates' sustainability competencies?

Q2. What are the main obstacles and difficulties faced by accounting higher education regarding sustainability?

Q3. What would be the best practices and innovative ideas for developing accounting graduates' sustainability competencies?

This research adopted a mixed methodology, combining primary and secondary data analysis. The main instrument for collecting primary data was an online questionnaire, addressed to a wide range of respondents which had direct or indirect relevance to accounting and higher education, developed and administered through the Google Forms platform. To substantiate the context and validate the primary data, an in-depth analysis of secondary data (regulatory framework, study programs, published sustainability reports, specialized literature, etc.) was conducted.

The research provides a clear picture of both the existing gaps in current accounting study programs in terms of the formation of sustainability skills, as well as viable solutions in this regard and will serve as a basis for university decision-makers to initiate and implement revisions of the curricula and teaching-learning methods, adapting them to market requirements and global trends.

Digital Transformation of Public Money: An Analysis of the Role and Impact of Central Bank Digital Currencies

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Abstract

The digital transformation of public money, through the development and implementation of central bank digital currencies (CBDCs), represents one of the most pressing issues in contemporary monetary theory and practice. This paper aims to analyze the role and potential impact of CBDCs on the structure of modern monetary systems, with particular emphasis on institutional changes, monetary policy, financial stability, and digital inclusion. The central research question concerns how CBDCs, as a digital extension of sovereign money, can contribute to a more efficient, secure, and accessible payment system while preserving the fundamental characteristics of public money. Methodologically, the study is based on the analysis of secondary sources, including central bank reports, relevant legislative initiatives, data from international financial institutions, and recent academic literature. The paper compares implementation models across different jurisdictions in order to identify regulatory approaches, technological solutions, and economic consequences associated with the adoption of CBDCs. The findings indicate that CBDCs can significantly enhance transparency, resilience, and accessibility of financial services, but also raise new challenges related to privacy, technological security, disintermediation of the banking sector, and global coordination of monetary policies. Special attention is given to the balance between innovation and stability, as well as the potential implications for the role of central banks in the digital age. In conclusion, the study highlights that the successful digital transformation of public money through CBDCs depends on the development of an inclusive, legally defined, and technologically sustainable model that responds to specific socio-economic contexts.

Keywords: Central bank digital currency (CBDC); public money; digital transformation; monetary policy; financial innovation; payment systems.

JEL: E58, F65, H83

The Impact of Public Debt Structure on the Macroeconomic Stability of the Western Balkan Countries

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Abstract

This study examines the relationship between the structure of public debt and the level of macroeconomic stability in the Western Balkan countries, with particular emphasis on the composition of debt by source of financing—namely, domestic versus external debt. The central hypothesis of the research is that countries with a higher share of external debt relative to domestic debt tend to exhibit lower levels of macroeconomic stability and face greater fiscal risk. Through the application of quantitative analysis and a comparative approach, the paper investigates key indicators of fiscal sustainability. The findings suggest that greater reliance on domestic borrowing can reduce exposure to external shocks, especially during periods of significant economic crises, thereby contributing to fiscal stability. The conclusions of this study may serve as a foundation for the formulation of more sustainable fiscal policies and the development of effective public debt management strategies in the Western Balkan region.

Keywords: Public debt structure; macroeconomic stability; domestic debt; external debt; fiscal risk

Industry 4.0 and SMEs in Developing Countries: Strategic Challenges and Opportunities for Growth

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Abstract

Industry 4.0 represents a transformative movement bringing significant changes to production through smart technologies, automation, and data-driven decision-making. This paper explores the strategic challenges and opportunities faced by Small and Medium-sized Enterprises (SMEs) in developing countries within the context of Industry 4.0. SMEs can achieve significant advantages through the integration of the Internet of Things (IoT), data analytics, and other digital tools, enabling supply chain streamlining, cost reduction, and improved inventory management. Digitalization provides SMEs with access to global markets, increases innovativeness and productivity, and enhances customer satisfaction.

This paper presents a systematic literature review aimed at identifying the key challenges and opportunities that Industry 4.0 brings to SMEs, as well as synthesizing existing research. Based on this, it provides guidelines for future research and practical recommendations for SMEs. However, the implementation of Industry 4.0 poses challenges such as high costs, the need for workforce training, and cybersecurity risks. Governments and financial institutions can play a crucial role in supporting SMEs through accessible financing options and infrastructure development. Accordingly, this paper offers recommendations for governments and financial institutions on how to better regulate the business environment for SMEs. Further research is recommended, focusing on the development of theoretical frameworks, the collection of accurate data, and the execution of comparative studies to identify best practices and challenges in Industry 4.0 implementation.

Keywords: Industry 4.0; small and medium-sized enterprises; developing countries; challenges; opportunities

The Impact of Competition Levels on the Development of the Insurance Market

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Abstract

In today's dynamic economic environment, competition is a key factor that shapes and influences the development of various industrial sectors, including the insurance sector. Understanding the dynamics of competition and its impact on the insurance market is essential for effective management of this sector and for making relevant business and regulatory policies. The aim of this research is to analyze and evaluate various competition factors and their contribution to shaping the insurance market, as well as to identify strategies that can enhance competitiveness and sustainable growth in this sector.

