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# DEMAND FOR AND CONSUMPTION OF INSURANCE – A COMPREHENSIVE REVIEW OF THE EMPIRICAL LITERATURE

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## ABSTRACT

Insurance industry development is critical to countries' growth given the many functions it serves, from risk transfer, to indemnification, protection of investments, support to other sectors of the financial system, innovation and finally, the direct impact on economic development. Given the rich literature on the determinants of insurance demand, and the increased interest in the contemporary dynamics of international financial markets, the need arises for an in-depth analysis of the empirical literature on insurance demand and consumption. This study aims to examine, analyze, contrast, compare and finally draw conclusions on the main groups of factors that shape insurance demand. Then, the study aims to bring to light the main variables which individually-speaking seem to support or impede the growth of the insurance industry. Thirdly, we aim to shed light on those factors which are characterized by ambiguity regarding their impact on insurance consumption. Moreover, the main proxies of insurance consumption are discussed and explained. To achieve the purpose of this study, we gather a total of more than 25 scholarly articles, from the domestic literature, the region and beyond which are afterwards contrasted and compared against one another. It seems that there are three indicators which are mainly used by authors to capture the insurance market development, hence consumption: gross written premium volume, insurance density and insurance penetration. On the other hand, as far as the independent variables are concerned, the relevant factors can be divided into three groups: economic, regulatory and demographic. The economic factors (trade, income, inflation and financial development) show increased relevance in the case of developed countries, while regulatory factors (control of corruption, regulatory quality and rule of law) seem to shape to the greatest extent insurance consumption in developing and transition economies. This study adds to the literature by providing a thorough, up-to-date review focusing on an industry which is currently evolving at rapid rates on a global scale.

## KEYWORDS

Insurance consumption, Penetration, Density, Determinants.

## JEL CLASSIFICATION CODES

G22

# **BALKANS' NAVIGATION TOWARDS FINANCIAL DEVELOPMENT GOAL – AN EMPIRICAL ANALYSIS AMIDST CONTEMPORARY DYNAMICS**

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## **ABSTRACT**

Financial development is an enabler of progress which affects several dimensions of a country's economy, international trade, foreign investments, business transactions, formalization of the economy and more. As innovation, digitalization, automation and AI pose new challenges and opportunities for the financial system's economic actors, it becomes necessary to empirically analyze the pool of factors that can be used to guide reforms and future policy decisions. Balkan countries make up a dynamic, strategically-located group of economies which are currently attempting to further open up with Europe and the rest of the world by undertaking a series of reforms which are reshaping the economic, regulatory, and financial landscape. Financial development constitutes an integral part of such reforms, hence the numerous projects, regional ministerials and high-profile meetings which have recently been a focal point of media coverage and more. That said, this study aims to investigate the fundamental factors for financial development by building on 22 years of secondary data retrieved for a sample of 8 Balkan countries (Albania, Bosnia & Hercegovina, Bulgaria, Greece, Croatia, Republic of North Macedonia, Romania and Serbia). Data on the dependent variable, financial development index, were obtained from the International Monetary Fund, while data on the regressors were obtained from World Bank Database. A wide pool of relevant factors was used to evaluate the impact on financial development of each factor individually-speaking, and in conjunction with the others. To achieve this study purpose, 10 independent variables were selected: trade, natural resources, education, income, FDI, control of corruption, rule of law, ATMs, mobile and internet usage. The panel data analysis allowed to uncover that FDI, education, natural resources, and income are critical determinants of financial development which require utmost focus and prudence in policy management. While income, as captured by GDP per capita, and FDI seem to support further financial development, due diligence is needed in the way in which natural resources and financial literacy is managed. Given the current dynamics, this study provides valuable insights that might provide the necessary guidance to financial institutions, policy makers, and other stakeholders.

## **KEYWORDS**

Financial development, FDI, Natural Resources, Balkans, Panel Data.

## **JEL CLASSIFICATION CODES**

C23, G15, G28, P28

# **BIBLIOMETRIC ANALYSIS OF THE MUSIC ONTOLOGIES**

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## **ABSTRACT**

Bibliometric analysis focuses on the statistical study of publications related to a specific field of knowledge. This approach is used to extract information based on selected parameters, such as scientific journals, academic institutions, countries and authors. It is a valuable tool for the quantitative evaluation and study of the scientific literature that has been published. Bibliometric analyses have particular weight, as they yield important conclusions about the trend of research projects. This paper focuses on the bibliometric analysis of the topic of music ontologies. The purpose of the paper is to capture and analyze the dominant research trends in the above topic through bibliometric study. It classifies the material according to various criteria, such as authors, scientific journals, research institutions or geographical location. The study attempts to capture the dominant research trends in the two fields of ontology and music and their evolution over time. It includes the analysis of scientific literature in the field of modeling and music teaching techniques through ontologies. This analysis of the topic of music ontologies used articles from the scientific database Scopus. It contains results from over 23,000 scientific journals, conference proceedings and books. Scopus tracks citations, recording the references made to publications. In addition, it has a higher academic level than other databases, emphasizing selected scientific journals. The conclusions that arise from the analysis are very useful in order to determine the dominant research trends in this field.

## **KEYWORDS**

Ontology, Music, Bibliometric Analysis.

## **JEL CLASSIFICATION CODES**

O32, C55

# HOW TO INTEGRATE SOCIAL AND ENVIRONMENTAL PRIORITIES INTO TECHNOLOGICAL INNOVATION?

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## ABSTRACT

This paper provides a comprehensive theoretical analysis, drawing extensively on prior research, to examine the transition to Industry 5.0 (5IR) and its potential to integrate environmental and social concerns into the technological revolution. Building upon a foundation of literature from Industry 4.0, the study delves into the evolving concept of 5IR, which emphasizes the convergence of advanced technologies—such as robotics, artificial intelligence, and the Internet of Things—with broader societal and environmental goals. The chapter addresses a critical question: how can technological innovation foster a balanced and synergistic relationship between industry, society, and the environment? By reviewing existing research, this analysis identifies both challenges and opportunities for achieving this integration. The findings highlight the importance of reorienting industrial priorities beyond economic and technological objectives to include essential social and environmental dimensions. This exploration contributes to the broader discourse on sustainable industrial innovation, offering insights into how future technological advancements can drive a more inclusive and responsible form of progress.

# **BIBLIOMETRIC ANALYSIS: THE ENVIRONMENTAL PERFORMANCE OF THE ORGANIZATION AND THE GREEN BEHAVIOR OF EMPLOYEES**

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## **ABSTRACT**

Globalization, the increasing size of companies, climate change and the negative impact of production and consumption patterns on the natural environment have prompted economic organizations to fundamentally rethink their responsibilities towards their stakeholders. These developments have led companies to new rules of conduct that go beyond the principle of maximizing shareholders value. Green human resource is an element of company's green growth, where all HR-related processes incorporate practices related to environmental protection. In this context, the main objective of human resources management is to build and develop the ecological sensitivity of employees, to create a friendly working environment and to create an ecologically responsible attitudes among employees which will then - as an operating model - be applied by each employee beyond the workplace. This article contains the results of a bibliometric analysis of references and literature correlations in order to conduct a detailed, systematic analysis of the literature on the role of human resource management in shaping green behavior and green consciousness of employees and the environmental performance of an organization. The results of this analysis led to the identification of a sample of 105 publications. Their initial selection from the Scopus database and their processing using the VOSviewer algorithm, Bibliometrix and then content analysis led to the establishment of key distinct areas of research and the identification of directions for future research. The results of the bibliometric analysis show a growing interest in green HRM and environmental performance, with a significant increase in publications between 2009 and 2024. Six key thematic areas were identified, including environmental management, sustainable development and innovative practices. The data highlights the importance of collaboration between authors and institutions, with a high proportion of international collaborations in publications. Green employee behavior emerges as a central factor in improving the environmental performance of organizations. Keyword analysis demonstrates the increasing importance of terms such as "green behavior" and "green consciousness" in the relevant literature. The thematic clusters reveal the need to shape responsible attitudes and actions through educational initiatives and organizational culture, highlighting prospects for further research.