Through a systematic analysis of literature, empirical studies, and theoretical concepts, this paper explores how competition affects the development of the insurance market, identifies key competitiveness factors, and analyzes implications for practice and policy. The Hirschman-Herfindahl Index (HHI) is used to quantify the level of market concentration and its correlation with insurance market development. Research results indicate that the overall insurance market in Bosnia and Herzegovina in 2022 was characterized by a high level of competition, while the life insurance market was moderately concentrated. However, despite this high level of competition, the Bosnian and Herzegovinian insurance market is underdeveloped compared to other countries, suggesting a paradoxical situation.

This research contributes to a better understanding of the role of competition in insurance market development and provides concrete recommendations for regulatory bodies and policymakers. It particularly emphasizes the importance of managerial competence and access to inputs and finance as key determinants of firm performance and competitiveness, especially for small and medium-sized enterprises (SMEs). The paper concludes that managing competitiveness in the insurance market requires cooperation among all stakeholders and the application of effective regulatory frameworks that promote fair competition and industry integrity.

Keywords: Competition; insurance market; management; Hirschman-Herfindahl Index (HHI); Bosnia and Herzegovina; strategies; regulatory policies.

How Taxpayers Perceive Digital Tax Administration in Slovenia?

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Abstract

The digital transformation of society, which has progressed at an extraordinary pace over the past decade, creating significant opportunities and challenges for all parts of social systems, including the tax system. The OECD (2022) predicts the almost complete automation of tax procedures, which opens up the possibility of removing many structural constraints of existing systems. Tax administrations are therefore accelerating their involvement in digitization processes in order to manage public revenues more efficiently and effectively with limited resources. It is crucial that the increased efficiency of tax procedures through digital services is achieved by providing a better user experience for taxpayers. This involves moving from complex, sequential procedures to more inclusive, user-friendly solutions that are integrated into individuals' business and everyday digital systems (OECD 2025a). This transformation has important implications for tax systems in the region, including Slovenia, which faces the issue of tax non-compliance. According to the OECD (2025b), the digital modernization of tax systems can be a key step towards greater social justice, legal certainty, and tax compliance. In this paper, we examined how taxpayers perceive digital tax administration in Slovenia. Using a structured questionnaire, we conducted an empirical study in the first half of 2025 on a sample of taxpayers on two specific groups of taxpayers: accountants and self-employed individuals. We assumed that user satisfaction with the information provided by the tax authority is positively linearly related to satisfaction with the services provided by the tax authority. At the same time, we also tested whether taxpayers' satisfaction with the ease of use of the digital system in Slovenia (eDavki) is positively linearly related to their intention to fulfil their tax obligations on time. The results of the study can help tax policymakers and tax administrations to improve the user experience with digital services and provide useful guidance for developers of digital solutions and researchers in the field of public administration and digital transformation.

Bridging the Financial Gap: The Role of Microcredit in Empowering Economically Excluded Populations in the Western Balkans – An Empirical Case from Republika Srpska

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Abstract

Objective: This paper examines the potential of microcredit to promote microentrepreneurship among economically excluded individuals in the Western Balkans, with a focus on those who have exited the labor market early.

Methods: The research is based on a 2023–2024 survey conducted in Republika Srpska among 575 respondents. The survey explored access to financial products, willingness to use credit cards, and interest in self-employment initiatives.

Results: More than 20% of respondents would take a credit card if available, and over 10% expressed possible interest. These findings point to a significant untapped demand for financial tools among the economically excluded, especially older individuals.

Conclusion: The study highlights the need to combine education and flexible microcredit solutions to encourage entrepreneurial activity and local economic development. Microcredit institutions should expand their role beyond financing to include financial and entrepreneurial education tailored to older populations.

Keywords: microcredit; financial inclusion; microentrepreneurship; credit cards; economic inclusion

Modeling of Factors Driving SMEs' Resource Efficiency in South East Europe

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Abstract

Sustainable development goal 12 "Ensure sustainable consumption and production patterns" focuses on the sustainable use of resources, according to the principles of circular economy, which also encompass production processes. This study analyzes the SMEs' resource efficiency in South East Europe (SEE), comparing the SEE EU member-states (Croatia, Bulgaria, Romania and Greece) and the non-EU countries (Bosnia and Hercegovina, Serbia, North Macedonia, UNMIK Kosovo*, Albania and Montenegro). The study relies on secondary data from the EU Flash Eurobarometer 549 on SMEs, Resource Efficiency and Green Markets.

The study uses discrete choice modelling to analyze differences in factors determining the SMEs' resource efficiency in the SEE. Number of resource efficiency measures and investments in resource efficiency are the dependent variables in the proposed model, analyzing their influence to selected SMEs' characteristics and key dimensions of environmental sustainability. We identify barriers to achieving higher resource efficiency levels and recommend new policies and interventions in the fields of developing entrepreneurial infrastructure and ecosystems in the SEE region.