## **KEYWORDS**

Human Resource Management Green Behavior, Green Consciousness, Environmental Performance, Bibliometric Analysis Scopus, VOSviewer, Bibliometric

# **INVESTIGATING WELL-BEING TOURISM BASED ON THE GENERAL SYSTEMS THEORY: THE CASE OF GREECE**

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## **ABSTRACT**

The critical role of the development of quality infrastructure in achieving the Sustainable Development Goals (SDGs), as defined in the United Nations 2030 Agenda, is nowadays widely accepted. Sustainable infrastructure can assist both governments and private businesses worldwide to deliver essential services, contributing not only to more desirable individual livelihoods but also to broader economic growth. Whenever public resources are insufficient to finance large infrastructure projects, the contribution of private capital markets is usually called upon. Nonetheless, the “high-risk” environment of major infrastructure investments, which may be due to the often-complex licensing procedures and delays in the production of the physical object, but mainly due to the long time required until the completed fixed assets generate the required rates of return, may discourage the involvement of private investors. The main objective of this research is to develop an integrated generic mathematical model for quantitatively assessing risk in the evaluation of the financial viability of transport infrastructure projects procured by Public-Private Partnerships (PPPs). The introduced practical model is constructed and validated in a spreadsheet and its robustness is verified through a numerical application to a typical remunerative toll road project. The herein proposed methodology aims at contributing to the existing literature and practice of sustainable economic development policy by assisting all stakeholders involved throughout the process of more effective decision-making in the selection of large social infrastructure projects.

## **KEYWORDS**

Sustainable Development, Transport Infrastructure, Public-Private Partnership, Risk, Monte Carlo Simulation.

## **JEL CLASSIFICATION CODES**

O180, R420, C630

# **DEVELOPMENT OF AN INTEGRATED GENERIC MODEL FOR QUANTITATIVE RISK ASSESSMENT OF THE FINANCIAL**

# VIABILITY OF PPP TRANSPORT INFRASTRUCTURE INVESTMENTS

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## ABSTRACT

The critical role of the development of quality infrastructure in achieving the Sustainable Development Goals (SDGs), as defined in the United Nations 2030 Agenda, is nowadays widely accepted. Sustainable infrastructure can assist both governments and private businesses worldwide to deliver essential services, contributing not only to more desirable individual livelihoods but also to broader economic growth. Whenever public resources are insufficient to finance large infrastructure projects, the contribution of private capital markets is usually called upon. Nonetheless, the “high-risk” environment of major infrastructure investments, which may be due to the often-complex licensing procedures and delays in the production of the physical object, but mainly due to the long time required until the completed fixed assets generate the required rates of return, may discourage the involvement of private investors. The main objective of this research is to develop an integrated generic mathematical model for quantitatively assessing risk in the evaluation of the financial viability of transport infrastructure projects procured by Public-Private Partnerships (PPPs). The introduced practical model is constructed and validated in a spreadsheet and its robustness is verified through a numerical application to a typical remunerative toll road project. The herein proposed methodology aims at contributing to the existing literature and practice of sustainable economic development policy by assisting all stakeholders involved throughout the process of more effective decision-making in the selection of large social infrastructure projects.

## KEYWORDS

Sustainable Development, Transport Infrastructure, Public-Private Partnership, Risk Monte Carlo Simulation.

## JEL CLASSIFICATION CODES

O180, R420, C630.

# EXPLORING CHATGPT'S ROLE IN ENHANCING DECISION-MAKING AMONG STUDENTS FROM THE LENSES OF COGNITIVE BIASES

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## ABSTRACT

Using AI tools like ChatGPT presents unique challenges, requiring users to apply soft skills such as critical thinking to evaluate the quality and reliability of responses. However, the ready-made and easily accessible nature of AI-generated answers can overshadow these skills, potentially fostering reliance on convenience over critical engagement. This paper investigates how students utilise AI Tools such as ChatGPT for decision-making and the associated cognitive and behavioural effects. The methodology for this study was based on a structured questionnaire designed to explore students' interactions with AI tools (ChatGPT), focusing on their usage patterns, heuristics and decision-making behaviours. It included demographic questions like age, gender, and study field. Likert-scale items measure usage frequency, anchoring, framing effect, and other cognitive biases. The sample comprised 125 students from various academic disciplines with diverse educational and professional backgrounds. The collected data were analysed using descriptive statistics and inferential methods to identify key cognitive biases influencing students' perceptions and behaviours toward ChatGPT. The findings show distinct patterns in students' usage and perceptions of ChatGPT, shaped by cognitive biases. 28.1% of students reported frequent usage daily and 31.4% weekly, with 29.8% primarily utilising ChatGPT for learning and study purposes. Regarding reliability and decision-making, 42.1% strongly agreed that ChatGPT improves decision quality after several prompts, and 43.8% rated its information as reliable. However, trust bias and overconfidence bias may explain this overestimation of its accuracy, coupled with moderate verification efforts by 53.8% of respondents. Confirmation bias emerged in 46.7% of students finding answers aligned with their beliefs, while 61.9% constructively adjusted their views when encountering contradictions, reflecting efforts to manage cognitive dissonance. The anchoring effect was evident in 32.2% of students relying on the first answer provided and 35.5% reporting it influenced their perception of subsequent responses. Finally, 39.0% of students frequently rephrased questions, and 81.0% perceived consistency in ChatGPT's responses despite such rephrasing. These findings highlight the need to address cognitive biases to foster critical engagement with AI tools. These findings highlight the need to address cognitive biases to foster critical engagement with AI tools. These findings highlight the importance of incorporating training programs to teach users, particularly students, how to engage critically with AI tools like ChatGPT. The rapid and widespread adoption of such technologies risks fostering over-reliance on ready-made answers, which may diminish users' power and agency in creating their knowledge. In collective societies, authority bias—where individuals disproportionately trust and accept information from perceived authority figures or tools—can further deteriorate individual agency, limiting users' ability to filter critically and evaluate the quality of responses from AI tools. Future studies should explore the risks of dependence on AI tools as the sole source of decision-making and knowledge generation, particularly in contexts where authority bias is prevalent. Additionally, research should investigate which heuristics and cognitive biases are most affected, including strategies to counteract the filter bubble effect and promote critical thinking and AI literacy.

## KEYWORDS

AI Tools, Cognitive Biases, Critical Thinking, AI Skills

## JEL CLASSIFICATION CODES

O33, D91, L86

# IMPROVING BARIATRIC PATIENT CARE: A MULTIDISCIPLINARY APPROACH AND THE ROLE OF PATIENT-REPORTED EXPERIENCE MEASURES (PREMS)

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## ABSTRACT

The care of bariatric patients poses unique challenges due to their complex clinical and psychosocial needs. These patients often require constant reassurance and personalized attention, yet they report high levels of dissatisfaction with their care. Recognizing these challenges, we implemented a multidisciplinary intervention to address the identified gaps and improve service quality. A key focus of the initiative was the use of Patient-Reported Experience Measures (PREMs) to monitor and tailor services effectively. The intervention targeted nine nurses working within a bariatric surgery unit, combining theoretical and practical training. Educational sessions, led by a psychologist specialized in bariatric care, explored common psychological traits of bariatric patients and the impact of stigma on their emotional and physical well-being. Role-playing exercises simulated real-life scenarios, enhancing the nurses' ability to communicate empathetically and address patient concerns. Two follow-up sessions (30 minutes each) with the program coordinator and key staff were conducted to evaluate the application of newly acquired skills, identify persistent challenges, and refine strategies. In 2024, 338 PREM responses were collected from a total of 1,139 discharges in the bariatric surgery unit, with 271 discharges specifically related to bariatric patients. Historical data revealed that bariatric patients consistently reported lower satisfaction levels, particularly concerning their emotional and psychological support. The intervention was designed to address these critical gaps, focusing on improving nurse-patient communication and ensuring multidisciplinary collaboration with significant involvement from psychological professionals. PREMs served as the cornerstone of this initiative, offering valuable insights into patient experiences and enabling the customization of care pathways. Preliminary results highlighted an improvement in the quality of interactions between nurses and patients, greater patient satisfaction, and a better understanding among staff of the unique challenges faced by bariatric patients. This initiative demonstrates the pivotal role of multidisciplinary approaches and the integration of PREMs in enhancing healthcare delivery. By identifying and addressing areas of dissatisfaction, the program aligns organizational efforts with patient needs, promoting a more inclusive and empathetic healthcare environment. It underscores the importance of psychological support and personalized communication as essential components of high-quality care for bariatric patients.

## KEYWORDS

Bariatric Care, Multidisciplinary Training, Patient-reported Experience Measures, Stigma, Nurse-patient Communication

## JEL CLASSIFICATION CODES

I0, M3

# **THE STRUCTURE OF THE FOOD, DRINK, AND TOBACCO MARKET AND ITS ADAPTION TO EU ACCESSION: A COMPARATIVE STUDY IN THE WESTERN BALKANS**

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## **ABSTRACT**

The main objective of this paper is to investigate the market dynamics for food, beverage, and tobacco in the Western Balkan nations and to identify all the initiatives taken by regional businesses to comply with EU accession regulations. Additionally, the effect that the firm would experience from the application of EU membership legislation is being studied. The impact of COVID-19, the conflict between Russia and Ukraine, and the first empirical research of the food, beverage, and cigarette markets in the Western Balkans are further distinctive contributions of this study. In addition, this study aims to determine whether regional food, drink, and tobacco industries can comply with EU laws and regulations. Using the T-test, and ANOVA test, a survey of the region from the food, drink, and tobacco market was conducted for research purposes to understand the significance that these companies place on product quality policies in the relevant industries, gauge the level of supervision and advancement they intend to achieve shortly and pinpoint the variables that affect firm performance as well as some difficult situations that these companies have encountered. This paper makes a fresh contribution to previously conducted research in the food, drink, and tobacco markets. It does so by reflecting on the most recent advances in WBs addressing this industry. By examining the effectiveness of competition policy implementation, product quality, and its adaptability to the EU membership in the region, quantitative research will be used to close the gap in the market for food, drink, and tobacco products. We can conclude that all the businesses are aware of the EU adaptation laws and are working to comply with them. Furthermore, a sizable portion of them think that EU laws will help their businesses grow. Additionally, it has been observed that some businesses export to EU nations because they owe one or two EU legislation. The Western Balkans can adopt their laws and policies in the food, drink, and tobacco industries, particularly about product quality, by following the good practices of the EU member states. A helpful strategy for the food, drink, and tobacco market adaptation to the EU may be the obligatory product quality certification which will bring an increased number of exports and simplified actions and governmental financial help on EU laws implementation.

# **THE IMPACT OF REMOTE WORKING IN PROMOTING EMPLOYMENT: A CASE STUDY FOR ALBANIAN LABOR MARKET**

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## **ABSTRACT**

The global landscape of employment has experienced a significant transformation with the widespread adoption of remote working practices, adopted further by the COVID-19 pandemic. This study explores the complex relationships between remote work and employment in Albania to offer a solid understanding of the characteristics of this topic in this country. The study measures the utilization of remote working practices among Albanian companies and employees using a multidimensional analytical framework that combines quantitative and qualitative data gathered from a survey that was conducted via Google Forms. The study uses approaches such as descriptive statistics and non-parametric methods analyzed in SPSS, to take a clearer vision of the results. Drawing insights from empirical data collected through a comprehensive survey, this study offers specific insights into the Albanian context, filling a crucial gap in existing literature. Based on the tests conducted, the study concludes that remote working has a significant impact on employment in Albania. The independent variables increase, vulnerability, and future have statistically significant effects on employment, demonstrating their critical roles in shaping employment outcomes in a remote work context. In conclusion, the study reveals a positive perception of remote work's impact on overall employment and female employment in Albania, with high mean values and low standard deviations indicating consistent views across respondents. However, perceptions are less favorable and more varied regarding the impact on employment opportunities for individuals with disabilities and Roma communities, reflected in lower mean values and higher standard deviations. The strong consensus on the need for labor code adjustments highlights the importance of regulatory changes to support remote work. The Kruskal-Wallis tests indicate no significant differences in perceptions of the impact on employment across various levels of perceived benefits, future commonality, and overall impact, except for a significant difference across vulnerability groups. These findings suggest that while remote work is seen as beneficial for general employment growth and gender inclusivity, targeted efforts are needed to address the specific needs of vulnerable groups to achieve more inclusive employment outcomes.

## **KEYWORDS**

Remote Working, Employment, Labor Market, Non-Parametric Analysis, Albania Labor Market.

# **RENEWABLE ENERGY MARKET AND ITS ADOPTION TO THE EU ACCESSION: A COMPARATIVE STUDY FOR WESTERN BALKANS**

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## **ABSTRACT**

During the last two decades, the countries of the Western Balkans have been inspired to become members of the European Union. To be part of it a numerous set of rules, regulations, and standards should be fulfilled. Special attention is given to chapter 15 related to Energy. The paper aims to investigate in depth the structure of the renewable energy market in the countries of Western Balkans, analyze the changes made in the law by respective countries to fulfill the EU standards and support the latest annual reports prepared by the commission through empirical results and findings. The paper is based on the information retrieved from a distributed survey among companies. To analyze the data, descriptive and inferential statistics have been used. It was noted that companies think that the EU plays an important role in the development of the sector in the respective countries and only through competition can be built a modern market. Among all companies, it is found the high impact that government decisions have on the performance of the businesses. Through the results retrieved from the ANOVA test, it is confirmed that companies in Western Balkans can adopt the EU acquis. Based on the answers provided by the companies that represent the renewable energy market in all six countries of the Western Balkans it can be concluded that this type of market represents a perfect competitive market. It should be noted that all countries are fulfilling the requirements placed by the EU by making the appropriate changes in their respective countries. It can be seen that these countries are even shifting from the traditional hydropower energy which is not considered sustainable in the European acquis and going to solar and wind energy. In terms of investments, it can be seen that the majority of the companies are domestically owned but when it comes to big projects with a production capacity higher than 100 MW international funds and expertise are required. In terms of general perception, it was found that almost all companies consider the EU accession process as fundamental for the further development of the renewable energy sector in the region. Moreover, they all agree that due to the integration process, the governments of respective countries have developed a special set of rules and regulations that regulate the functioning of the sector. It should be considered that companies think that companies are more prone to adapting and being on track with European standards compared to the steps taken by their countries. A good statistic is that companies are in alignment with the results retrieved from the progress reports developed by the EU Commission that state that around 30 – 50% of the energy produced and consumed in the region comes from renewable sources. From the results gained from the ANOVA tests done to some questions, it was found that Western Balkans countries can adapt to the set of rules, regulations, and standards that are required by the EU Commission. An interesting result is that renewable energy and oil are not substitute goods for each other based on the fact that survey shows that companies do not consider it as a factor that may threaten or impact the performance of the businesses. This result reinforces the serious actions that governments around the world have taken to shift totally to renewable energy until 2050. On the other hand, all companies show a strong dependency on government policies and their schemes to impact energy prices.

## **KEYWORDS**

Renewable Energy Market, Competition, Western Balkans, EU Accession

# **REDUCING INEQUALITY: INTEGRATING SUSTAINABLE DEVELOPMENT WITH SOCIAL PROTECTION AND ECONOMIC POLICIES IN ALBANIA AND NORTH MACEDONIA**

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## **ABSTRACT**

Reducing inequality is one of the key goals of the United Nations Sustainable Development Goals (SDGs). SDG 10 specifically focuses on reducing inequalities in income, opportunities, and access to resources within and between countries. This integrative paper examines how social protection systems and economic policies can work together to address inequality in Albania and North Macedonia. It examines the current state of these systems, identifies challenges, and highlights opportunities for improvement. In addition, the paper discusses how these efforts align with European Union (EU) standards and frameworks. Using case studies and comparative analysis, it highlights the importance of cooperation, EU support, and targeted strategies to address the needs of vulnerable groups. Social protection systems and economic policies are essential tools for reducing inequality in Albania and North Macedonia. While both countries have made progress, significant challenges remain, including limited funding, institutional weaknesses, and socio-economic barriers. Alignment with EU standards and the use of regional and international support are key to overcoming these challenges. To achieve sustainable and inclusive development, Albania and North Macedonia must prioritize investments in social and economic protection policies. This requires a combination of domestic reforms, regional cooperation, and international support. Policymakers should focus on expanding coverage, improving targeting, and addressing the needs of vulnerable groups. Improved monitoring and evaluation mechanisms can ensure the effectiveness and sustainability of these initiatives.