Keywords: resource efficiency; SMEs; Flash Eurobarometer 549; South Eastern Europe; green markets

*In line with UNSCR 1244

Insurance Market Development and Economic Growth in the Western Balkans: A FAVAR Approach with Exogenous Variable

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Abstract

The relationship between insurance market activity and economic growth is a well-explored area in economic literature, yet findings frequently vary depending on the specific dataset, methodology, and the developmental stage of the economies under examination. While many studies, particularly those focusing on developing countries, point to a positive link between insurance consumption (both life and non-life) and economic growth, indicating a more critical role for insurance in less developed and developing nations, the variations of this relationship are complex. However, previous research on the Western Balkans shows mixed results: non-life insurance has short-term benefits in Bosnia and Herzegovina, while life insurance shows little impact. In Albania, research found no long-term link, partly due to a bank-based system and a preference for saving. In emerging markets, economic growth supports life insurance, but its effect on growth is limited due to traditional product dominance. These disparate findings highlight the need for a more robust methodological approach, especially given the unique macroeconomic environments of Western Balkan economies, often characterized by currency board regimes, underdeveloped financial markets, and limited monetary policy autonomy. Traditional econometric models, such as standard Vector Autoregressions (VARs), are limited in their capacity to incorporate large datasets or latent influences, which can hinder accurate forecasting and policy analysis. To address existing empirical gaps, this study applies a Factor Augmented VAR model with exogenous variable (FAVARX) to five Western Balkan economies. This method offers key advantages: it captures hidden common shocks and reduces small sample bias by using latent factors from broad macro-financial data; it accounts for EU interest rate effects, which is deemed critical for euro-linked economies, without inflating the model; and finally, it enhances statistical power by pooling data across similar countries. This methodological approach is expected to provide deeper insights into the complex interplay between insurance market development and economic growth within the specific context of the Western Balkans, offering a deeper and more nuanced understanding for policy considerations.

Keywords: insurance market development; economic growth; Western Balkans; FAVAR with exogenous variable; EU interest rate shocks

JEL: G22, O47, C38, E44, E52

Quantitative Course Load in Economics Curricula: A Cross-National Comparison of ECTS and Instructional Hours in Ex-Yugoslav Universities

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Abstract

This article examines the relationship between ECTS (European Credit Transfer and Accumulation System) points and weekly instructional hours in statistics and mathematics courses within undergraduate economics programs across former Yugoslavian countries. Given that ECTS is intended to represent the overall student workload, including both classroom engagement and independent study, the article aims to assess whether instructional practices reflect its underlying logic. The analysis is based on curriculum data from three-year and four-year programs, with a focus on the extent to which ECTS credit values correspond to weekly class time. Results reveal a strong positive association, suggesting that programs with higher ECTS allocations for quantitative subjects tend to offer more weekly instructional hours. This points to a consistent approach to structuring course intensity in line with the conceptual goals of the ECTS framework. In addition, a comparison of three-year and four-year programs shows no significant difference in the average weekly class load per ECTS point. This indicates a broadly harmonised implementation of credit-to-workload ratios, regardless of program duration. Overall, the findings support the idea that higher education institutions in the region are applying ECTS credits in a way that meaningfully reflects instructional demands in quantitative subjects. The article contributes to discussions on curriculum coherence and provides a foundation for evaluating whether credit systems effectively support transparent and balanced program design in European higher education.

Keywords: quantitative courses; economics education; ex-Yugoslav countries; curriculum analysis

Financial Indicators Analysis as a Function of the Efficiency of Using Bank Loans

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Abstract

The goal of this paper is to present the results of analyzes from various research studies on the effects of the use of bank loans in the financing of business entities, credit risk assessments and analysis of financial variables of legal entities as bank clients. The key role (Wali, 2018) of the value of financial ratios is emphasized, both in predicting the business quality and in assessing the credit risk. The research (Alqam, 2021) concludes that financial indicators contribute 53% to the investor's decision. Financial analysis using current financial statements can be used to better predict the future state of financial positions (Baharee, 2021). The methods used in the empirical part of the research include the use of statistical techniques, including regression and correlation analysis, in order to examine the interaction between independent variables (financial indicators of the company) and dependent variables (financial stability and efficiency of the company's operations). The comparative presentation of the data obtained through the statistical analysis of the financial indicators of the sampled business entities should provide an overview of performance in areas such as profit margins, Return on Assets (ROA) and Return on Capital Employed (ROCE). Adequate analysis presupposes credible financial reports created in accordance with the international accounting standards which reflect the real performance of the company. The aforementioned analyzes are also of great use to regulatory authorities, shareholders and investors, creating an important basis for making the most complex decisions.

Keywords: financial indicators; liquidity; profitability; credit risk; creditworthiness

JEL Classification System: G21

Susthonomics and Tourism: A New Paradigm for Sustainable and Inclusive Destination Development in the Western Balkans

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Abstract

This paper introduces the concept of susthonomics as a new theoretical and developmental paradigm that integrates economic, social, and environmental dimensions of sustainability. Tourism, as a sector deeply intertwined with space, community, and natural resources, offers fertile ground for the application of susthonomic principles. The paper analyzes global examples of good practice (Slovenia, Bhutan, Costa Rica) and compares them with developmental potentials in the Republic of Srpska and the Western Balkans region. A model of susthonomic tourism is proposed, based on four pillars: (1) local value retention, (2) social inclusion, (3) environmental responsibility, and (4) a wellbeing-oriented rather than growth-driven economy. Special attention is given to the application of this model in rural and peripheral destinations. The conclusion offers the first working definition of susthonomics in tourism and outlines key policy recommendations for integrating this concept into destination development strategies.