## **KEYWORDS**

Sustainable Development, SDGs 10, Income Inequality, Integrative Study, Albania and North Macedonia.

# **INFLATION IN SOUTH-EASTERN EUROPE AND THE ELEPHANT IN THE ROOM**

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## **ABSTRACT**

Inflation has returned to Europe, even more after February 2022 and the war in Ukraine. With the US tariff measures as of April 2025 inflation outlook became even more uncertain. This paper provides a comparative analysis of inflation dynamics in Greece, Croatia and Serbia in the period from 2021 to present. The aim of the paper is to examine inflation from the perspective of monetary policy frameworks in selected countries. The paper revolves around energy inflation and food inflation, two important factors underpinning inflation dynamics in all three countries in recent years. The focus of the paper is on food inflation and different factors determining it, including the issue of profit margins set by large retail chains that dominate regional grocery markets. The methodology is quantitative and based on the analysis of data available in databases at the European Central Bank and the Eurostat. The finding is that if the current trends of geopoliticization continue, inflation pressures will not ease for some time, regardless of legal differences in monetary policy frameworks in all three countries.

## **KEYWORDS**

Inflation, Monetary Policy, Geopoliticization, South-eastern Europe

## **JEL CLASSIFICATION**

E31, E41, H30

# MENTAL ACCOUNTING RELATED TO TAXES. THE CASE OF GREECE.

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## ABSTRACT

In recent years, the concept of mental accounting has been widely used in literature to investigate its influence on decision-making processes related to savings, investment, debt and consumption and tax avoidance. The aim of this paper is to investigate the extent to which mental accounting influences individual tax avoidance. The term "mental accounting" refers to the psychological behavior whereby people compartmentalize money into mental accounts to screen tax-related income as self-derived or not. In order to investigate how mental accounting relates to tax avoidance Olsens's et al., (2019) questionnaire was used after adjusting items for Greek respondents in 2024. In this study, 103 participants took place (Male 53.4%, Female 46.6%) with mean age 37.22 years (SD = 9.352). The results showed that taxpayers are more likely to maintain a distinct mental account for VAT compared to income tax. Nonetheless, this effect is minor, and the differences were not significant. They differ in their mental accounting practices. Still, this result is not conclusive as not all aspects of mental accounting showed the same behavior. Mental accounting correlates with reduced impulsivity, enhanced attitudes towards practical taxation, and diminished financial scarcity and tax preparation correlates with elevated mental accounting, diminished attitudes towards taxes, enhanced financial literacy, and increased perceived administrative load.

## KEYWORDS

Mental Accounting, Taxes, Greece

## JEL CLASSIFICATION

M41, H26

# RELATIONSHIP AMONG TRADE IN SERVICES, FEMALE MIGRATION AND GENDER INCOME INEQUALITY: A LITERATURE REVIEW

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## ABSTRACT

Gender is still one of the main features which raise discrimination globally. It is more necessary than ever to be faced the gender discrimination given the importance of sustainable development goals which need to be achieved according to 2030 Agenda. Purpose of this study is the literature review of the main theoretical and empirical research for the relationship among trade in services, female migration and gender income inequality which are high intensive gendered and discriminated against variables. Trade in services is a quickly growing sector worldwide (trade in services is more growing than trade in goods), where are occupied statistically more women than men. Global migration flows of women are approximately equal to those of men having been intensified due to the expansion of globalization. Neef and Robilliard (2021) pointed out that the women labor income represented about 30% of global labor income in the early 1990s and 35% until 2021. One of the main conclusions is that there isn't research which investigates simultaneously the relationship among the three variables. Instead of this, the scientific literature has researched the variables in pairs. Although, there is an extent research about the relationship between goods trade and migration only the last years there are studies which search the relationship and connection between services trade and migration covering a small part of the existing gap in the economic literature analyzing a few versions of the mix of the female migration effects on trade services sector. The existing studies show that there is gender discrimination and migration positively affects services trade. Also, there aren't many studies in international scientific literature which have researched the effect of international trade in services on inequalities in income distribution. Most of the existing studies have focused on international trade in manufactured goods or trade as a whole (inducing both goods and services) and little research has been conducted on the impact of international trade in services on income inequality. The existing literature concludes that trade in services positively affects gender income inequality. Regarding the relationship between gender income inequality and female migration, the literature is divided into the positive and zero effect of female migration on gender income inequality. In addition, there is study which claims that the decrease of gender income inequality decreases the female migration.

## KEYWORDS

Services Trade, Female Migration, Gender Income Inequality

# **THE IMPACT OF THE COVID-19 CRISIS ON FINANCIAL PERFORMANCE: THE CASE OF FOOD AND BEVERAGE AND TOBACCO INDUSTRY IN GREECE**

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## **ABSTRACT**

The COVID-19 pandemic had caused serious economic problems worldwide. This study examines the financial performance of Greek firms during the initial phase of pandemic crisis. In particular we focus on the financial performance of Food, Beverage, and Tobacco (FBT) firms. The performance of FBT firms was compared with the performance of firms from other industries. We examine whether the listed firms performed better compared to the non-listed ones. Furthermore, we investigate the effectiveness of the policies adopted by policymakers (local and European) aiming to alleviate the consequences of the pandemic crisis. We analyzed the financial statements of 226 Greek companies for the period 2019-2021. Our findings indicate that sample firms' financial performance deteriorated in 2020 while the situation improved in 2021. We found that company's size, effective cash management, and equity funding enhance the firms' ability to face significant economic turbulences. The firm's sector classification is related to its performance with FBT appearing to be more resilient at the initial phase of the Covid-19 emergency. Firm's listing status does not appear to have a significant impact upon firm's performance. The findings of this study contribute to the body of the existing literature concerning businesses' response to the challenges set by the health crisis while it provides evidence regarding the effectiveness of adopted policies, helping state authorities to design and implement strategies of government aid in face of unanticipated economic turmoil.

## **KEYWORDS**

Covid-19, Financial Performance, Greece

## **JEL CLASSIFICATION**

M10, M4

# THE IMPACT OF POLITICAL MEDIA INVESTMENTS ON THE ROMANIAN ONLINE ADVERTISING MARKET

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## ABSTRACT

The transition of journalism from print to online has significantly impacted Romanian publishers and advertisers. This shift has increased the volume and speed of information dissemination but has also led to a substantial decline in revenue for media publishers. While Romanian newspapers and magazine have been quick to adopt Internet, financial stability remained elusive, leading to the closure of many print editions. Despite a growing online advertising market, local publishers face stiff competition for limited media investment, exacerbated by declining print circulation and fragmented advertising budgets. These economic strains have forced Romanian publishers to seek alternative funding sources, including public funding through online advertising contracts awarded by public institutions and political parties. This reliance has the potential to undermine editorial independence and lead to public distrust in the media.

This paper explores the micro-economic implications of these financial pressures on the Romanian online advertising market. It highlights their impact on the functioning of the free market and the acute need for new business models that prioritize accuracy, timeliness, and relevance to restore public trust and ensure sustainable operations. It underscores the urgency for Romanian publishers to find new business models that avoid external financial and political pressures, support editorial independence, and enhance the brand value of media institutions. The study calls for a reevaluation of the current media landscape and the development of sustainable strategies to ensure the long-term efficiency of the Romanian online advertising market

## KEYWORDS

Microeconomics, Online Advertising, Digital Advertising, Economics Of Online Advertising, Economics Of Journalism, Economics Of Digital Advertising

## JEL CLASSIFICATION CODES

M37, O12, L82

# THRACE MILLS CONTRACT FARMING: A SUSTAINABLE MODEL FOR LOCAL DEVELOPMENT

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## ABSTRACT

Thrace Mills, a leading Greek flour company, initiated a contract farming program in 2011 to address key challenges faced by wheat farmers in the Thrace region. The primary issues included financial instability due to fluctuating market prices, lack of liquidity for purchasing agricultural inputs, and the absence of support for sustainable agricultural practices. These challenges hindered farmers' ability to plan long-term and produce high-quality crops.

### Innovation

The innovation of Thrace Mills' program lies in its structured collaboration with local farmers. Through pre-agreed contracts, the company secures the purchase of their soft wheat at predetermined prices. Farmers receive advance funding for seeds, fertilizers, and other supplies, ensuring smooth operations throughout the cultivation process. Additionally, technical support and guidance on sustainable farming practices further enhance the quality of production.

### Contribution

The program provides tangible benefits to farmers and the region:

**Financial Stability:** Farmers gain assured income and protection from price volatility, enabling better planning and investment.

**Improved Productivity:** Access to technical expertise and high-quality inputs boosts yields and product quality.

**Regional Development:** Thrace Mills sources 100% Greek wheat, fostering economic growth and reducing dependence on imports.

**Sustainability:** By promoting environmentally responsible practices, the program ensures long-term soil health and resource efficiency.

The model's practicality lies in its win-win structure: farmers benefit from reduced financial risks and increased income, while Thrace Mills secures consistent supplies of high-quality wheat. This partnership strengthens local supply chains and contributes to the resilience of the agricultural sector in Thrace.

### Practicality

The practicality of the contract farming model employed by Thrace Mills lies in its ability to address real-world challenges faced by farmers while ensuring sustainable economic growth. Here's a more detailed analysis:

**Guaranteed Market Access:** Farmers in Evros benefit from having a secured buyer for their soft wheat, reducing uncertainties about selling their produce. This eliminates the need to compete in fluctuating markets and ensures steady demand for their crops.

**Financial Liquidity:** One of the most practical aspects is the advance funding provided by Thrace Mills. Farmers receive the necessary capital for purchasing seeds, fertilizers, and other agricultural inputs at the beginning of the cultivation cycle, reducing dependence on high-interest loans or personal savings.

**Risk Mitigation:** By locking in prices ahead of the harvest, farmers are shielded from price volatility caused by external factors, such as global market fluctuations or adverse weather conditions. This stability encourages long-term planning and investment in their farms.

**Technical Support:** Thrace Mills provides guidance on modern farming techniques, sustainable practices, and quality standards. This hands-on support helps farmers improve crop yield and quality, making their operations more efficient and profitable.

**Strengthening Local Supply Chains:** The model strengthens the entire agricultural ecosystem in Evros by creating interdependence between local producers and Thrace Mills. It reduces reliance on imported raw materials, boosting the local economy.

**Environmental Sustainability:** Thrace Mills encourages the adoption of sustainable agricultural methods, which improve soil health, conserve resources, and ensure long-term productivity of the farmland.

Community Development: The program not only supports individual farmers but also fosters broader regional development. By increasing farmers' income and stabilizing their livelihoods, it contributes to the prosperity of rural communities in Evros.

In essence, this model seamlessly combines economic viability, social responsibility, and environmental stewardship, creating a win-win scenario for farmers, the company, and the broader community.

## **KEYWORDS**

Contract Farming, Sustainable Agriculture, Financial Stability, Thrace Mills, Soft Wheat Production, Local Economic Growth, Technical Support

# SENTIMENT AND BANK PERFORMANCE: AN EMPIRICAL ANALYSIS THROUGH ELON MUSK'S TWEETS

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## ABSTRACT

Consumer's financial behavior could be influenced by the sentiment of tweets posted by highly influential people, impacting banking activities and, consequently, bank performance. This study aims to examine the relationship between sentiment and bank performance by considering a sample of 225 U.S.-listed banks during the period 2017-2021. The analysis combines both machine learning and econometric approaches. The analysis uses RoBERTa (a pre-trained transformer model) to extract emotions from Elon Musk's tweets and then apply the GMM model to assess the impact of sentiment on banks' profitability measured as ROA and ROE. The findings suggest that the overall sentiment has a negative impact on ROA, with negative emotions-such as, anger and sadness-having a statistically significant negative impact on ROA, while positive emotions appear to be insignificant. Moreover, sentiment has no effect on ROE, but negative emotions negatively affect ROE. These results carry certain implications for banks, enabling more informed decision-making regarding risk management, loan approval processes, and customer engagement strategies. Additionally, policymakers should consider social media sentiment as a potential source of economic volatility and its implications for financial stability.

# THE NEXUS BETWEEN FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH: EVIDENCE FROM PANEL ARDL ESTIMATION FOR WESTERN BALKANS

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## ABSTRACT

This study examines the relationship between financial development, economic growth, exports, transport, and tourism in the Western Balkans (WBs) over the 2009–2019 period. Employing a panel ARDL framework, the findings reveal that, in the short run, exports, transport, tourism, and economic growth exhibit a dampening effect on financial development. However, in the long run, only exports negatively impact financial development, while economic growth, transport, and tourism positively contribute. The study further confirms these findings using the Dynamic Fixed Effects (DFE) methodology, which shows that financial development significantly supports economic growth, transport, and tourism, though it does not benefit exports. These results highlight the complex interplay among these factors and offer crucial insights for policymakers in crafting strategies to foster balanced and sustainable financial development while mitigating adverse long-term effects in the Western Balkans.

## KEYWORDS

Financial Development, Economic Growth, Exports, Transport, Tourism, Panel ARDL, Western Balkans.

# DIGITAL TRANSFORMATION AND E-COMMERCE OF SMES IN EUROPEAN UNION

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## ABSTRACT

This research examines in detail the impact of digitalization on the e-commerce performance of small and medium-sized enterprises (SMEs) in the 27 Member States of the European Union, with a particular focus on Romania. The main objective is to analyze to what extent different indicators contributing to the Digital Economy and Society Index (DESI) influence SMEs' online sales, highlighting the role of digital infrastructure and active engagement with the digital environment. The study uses panel data from the period 2020-2024, collected from the Eurostat database, to capture the trends and dynamics of digitalization during this timeframe. The analyzed indicators include internet access, frequency of internet use, digital interactions with government services and the contribution of e-commerce to SMEs' turnover. To determine the impact of these variables on the percentage of SMEs that sell online, the research applies regularized linear regression models (Ridge, Lasso and Elastic Net), as well as robust and weighted regression methods (WLS and Huber), which ensure an accurate interpretation of the relationship between variables, adjusting for data variability. The results show that the frequency of internet usage and digital government interactions have a positive and significant influence on the success of e-commerce among SMEs. In contrast, the mere existence of an internet connection is not enough to stimulate the growth of online sales. Additionally, SMEs that already generate revenues from e-commerce benefit from a competitive advantage, demonstrating that constant digitalization and the effective use of digital tools are key factors for the success of e-commerce. Regarding the situation in Romania, the study highlights the specific challenges faced by SMEs, including the relatively low level of digital literacy and limited interactions with digital public services. However, there are significant opportunities for growth, especially by implementing strategies that facilitate access to digital resources and promote active use of the internet. By improving the digital skills of entrepreneurs and creating a favorable environment for the integration of modern technologies, Romanian SMEs can contribute to accelerating the adoption of online commerce. The recommendations resulting from the research include intensifying digital education efforts, stimulating the interaction between SMEs and government digital services, and developing an accessible and quality digital infrastructure. It also highlights the importance of European support for digitalization initiatives, which could accelerate Romania's progress in this area and encourage SMEs to better capitalize on the opportunities offered by e-commerce. In conclusion, the study confirms that digitalization plays a key role in increasing the performance of SMEs in online commerce. However, success depends on factors such as frequent and active use of the internet, government digital support, and the adaptation of marketing strategies to changing consumer behaviors. In this context, the development of coherent policies and strategic initiatives can transform digitalization into a catalyst for economic progress. For Romania, the digital integration of SMEs represents a major opportunity, but also a challenge, requiring involvement from both the authorities and the private sector.