Keywords: susthonomics; sustainable tourism; social economy; local development; wellbeing

JEL: Z32, O21, Q56, R11, L83

Green Productivity Convergence in the European Union: A Spatial Econometric Assessment in the Context of the European Green Deal

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Abstract

This paper explores the spatial convergence dynamics of Green Total Factor Productivity (GTFP) across European Union (EU) member states over the period 2001–2023, against the backdrop of the European Green Deal and related climate policy frameworks. GTFP is estimated using a non-radial directional distance function (DDF) within a slack-based Data Envelopment Analysis (DEA) model, incorporating both desirable outputs (GDP) and undesirable outputs (CO₂ emissions, energy intensity), consistent with the Malmquist–Luenberger productivity index and the weak disposability assumption (Färe et al., 1994).

To account for spatial dependence and cross-border spillovers in green growth determinants, we apply a Spatial Durbin Model (SDM) estimated in a dynamic panel data framework. The model captures both endogenous interaction effects and the influence of spatially lagged exogenous variables such as renewable energy investment, environmental regulation stringency (OECD EPS index), and eco-innovation capacity (Eco-Innovation Scoreboard).

Sustainability of Healthcare Financing in Greece

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Abstract

The decade-long economic crisis in Greece (2010–2020) and the subsequent COVID-19 (2020–2021) pandemic exposed fundamental weaknesses in the country's social health insurance system, especially in its main provider, the National Organisation for Healthcare Services Provision (EOPYY).

The current healthcare system operates on a pay-as-you-go (PAYG) model, funded primarily through mandatory social contributions and state subsidies.

This study examines the long-term sustainability of healthcare financing in Greece by applying an actuarial projection model that incorporates demographic and economic trends through 2035. Based on varying population and economic assumptions, it assesses solvency under three distinct scenarios: optimistic, neutral, and pessimistic.

The model adheres to best practices from EU countries and employs actuarial methodologies aligned with OECD standards. It underscores the need for preemptive financial planning, reserve accumulation and the use of new financial tools to mitigate demographic risks and economic uncertainty. Key policy implications include converting state subsidies into structured contributions, creating reserve buffers, and introducing optional complementary insurance schemes.

The findings suggest that, with timely reforms and a prudent fiscal strategy, Greece can establish a sustainable and equitable healthcare financing system capable of withstanding demographic shifts and economic fluctuations.

Green Corporate Bond Pricing under Volatility and Climate Risk

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Abstract

The last years, there is an attention of the research community to the effects of idiosyncratic volatility and volatility risk on corporate bonds returns and pricing. More recently a strand of literature focused on isolation on the impact of volatility risk and climate risk on corporate bond returns and pricing. In this study, we make focus on corporate green bond returns regarding the Greek market beginning by examining the effect of idiosyncratic volatility. The most important part concerns the investigation of the join effect of volatility risk and climate risk on the pricing of green corporate bonds. For this reason, we incorporate a volatility factor, a climate risk factor and the bond market factor into the term-default two-factor bond pricing model of Fama and French (1993) constructing a new five-factor pricing model of green corporate bonds. Finally, to capture the strong impact of inflation as expressed through two phases of rise and fall during the period under consideration, we apply the Markov Switching Regression. Our results show that idiosyncratic volatility has a different impact on Greek corporate green bond returns depending on the magnitude of inflationary pressures. Similarly, based on Markov Switching Regression on new five-factor pricing model the results show that in the presence of inflationary pressures the increase of climate risk decreases the valuations of green corporate bonds by investors while the volatility risk is an insignificant factor for their decision. During the presence of non-inflationary pressures, the investors reinforce their positions to green corporate bonds when the climate risk increases, the volatility risk decreases and at the same time face low term structure and strong market behavior. Additionally, the parameter alpha of the five-factor bond pricing model decreases moving from regime 1 to regime 2. Thus, our proposed model captures the premium of volatility risk and climate risk well and makes a significant marginal contribution to explaining the excess returns of green corporate bonds.

Keywords: Corporate Green Bonds; Climate Risk; Volatility Risk; Five Factor Pricing Model.

JEL classification: C11, G10, G11, Q50

Economic and Behavioral Factors Influencing Electricity, Telecommunications and Discretionary Services Price Sensitivity Among Households in Bosnia And Herzegovina

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Abstract

This study examines household consumer reactions to proposed electricity tariff increases in Bosnia and Herzegovina. The Van Westendorp Price Sensitivity Meter was applied in a representative survey of electricity users to identify acceptable price ranges. The survey gathered price thresholds for potential rate changes, as well as data on service satisfaction, perceptions of fairness and demographic factors.

Results reveal that tolerance for higher electricity prices is extremely narrow. Electricity is an essential household good with inherently inelastic demand and consumers resist price hikes rooted in fairness concerns and distrust of utility providers. Consistent with international evidence, many respondents viewed tariff increases as symptoms of corruption or mismanagement. Stated willingness to pay was not found to increase with satisfaction; willingness to pay frequently failed to reflect satisfaction. Gender differences were observed, with female respondents less willing than men to accept surcharges for improved reliability.

By contrast, consumers show far greater price flexibility for non-essential services (e.g., telecommunications or entertainment subscriptions), underscoring electricity's unique status in household budgeting. These findings carry direct policy implications. Electricity pricing reforms should address perceived unfairness and lack of trust. In line with established recommendations for tariff reform, the evidence suggests more open communication strategies and capacity-building within utilities to address consumer concerns and sustain public support.

Keywords: household electricity prices; price sensitivity; willingness to pay; consumer behavior

Market Concentration and Measures of Industry Concentration in the Service of Effective Competition with Special Reference to the Telecommunications Market in BiH

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Abstract

The problem of mergers and market concentration, especially the appearance of cartels, is taking on ever-increasing proportions around the world, so the importance of antimonopoly bodies is growing. It is very important to define the concept of "market dominance", which is the ability of a company or group of companies to continuously maintain high prices, significantly above long-term average costs, without significantly reducing sales due to high prices. Industry is constantly developing and is affected by various influences that lead to an increase in market concentration, and on this basis the paper points out that it is necessary to constantly analyze and monitor the movement of concentration in the leading branches of an economy, with special attention to be paid to the basic elements of industrial concentration on the basis of which it is possible to easily understand numerous and complicated processes of the economy and business. Accordingly, the subject of research in this paper is market concentration and models for measuring industrial concentration in the service of effective competition. In order to investigate the problem and the subject of research, a hypothesis was set that the telecommunications market in Bosnia and Herzegovina is highly concentrated. The following methods and techniques of scientific research were used in the paper: comparative method, inductive and deductive method, standard statistical methods, concentration indexes. Based on the achieved research results, it was concluded that the telecommunications market in Bosnia and Herzegovina is highly concentrated.

Keywords: industrial organization; market concentration; oligopoly; cartel; concentration indexes

Examining the Attitudes of the Academic Community Towards the Concept of National Competitiveness with a Focus on the Situation in Bosnia and Herzegovina

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Abstract

The concept of national competitiveness has been a subject of academic debate for more than seventy years. While some view it as a “dangerous obsession” (Krugman, 1994), many others consider it the most significant—typically synthetic—indicator of a country's economic condition. The lack of consensus regarding the meaning of national competitiveness is reflected in the divergent understandings of indicators used to measure competitiveness, as well as the “pillars” (i.e., key drivers of national competitiveness), ultimately resulting in differing—and at times contradictory—assessments of which countries are genuinely competitive.

The primary objective of this research was to examine the perceptions of the domestic academic community regarding the meaning of the concept of national competitiveness, as well as the position of Bosnia and Herzegovina in terms of competitiveness within both the regional and global contexts.

The findings indicate that a majority of domestic academics share Porter's (1990) view that productivity is the most accurate measure of national competitiveness, followed by the growth rate of GDP, the state of the trade balance, and the employment rate.

With regard to the key factors influencing the level of national competitiveness, most respondents identified education as the most important, followed by innovation and the free movement of capital. Interestingly, at the bottom of the list of influencing factors were meritocratic institutions, macroeconomic stability, and comprehensive healthcare coverage.

According to most respondents, the world's most competitive economy is China, followed by five G7 countries (the United States, Germany, Japan, the United Kingdom, and France).

Within the regional context, Slovenia is perceived as the most competitive economy, followed—at a noticeable distance—by Croatia and Hungary. Bosnia and Herzegovina was ranked eighth out of ten observed countries, ahead only of Montenegro and North Macedonia.

Regarding measures to improve the competitiveness of Bosnia and Herzegovina's economy, the most important were identified as increased investment in research and development, higher spending on education, and further digitalization.

Keywords: national competitiveness; pillars of national competitiveness; Western Balkan countries; world's most competitive economies

JEL Classification: E6, F0, O4

A Comparative Analysis of E-Commerce Development in Bosnia and Herzegovina and Regional Countries

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Abstract

The growth of e-commerce in the Western Balkans reveals significant regional disparities, underscoring the need to examine the factors influencing the digital economy.

This paper presents a comparative analysis of e-commerce development in Bosnia and Herzegovina, situating it in relation to other countries in the region, including Serbia, Croatia, and Montenegro. The aim of the study is to identify key drivers and barriers to growth, as well as to assess Bosnia and Herzegovina's competitive position through an analysis of digital infrastructure, mobile commerce penetration, the number of active online stores, and innovation capacity.

The methodological approach is based on the analysis of secondary data obtained from relevant sources and academic literature. The findings indicate a stable but slow growth of e-commerce in Bosnia and Herzegovina compared to Serbia and Croatia, primarily due to challenges such as a lower level of digital literacy and limited trust in electronic payments. On the other hand, significant potential lies in the high share of mobile commerce and the increasing number of e-shops.

The study concludes that a more dynamic development of e-commerce in Bosnia and Herzegovina requires a comprehensive strategic approach that includes improvements to the logistical and regulatory framework.

Keywords: e-commerce; Bosnia and Herzegovina; Western Balkans; digital transformation; mobile commerce; innovation.