## KEYWORDS

Digitalization, E-commerce, SMEs, Digital marketing, DESI

## JEL CLASSIFICATION CODES

L81, O33, M31

# STRATEGY OR INVENTIVENESS? A COMPARATIVE ANALYSIS OF THE V4 STATES' POST-PANDEMIC TRANSPORT POLICIES

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## ABSTRACT

The necessity of reliable and resilient transportation networks in Europe has been strikingly brought to light by the pandemic, the subsequent economic/energy crisis, and the war in Ukraine. Exposed to various geopolitical threats, the highly open economies of Eastern and Central European states are increasingly interested in constructing crisis-resistant as well as integrated transport routes in order to operate a socially and environmentally sustainable mobility system. This paper presents four different paths for post-2020 transport development with special regards to policy planning, funding allocation, stakeholder interest articulation, and societal needs. A critical comparative analyses of the Czech, the Hungarian, the Polish, and the Slovakian governments' decision-making helps understand the similarities and the differences of long-term planning when it comes to the development of mobility services. The comparability of the four countries' transport environments is made feasible and justified by the similarities in their economic structures, the global challenges that apply to all four parties, as well as their shared historical background and geopolitical features.

Limited to the timeframe from 2020 to 2024, the hereby presented research is based on four main methodological pillars. First, with a view to having a clear picture about the V4 states' principles and premises about the future of their transport network, the article provides a content analysis of the most recent transport strategies and/or long-term development plans of the respective governments. A keyword-based investigation of such official Czech, Hungarian, Polish, and Slovakian releases/declarations provides the textual information necessary to identify the common and/or unique attributes in the research corpus. Second, by a comparative statistical data analysis, the research examines the possible correlations between the evolution of state budget transport spending (dependent variable) and the changes in the citizens' mobility services usage habits in the four states concerned (independent variable). This chapter provides the reference points from which – extrapolating from all available information – the motivations of the respective transport development ideas of the Visegrád States can be assessed from a public policy viewpoint.

After examining the decision-making processes, the research continues with structured interviews with independent experts. By its necessarily subjective interpretative framework, the presentation of the Czech, Hungarian, Polish, and Slovak professional positions on the four countries' transport development plans contributes to the practical interpretation of the policy-making processes. Last but not least, subsequent to elaborating on the actor and observer sides of transport policy planning, an in-depth analysis of the topic's political science theoretical background helps to place the research results in the context of previous academic achievements in the field. A solid literature review of the various political theories and debates on the role of transport policies in a modern society's public affairs paves the way for defensible and debatable conclusions about the main research question: whether the transport development efforts of the four Visegrád States eventually came together into coherent governmental strategies since the pandemic, or such endeavors shall be interpreted but mere spillovers of different ad hoc policy decisions responding to actual circumstances?

## KEYWORDS

Transport Policy, Policy-making, Mobility Network, Strategy

**JEL CLASSIFICATION CODES**

F5, L91, R41

# MIGRATION, REMITTANCES, AND WAGE-INFLATION SPILLOVERS: THE CASE OF ALBANIA

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## ABSTRACT

Motivated by migration phenomena and wage-inflation spillovers, we investigate the relationship between the two and the inflationary remittances built-in pressures. We establish a feedback loop between migration and inflation, and specify a simple dynamic model to identify the pass-through. We have found that a permanent decline of population by 1.0% leads up to 0.8 percentage points of inflation pressures in the midterm. Remittances induce excessive pressures. Supportive schemes such as an older retirement age and higher labour force participation rate can partially mitigate inflationary pressures.

## KEYWORDS

Labour Market, Demographics, Inflation, Wage, Remittances, Feedback-loop.

## JEL CLASSIFICATION CODES

J11, J31, E24,

# EXPLORING THE RELATIONSHIP BETWEEN POPULATION AGING AND REGIONAL INEQUALITIES IN GREECE

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## ABSTRACT

Demographic changes have become a prevalent global challenge due to the multifaceted implications for current and future generations. The dominant debate in the social sciences involves more than just interpreting demographic indicators. This study explores the causal connection between demographic changes and spatial inequalities. The goal is to investigate the impact of population aging on regional disparities in Greece from 2011 to 2023. With an emphasis on Greek NUTS2 regions, the study employs demographic and GINI coefficient data. The findings indicate significant population change and inequalities in GDP among Greek regions, demonstrating a gap between urban and rural areas and asymmetric regional growth. Besides population aging, local heterogeneities and idiosyncrasies substantially contribute to the further depopulation and inequality of Greek regions. The population aging and depopulation form a nation of two spatial units: the metropolitan centers and a deserted province. Furthermore, significant GDP and GINI coefficient disparities among Greek regions demonstrate a gap between urban and rural areas and asymmetric regional growth. Consolidating intense intra-regional demographic and development inequalities entails the risk of disrupting national social cohesion. The contribution of the present study is to provide empirical evidence of population aging and regional inequalities across NUTS2 regions. Also, it is expected to deliver knowledge to policymakers and local administrations. Finally, the findings highlight the necessity for implementing specific policy strategies to offset the effects of population aging and ensure income equality.

## KEYWORDS

Population Aging, Regional Inequalities, GINI Coefficient, NUTS2 Regions, Greece

## JEL CLASSIFICATION CODES

J1, J11, R23

# EUROPEAN BANKING UNION: SOME FINDINGS

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## ABSTRACT

The proposed paper aims, firstly, to highlight the interaction between the European Banking Union and European Countries through a relative review of the literature. Additionally, the paper seeks to examine a critical factor for the financial sustainability and resilience of the European banking system, non-performing loans (NPLs), measured as a percentage of total bank loans per country. Through the European Banking Union it is ensured that non-performing loans are managed in a systematic and uniformed way, reducing risks to the EU economy. Specifically, the study investigates the relationship between NPLs and unemployment, attempting to correlate the NPLs of the current year (t) with the unemployment rate of the previous year (t-1). To this end, a simple linear regression analysis is conducted for the 12 Eurozone member states with available data on NPLs. The period under examination begins in 2008, due to limited data availability, and extends to 2019. It was deemed appropriate to exclude the pandemic period, as it was an exogenous (to the economic system) crisis that was addressed with significant state intervention, which could potentially distort the findings and compromise the validity of conclusions drawn. The results are statistically significant at the 1% level ( $p < .001$ ), with the regression model indicating that the unemployment rate of the previous year (t-1) explains 63.05% (R-squared) of the variance in non-performing loans for the current year (t). These results can be interpreted by the fact that unemployment often affects the ability of households (due to reduced income from wages) and businesses (due to decreased demand) to service their loans, functioning as a leading indicator for NPLs. Furthermore, economic difficulties caused by unemployment may not immediately impact NPLs but do so with a time lag. These results form an important basis for feeding predictive models in the future. In the following, the findings concerning individual member states are summarized. Firstly, in the case of Italy, it was found that the introduction of the banking union increased the number of entities involved in crisis management and added complexity to decision-making processes. This change discouraged cooperation, and the outcomes of crisis management policies became ambiguous and less effective. Similarly, the implementation of new bank resolution rules in Slovenia sparked significant domestic opposition, highlighting the need for a balance between uniform common rules and adaptation to the specific needs of member states. The study also underscored the importance of enhancing transparency and accountability at all levels of decision-making, as this increases public and political trust, reduces the politicization of banking restructuring, and mitigates resistance. Finally, Spain's experience provided several important lessons for the European Banking Union. It was observed that delayed decisions led to increased costs for Spanish taxpayers, emphasizing that the banking union must act promptly and decisively during crises. Furthermore, the importance of centralized supervision, swift intervention, and avoiding dual supervisory standards—such as those seen with Spain's regional savings banks (Cajas)—was highlighted, illustrating how consistent oversight mechanisms can foster greater systemic stability.