What Moves Health Insurance in Bosnia and Herzegovina? An ARDL Health Insurance Premiums Study

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Abstract

This study examines how macroeconomic conditions and demographic change shape the high-frequency dynamics of Bosnia and Herzegovina's health insurance market. The focus is on quarterly premium flows for health lines. The empirical design combines quarterly health insurance premium flows, along with macroeconomic and demographic factors, which, according to the literature, shape insurance and its premium flows. Annual variables are disaggregated to quarterly frequency using the Chow-Lin disaggregation method; Denton-Cholette is used as a robustness alternative, where no adequate driver is found. After stationarity diagnostics, and dimensionality reduction through principal component analysis, the Autoregressive Distributed Lag (ARDL) bounds-testing approach to cointegration with an associated error-correction form is employed, to quantify the long- and short-run links between premiums/claims and macro-demographic drivers. Data on quarterly premiums are compiled from national insurance market reports, while other variables are taken from aggregated data banks, comprising datasets created by the International Monetary Fund, World Bank, and World Health Organization. The observed data range is from 2011 to 2023. The study is implemented at the national level with a goal of providing a compact, data-driven assessment of how growth, inflation, and population factors move together with health insurance flows in Bosnia and Herzegovina.

Keywords: Bosnia and Herzegovina; health insurance; ARDL bounds cointegration testing; PCA; macroeconomic and fiscal factors; demographic factors

JEL: C32, C38, I13, H51, O52

Labour Market Transformations and Duality in Central and Southeastern Europe: A Comparative Factor Analysis

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Abstract

This study presents a comparative analysis of labour market transformations in twelve Central and Southeastern European countries: Albania, Bosnia and Herzegovina, Serbia, North Macedonia, Bulgaria, Romania, Croatia, Slovenia, Slovakia, Poland, Hungary and the Czech Republic, over the period 1993 to 2024. It examines structural shifts stemming from the transition from centrally planned to market economies, marked by output declines, enterprise closures and significant job losses, particularly among mid-career workers. Although private sector expansion created new jobs, it was insufficient to offset persistently high and often long-term unemployment.

The study applies the theoretical framework of labour market duality to assess segmentation between primary and secondary markets, the prevalence of vulnerable employment and the interaction between formal and informal sectors. Legacies of the socialist period, including rigid labour legislation, high employment protection and skill mismatches, have constrained market efficiency and mobility. Methodologically, the research combines descriptive statistics with econometric modelling, including factor analysis, to identify key indicators shaping labour market performance and to detect latent structural patterns across countries.

Sectoral disparities are pronounced in agriculture, which remains a major employer in parts of Southeastern Europe despite low productivity and limited technological development. The largest performance gaps are observed between Western Balkan economies, particularly Albania, Bosnia and Herzegovina, Serbia and North Macedonia, and more advanced EU members such as Slovenia, Slovakia, the Czech Republic and Poland. These gaps are most visible in employment rates, labour force participation, youth unemployment and the prevalence of long-term unemployment, reflecting persistent structural mismatches, lower productivity and weaker institutional capacity.

Keywords: informal economy; informal employment; grey economy; Electricity Consumption Method (ECM); labor market; self-employment; gender gap; comparative analysis; Western Balkans; formalization policies; economic growth; productivity.

Determinants of Informal Employment in Central and Southeastern European Countries

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Abstract

This study examines the determinants of informal employment in eleven developing economies from Central and Southeastern Europe. Employing panel regression techniques, the research examines the influence of self-employment, statutory minimum wage, labor freedom, tax burden, unemployment, GDP per capita, and the rule of law on the prevalence of informal employment. Diagnostic testing identifies the fixed-effects model as the most appropriate specification, ensuring the robustness of the results. The empirical findings reveal several consistent regional patterns. Self-employment emerges as a principal driver of informality, suggesting that a substantial share of non-wage labor activity occurs outside formal institutional frameworks. Statutory minimum wages exert a negative effect on informal employment, consistent with the “lighthouse effect,” wherein formal wage floors indirectly influence wages in the informal sector. Both the tax burden and the labor freedom index are positively associated with informality, indicating that excessive fiscal pressure and overly flexible labor market regulations may incentivize participation in informal economic activities. In contrast, higher GDP per capita and stronger adherence to the rule of law are found to significantly reduce informality, underscoring the role of economic development and institutional quality in fostering formal labor market participation. The comparative perspective demonstrates that, while structural drivers of informality are broadly shared across countries, the magnitude and direction of their effects vary depending on institutional and socio-economic contexts. The results highlight the necessity of integrated policy approaches that balance economic growth, equitable wage policies, tax system optimization, and institutional strengthening. Such coordinated measures are essential for reducing informality, enhancing labor market resilience, and promoting sustainable and inclusive economic development across the region.

Keywords: informal employment; labor market; determinants; Central and Southeastern Europe; North Macedonia

Informal Economy and Employment in North Macedonia: Trends and Comparative Perspectives

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Abstract

This study examines the size and dynamics of the informal economy and informal employment in the Republic of North Macedonia, comparing them with trends in selected countries of Central and Southeastern Europe. Accurate measurement of informality is essential for designing effective policies to reduce undeclared activities, strengthen fiscal revenues, and enhance the formal labor market. The research applies both direct and indirect methods, with the Electricity Consumption Method (ECM) serving as the primary tool for estimating the informal economy. Findings indicate that informal activities remain a substantial component of the economy, showing a gradual decline until 2019, followed by a temporary increase during the COVID-19 pandemic. In 2021, informal employment accounted for 14% of total employment, down from 22% in 2017, with the highest concentrations in agriculture, construction, and personal services. Marked gender and age disparities are evident: men represent about two-thirds of informal workers, while youth (15–24) and older workers (65+) are more likely to be engaged in informal employment. Workers with only primary education are disproportionately represented in the informal labor market. Comparative analysis shows that Western Balkan countries, particularly Albania, record significantly higher informality rates than EU member states such as Croatia, Bulgaria, and Slovenia. The results highlight structural and socio-economic drivers, including high self-employment, sectoral vulnerabilities, and limited social protection. Addressing these challenges through formalization incentives, skills development, and stronger labor regulations could reduce informality and support inclusive economic growth, productivity, and social cohesion.

Keywords: informal economy; informal employment; grey economy; Electricity Consumption Method (ECM); labor market; self-employment; gender gap; comparative analysis; Western Balkans; formalization policies; economic growth; productivity.

The Correlation Between the Type of Entrepreneurial Activity and the Level of Economic Development – Preliminary Empirical Analysis in Selected Counties

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Abstract

Recently, a new direction of research on the connection between entrepreneurial activity and economic development has emerged. In the scientific literature that deals with the subject matter, there is a great variety of variables that express the level of entrepreneurial activity. The mentioned diversity is the result of differences in the interpretation of entrepreneurship. The research results vary depending on how entrepreneurship is interpreted, whether as a way of behaving, a business registration process, or a productive activity. This paper aims to: (a) present, in a systematic way, indicators that can be employed as direct or indirect measures of the level of entrepreneurship and (b) examine the level of their correlation with the level of economic development of the country. For the purpose of the mentioned analysis we used the Global Entrepreneurship Monitor (GEM) 2024 data relevant and comparable for 47 selected countries. The results of our preliminary research indicate that economic development has a statistically significant positive correlation with internationally oriented entrepreneurs, while showing a statistically significant negative correlation with new businesses. Based on the obtained results, the conclusion is that there cannot be a general assessment of the correlation between entrepreneurship and level of economic development. Instead, it is necessary to consider the fact that entrepreneurship is a complex phenomenon. When analysing its correlation with macroeconomic performance, one should take into account some of its specificities (which are expressed and measured by different indicators). Additionally, our findings indicate that internationally oriented entrepreneurship is more prevalent in more developed countries.

Keywords: entrepreneurship indicators; economic development; new businesses; international businesses

Exploring the Ethical Role of Artificial Intelligence in Tourism: A Focus on User Preferences

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Abstract

In the era of accelerating digital transformation, artificial intelligence (AI) has become an indispensable tool in strategic decision-making, supporting organizations in achieving sustainability while upholding ethical standards. Within the tourism sector, this transformation raises complex challenges related to user security, privacy, and trust, as well as broader principles of accountability, transparency, and fairness. These dimensions form the fundamental pillars of long-term tourism sustainability and represent key priorities for all stakeholders. This study provides clear definitions of essential ethical principles—security, data protection, and trust—emphasizing both their interconnections and their distinct characteristics. The discussion is broadened to address the irreversible nature of this digital trend. Special attention is given to how AI technologies influence these principles, alongside the critical need for education, training, regulatory, and legal frameworks to ensure their protection. Furthermore, the paper argues that responsible and explainable AI must be inclusive and socially responsible, not only in tourism but also in other sectors, such as banking, where transparency and fairness are of crucial importance. Finally, the paper outlines directions for future research, with particular emphasis on ethical challenges such as bias, inaccuracy, and the demand for algorithmic explainability—underscoring the need to create fair and sustainable digital ecosystems.

Keywords: Artificial Intelligence, Tourism, Ethics, Security, Privacy, Trust, Sustainability, Transparency, Accountability, Fairness.

Measuring Economic Resilience: A Simple Composite Indicator for the Western Balkans

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Abstract

This paper reviews the concept, drivers and measurement of economic resilience, highlighting its multidimensional nature and the challenges of operationalization. Resilience is a multidimensional concept and is hard to measure. The concept originates from other fields, including engineering, ecology, and health. This concept has recently garnered attention in economics in comparison with other fields. Drawing on a broad body of literature, we critically assess existing frameworks, ranging from macroeconomic stability indicators to structural and institutional approaches. Using descriptive statistics from six Western Balkans economies (Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, and UNMIK Kosovo*), we illustrate key vulnerabilities and adaptive capacities in the region. For that purpose, we build up a simple composite indicator to empirically assess the temporal evolution of economic resilience in Western Balkan economies.

The classical approach to building up a composite index is to use an unsupervised machine learning technique: the principal component analysis (PCA). In our current analysis, we impose equal weights to each resilience dimensions. Our results show that while all countries have become more resilient to economic, social, and political shocks, the pace of improvement has varied, leading to a growing performance gap between the top and bottom countries in the region. In particular, Montenegro and Serbia are presented as the regional leaders in building resilience, while UNMIK Kosovo* faces the greatest challenges in the region.