## KEYWORDS

European Banking Union, Resilience, Non Performing Loans (NPLs)

# A COMPARATIVE ANALYSIS OF THE ECONOMIES OF GREECE, CYPRUS, BULGARIA AND ROMANIA DURING 2019-2023

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## ABSTRACT

The present article focuses on the study of the taxation levels in Greece, as well as the analysis of the trends of representative macroeconomic indicators and quality of life indicators in Greece and three other Southeast European countries: Cyprus, Bulgaria, and Romania. This study employs a comparative analysis method in order to compare tax rates, the evolution of representative macroeconomic indicators and quality of life indicators. The values of these indicators are presented over the period from 2019 to 2023, and trends in each country are identified. The aim of the study is to provide a clear picture of the economic situation of the examined countries and to formulate proposals for improving Greece's competitiveness. From this analysis and comparison, it emerges that Greece has the highest tax rates on income tax, both for individuals and legal entities, as well as the highest unemployment rates compared to the other three countries. Additionally, Greece, like Romania, exhibits a negative trade balance, which may create economic problems and negatively affect its growth. Despite the high tax rates, Greece faces serious challenges regarding material and social deprivation, indicating issues in accessing basic goods and services. Although inflation levels in Greece are lower than those in Romania and Bulgaria, this positive trend is insufficient to offset the other weaknesses observed. Cyprus appears to show significantly better performance in the examined indicators compared to the other three countries. The study highlights the urgent need for the implementation of tax reforms so that the current Greek tax system becomes less stringent, avoiding the imposition of high tax burdens on citizens and businesses. Finally, changes in the country's fiscal policy are required to improve conditions for both citizens and potential investors wishing to operate in Greece.

# **A PRELIMINARY SURVEY ON CONSUMERS' ATTITUDES TOWARDS BIOPESTICIDE TREATED AGRICULTURE AND FOOD PRODUCTS**

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## **ABSTRACT**

Biopesticides are natural or biologically derived substances used to control pests, including insects, weeds, fungi, and other organisms that can harm plants and crops. The prospects for biopesticides are quite promising, especially under the Green Deal policy of the European Union and they are expected to play an increasingly important role in sustainable agriculture and pest control in the future. However, it is important also to investigate if consumers are willing to buy food and agricultural products treated with bio-pesticides, Consumers who are concerned about the potential risks of synthetic chemicals in food, as well as those interested in sustainable farming practices, tend to be more willing to support products treated with bio-pesticides. Having this in mind the consumers' attitudes towards biopesticide-treated food products could affect the Biopesticides' perspectives to be adopted by farmers and thus acquire a significant market share in the pesticides market. The objective of this study is to illustrate consumers' awareness and their willingness to pay for agricultural and food products treated with biopesticide products. For this reason, a survey was conducted in three Mediterranean countries (Greece, Tunisia, Algeria) were conducted during the autumn of 2024. One hundred thirty-six questionnaires were collected for the purposes of the survey following a convenient sampling procedure capable of providing a preliminary illustration of consumers' attitudes towards biopesticide treated food products. Respondents were asked a series of questions on the factors that shape their perceptions on environmental protection and the factors affecting their food choices. In addition, a classification of consumers were performed based on their awareness of climate change and the role of pesticides in the environment. The clusters created were used to illustrate differences in the participating consumers of the three Mediterranean countries. The results clarified that awareness of climate change and the consequences of pesticides on the environment affect consumers perceptions and formulated their attitudes when buying food products. These results confirm the increased consumers' interest on protecting the environment not only in European Union Counties but also in Mediterranean Countries outside EU. The results of this research could help marketers and policy makers and to by providing some valuable data on consumers preferences about environmental friendly food products.

## **KEYWORDS**

Environment Protection, Greece.

## **JEL CLASSIFICATION CODES**

M31, Q13, Q56

# THE TWIN TRANSITION: A DIVE INTO THE EUROPEAN REGIONS

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## ABSTRACT

This study explores the twin transition in European countries through a spatio-temporal analysis, focusing on the synergy between environmental sustainability and digital transformation. Specifically, it investigates trends in patent applications and grants, dividing Europe into two groups: Old Europe and New Europe, based on the European Union's 2004 enlargement criteria. The primary objective is to examine the disparities between these groups in terms of innovation performance within the twin transition framework. To achieve this, the study adopts a mixed-method approach, combining quantitative and qualitative analyses. A unique dataset is constructed, integrating data from the European Patent Office (EPO) and the Organization for Economic Co-operation and Development (OECD). The dataset includes information on environmental and digital patent applications and grants across European regions from 2014 to 2020. The analysis involves micro-level assessments of individual countries' performance over time and annual comparisons across all EU member states. The findings reveal that Old Europe consistently outperforms New Europe in both environmental and digital patent applications and grants. This gap highlights structural challenges faced by New EU members, including limitations in innovation capacity and institutional support. The study underscores the importance of targeted policy measures to bridge this divide, fostering greater alignment in innovation efforts across Europe and contributing to the success of the twin transition.

## KEYWORDS

Twin Transition, Patents, Environment, Digitalization, Policy.

## JEL CLASSIFICATION

O30, O31, O33, R11

# ENHANCING THE SUSTAINABILITY OF THE SHIPPING INDUSTRY THROUGH THE REDUCTION OF GREENHOUSE GAS EMISSIONS: A LITERATURE REVIEW

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## ABSTRACT

The intention and causes of adopting clean propulsion technologies in maritime transport concern the shift towards environmentally friendly solutions. Technologies include using renewable energy sources, such as liquefied natural gas, biofuels, electrification, and implementing innovative systems. The adoption of these forms of energy complies with international regulation requirements, the increase in the competitiveness of shipping companies, and the need to reduce operating costs. The paper's main aim is to present a literature review of reducing greenhouse gas emissions and enhancing the sustainability of the Greek shipping industry. In Greek shipping, investments in «green ships», seem to be led by following compliance with international regulations of the International Maritime Organization for maintaining national shipping at competitive levels and due to increasing pressure for continuous environmental awareness to ensure a sustainable future.

# **CLIMATE MIGRATION IN THE WESTERN BALKANS: ADAPTING CLIMATE ACTION (SDG13) TO NATIONAL CONTEXTS IN ALBANIA AND NORTH MACEDONIA**

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## **ABSTRACT**

Climate change is increasingly recognized as one of the most critical challenges facing the global community, as environmental shocks threaten human livelihoods, displace populations, and exacerbate the frequency and severity of extreme weather events. Rising temperatures, prolonged droughts, and resource shortages are not only environmental concerns but also key drivers of migration, compelling individuals and communities to relocate in search of more sustainable living conditions. Climate-induced migration is already evident in many parts of the world, including the Western Balkans, where countries such as Albania and North Macedonia are particularly vulnerable to climate-related disruptions. Declining agricultural yields, worsening water shortages, and intensifying wildfires pose significant risks to these nations, affecting both their economies and social stability. In addition to economic consequences, these environmental pressures contribute to sociopolitical distress, deepening instability and prompting large-scale population movements. As individuals seek to escape worsening conditions, migration flows become a crucial policy issue, requiring proactive strategies to manage both the challenges and opportunities they present. This integrative comparative paper examines the intricate relationship between climate change and migration in the Western Balkans, emphasizing the urgency of addressing these issues within the framework of Sustainable Development Goal 13 (SDG13), which focuses on climate action. The study aims to assess the extent to which national policies and regional strategies contribute to climate resilience and reduce the risks of forced migration in Albania and North Macedonia. By analyzing the role of international organizations, the EU Green Agenda, and climate adaptation initiatives, the integrative research highlights the broader implications of environmental governance on migration trends. Key factors driving climate migration in the region include land degradation, unsustainable resource exploitation, dependence on fossil fuels, and inadequate climate adaptation measures. These findings underscore the need for comprehensive policy interventions to promote sustainable development and strengthen climate resilience, ensuring that both Albania and North Macedonia can effectively address the socio-environmental challenges posed by climate change.