Future research should also address the nature of economic data employed in the current study. In particular, the use of multi-way PCA analysis, where we have three dimensions: countries, years, and indicators. Standard PCA approach only deals with cross sectional data. There is no chance to build up a composite indicator that evolves over time and different across space units. Finally, this paper aims to provide both diagnostic insights for policymakers and a comparative tool across countries in how they can respond to external shocks.

Keywords: economic resilience, shocks, composite indicator, Western Balkans

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The Application of Renewable Energy Sources in the Oil Industry: A Path Towards Sustainable Development and Improved Business Efficiency

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Abstract

The energy transition represents an inevitable technological advancement, posing significant challenges for the oil industry. This paper analyzes the challenges and opportunities faced by the oil sector within the context of the global energy transition and the principles of sustainable development. The research is based on the assumption that, due to the depletion of fossil fuels and increasing environmental pressures, the oil industry must undergo transformation to ensure long-term economic sustainability. By examining key concepts such as the green economy and sustainable development, the paper explores the impact of international regulatory frameworks, including the CBAM mechanism, on business operations. It provides a detailed assessment of the economic justification and environmental benefits of integrating renewable energy sources into the business models of oil companies. The practical implementation of solar energy and other renewable sources is considered a strategic imperative for reducing operational costs and enhancing competitiveness. It was analyzed how the existing infrastructure of the oil company can be used in the area of Bosnia and Herzegovina and Republic of Srpska to diversify its business model. The transformation from traditional oil companies into modern energy enterprises is presented not only as an environmental obligation but also as a key economic strategy for achieving efficiency and profitability.

Keywords: oil industry; renewable energy sources; sustainable development; alternative fuels; sustainability.

Household Finance and Well-being in the Balkans

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Abstract

Household finance is central to economic stability and individual well-being, yet remains relatively underexplored in the Balkan countries. This paper draws on the most recent Global Findex 2025 data to investigate key dimensions of financial stress, financial resilience, saving, and borrowing across the region. We establish country-level rankings of financial well-being and behaviors, and benchmark Balkan households against the averages for Europe and Central Asia (ECA), the European Union (EU), and global levels. The analysis highlights the particular challenges faced by households in the Balkans, which often operate under conditions of economic volatility, institutional transformation, and limited financial inclusion. By documenting both vulnerabilities and strengths, the paper provides new insights into how financial stress and resilience shape household decision-making. The findings inform policy aimed at strengthening household finance through improved access to financial services, financial education, and institutional support, thereby enhancing well-being and fostering sustainable development in the region.

The Impact of Crisis Management on Sustainable Operations in the Healthcare Sector: Evidence from the Republic of Srpska

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Abstract

The COVID-19 pandemic has exposed the structural vulnerabilities of national economies and public service systems, especially in the healthcare sector. As economic activity contracted and state budgets came under pressure, healthcare institutions—traditionally non-profit and service-oriented—were forced to adopt management strategies more commonly seen in the private sector. This paper explores the role of crisis management in ensuring the sustainable operation of healthcare institutions during periods of economic and systemic disruption. Focusing on the University Clinical Center of the Republic of Srpska, this study provides a detailed empirical analysis covering the period from 2017 to 2022. The research involves a comprehensive examination of financial statements, independent audit reports, and over 2,000 financial, asset, and performance indicators. The findings demonstrate the extent to which crisis management measures contributed to maintaining operational continuity, financial stability, and institutional efficiency during and after the pandemic. The paper argues that effective crisis management—when integrated into strategic planning—can act as a key driver of long-term sustainability in the healthcare sector. It also presents a multifactor model for cost management in crisis situations, offering practical implications for policymakers and healthcare administrators. The study contributes to the broader economic discourse on resilience in public sector institutions and the evolving role of non-profit management in times of crisis.

Keywords: Crisis Management, Healthcare, Sustainability, Public Economics

Code of Ethics as the Basis of Security and Development in the Region

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Abstract

In contemporary societies marked by political, economic and security challenges, the issue of ethics is becoming crucial for sustainable stability and development. This paper explores the role of the code of ethics as a fundamental prerequisite for strengthening security and fostering development in the Western Balkans region. The focus is on the analysis of how systematically established ethical standards in the public, business and educational sectors can contribute to reducing corruption, strengthening institutions and building citizens trust in social processes. Starting from the definition and purpose of the code of ethics, the paper analyzes its practical application in public institutions and its contribution to security policies. Special emphasis is placed on the connection between ethical culture and the development potential of communities - through improving the business environment, increasing investment attractiveness and strengthening social cohesion. A comparative analysis of European and regional examples of good practice identifies key elements for the successful implementation of ethical norms. In conclusion, the paper offers recommendations for improving institutional infrastructure, training staff and developing common regional ethical standards. The aim of the paper is to stimulate interdisciplinary dialogue on ethics as a long-term strategic investment in the stability and progress of the region. In this context, a code of ethics is viewed not as a formal document, but as a dynamic tool for building a more just, secure and prosperous society.

Keywords: code of ethics, institutions, trust, development, security

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