# THE NEW EU REGULATORY FRAMEWORK FOR CORPORATE DUE DILIGENCE ON SUSTAINABILITY ISSUES

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## ABSTRACT

The Corporate Sustainability Due Diligence Directive (CSDDD) aims to establish a comprehensive and horizontal regulatory framework at enhancing the contribution of companies operating within the EU internal market toward the Union's transition to a climateneutral and sustainable green economy. This initiative aligns with the objectives outlined in the European Green Deal and the United Nations Sustainable Development Goals (SDGs). By incorporating the CSDDD into the national legal orders of the Member States, companies will be obliged to integrate sustainability into every aspect of their corporate strategy and operations. The directive introduces binding rules concerning the responsibilities of large companies, both EU-based and non-EU entities operating within the internal market, in addressing actual and potential adverse impacts on human rights and the environment arising from their activities, those of their subsidiaries and the operations conducted by their business partners. These rules govern corporate behavior concerning their social and environmental impacts and impose liability for violations of these obligations. A key aspect of the directive is the mandatory due diligence regarding human rights and the environment throughout their value chain. The aim of the work is to examine some crucial questions such as (a) the regulatory scope of the CSDDD, specifically identifying which companies are required to fulfill the obligations for responsible business conduct, what activities are covered by these obligations, (b) the due diligence measures that companies are required to identify and address adverse impacts on human rights and the environment, (c) the mechanisms and enforcement procedures established to ensure the monitoring of the proper fulfillment of due diligence obligations and the appropriate enforcement of the CSDDD (d) the impact of the implementation of the CSDDD on both citizens and companies.

# UNDECLARED WORK AS AN ECONOMIC COPING MECHANISM: EVIDENCE FROM EMPIRICAL RESEARCH IN GREECE

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## ABSTRACT

Undeclared work occupies a significant position within the Greek economy, particularly during periods of economic instability. This research proposal examines the socio-economic determinants, sectoral patterns and regional inequalities of informal employment, using primary data collected through a structured survey. The dataset encompasses responses from individuals representing diverse demographics and employment sectors, enabling a comprehensive analysis of undeclared work. A mixed methodological approach is employed, combining quantitative analysis of Likert scale responses with qualitative insights from the open-ended survey questions. Focusing on region and sector-specific factors, the survey examines the conditions and individual perspectives that influence informal work practices. The survey design ensures the direct collection of information from respondents, capturing the nuanced reality and complexity of informal employment in Greece. This combination allows for a comprehensive examination of variables such as the perceived extent of undeclared work, incentives to participate and the impact of taxation, labor market regulations, and economic pressures. The primary objective is to investigate the underlying factors sustaining informal employment and to identify its root causes. The descriptive findings provide additional insights into the dynamics of informal labor in Greece. Excessive taxes and contributions emerged as the most significant motivator for undeclared work, with a mean score of 6.07, closely followed by the pursuit of supplementary income without tax burdens, scoring 5.61. Sectoral analysis highlights hospitality, with a mean score of 5.85, and construction, scoring 5.34, as key sectors for informal practices. Demographically, students with a mean score of 6.13 and migrants scoring 6.37 were identified as the most affected groups, providing a deeper understanding of sectoral and demographic dimensions to inform more effective policy strategies. A bibliometric analysis of 74 documents spanning the period from 1988 to 2025 complements the survey findings. The analysis identifies Greece, Europe, and the informal sector as the most recurrent themes, reflecting the regional and thematic concentration of research in this domain. The high average citation rate of 14.27 per document underscores the scholarly relevance of informal employment studies. Motor themes, including socio-economic factors and the informal sector, highlight their critical importance in shaping research directions. Additionally, with 28.38% of the works involving international co-authorship, the global nature of this issue becomes apparent. These bibliometric insights situate the study within a broader academic and policy context, further enhancing its analytical scope. In conclusion, the research contributes to a deeper understanding of undeclared work in Greece by examining its factors, patterns and wider implications. By examining field data tailored to regional and sectoral levels, the study identifies actionable insights to guide the development of targeted policies aimed at addressing informal work practices. These findings are intended to support the formulation of strategies that foster labor market formalization, reinforce regulatory frameworks, and promote social equity. By situating undeclared work within the broader context of economic vulnerability and resilience, the research aims to lay the groundwork for sustainable economic growth and labor market stability.

# A COMPREHENSIVE STUDY OF ARTIFICIAL INTELLIGENCE IN PRESERVING AND ADVANCING ASIA MINOR'S HERITAGE

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## ABSTRACT

The preservation of cultural heritage in historically significant regions such as Asia Minor presents a pressing need for innovative approaches to safeguard its tangible and intangible assets. This study examines the potential of artificial intelligence to contribute to the preservation and advancement of Asia Minor's heritage by focusing on its applications in the digitization, restoration, and analysis of historical artifacts, texts, and traditions. A systematic review of the existing literature will serve as the foundation of this research, providing a comprehensive overview of the current applications of AI within Asia Minor studies, specifically in heritage preservation. The analysis will prioritize methodologies employed in the preservation and interpretation of historical texts, artifacts, and intangible cultural practices, critically assessing their efficacy in addressing the multifaceted challenges associated with safeguarding this region's cultural heritage. To complement this evaluation, a bibliometric analysis will provide a quantitative examination of research trends, citation patterns, and key contributions within the field. Bibliometrics, a method of analyzing academic literature through citation data and publication metrics, has been employed in numerous studies themes. The bibliometric analysis spans 82 documents published between 2000 and 2024, demonstrating an annual growth rate of 9.05%. Key terms such as "cultural heritages," "virtual reality," and "historic preservation" emerge as motor themes, emphasizing the interdisciplinary application of AI in heritage studies. The average of 8.122 citations per document highlights the field's academic significance. Additionally, the thematic map reveals the integration of advanced technologies, including machine learning and 3D modeling, within heritage preservation frameworks. International collaboration accounts for 19.51% of the documents, underlining the global recognition of AI's potential in safeguarding Asia Minor's heritage. These findings situate this research within the broader academic landscape, further reinforcing its relevance and potential to advance scholarly and practical approaches in the field. This research seeks to advance the academic discourse on the integration of AI in Asia Minor studies by offering a critical perspective on its potential to address preservation challenges. By focusing on Asia Minor's heritage, the study aspires to provide a structured framework for understanding and applying AI technologies in heritage preservation, with an emphasis on maintaining the authenticity and integrity of cultural assets while enhancing their accessibility and long-term preservation.

# ESG AND GREENWASHING: EVIDENCE FROM ITALY

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## ABSTRACT

The purpose of this paper is to examine the relation between Environmental, Social and Governance (ESG) factors and greenwashing. Over the last few years attention towards social and environmental sustainability has increased both in the economic field and in all aspects of daily life. Sustainability is a strategic goal and is seen as a beacon that guides also business activity, to the point that the concept is evoked from different angles. The starting point is marked by the UN 2030 Agenda, which placed the issue of sustainability at the centre of attention. Similarly, the European Union also initially emphasised the idea of the sustainability of businesses, asking large companies to provide non-financial information according to the comply-or-explain rule; for this reason, codes on CSR were developed, albeit non-binding, which dictate principles and recommendations to be followed by management bodies. Existing legislation was subsequently amended; in fact, the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDD) have been recently issued. The results show that in Italy the general concern for the environment is so strong that it has taken on constitutional importance and led the lawmaker to reconcile economic activity with environmental sustainability. To this end, Articles 9 and 41 of the Italian Constitution have been amended, through the introduction of new fundamental principles, which seem to make the issue of sustainability take on a legal as well as a social dimension. As a result of these changes, any legislation enacted in the future must ensure that businesses are carried out in a sustainable and socially useful manner and take into account all aspects related to the environment. So, it is evident how important the environment is to ensure an adequate quality of life in the view of Italian law. However, it remains to be seen how ESG factors are to be pursued. Research shows that companies often disclose incomplete and, as a consequence, unreliable information. The reference is to so-called greenwashing practices, represented by the attempt to exploit the ever-increasing demand for environmentally friendly behaviour and strategies. Of course, the aim pursued through sterile and ineffective declarations of compliance with sustainability criteria that have not been achieved, or have never been achieved, is both to enhance a company's green image and to increase profits through increased clientele. In Italy, there is no specific discipline in this regard, and the European Commission has recently issued a Directive, the purpose of which is to make sure that there are more guarantees that a product or service indicated as environmentally friendly actually is. The conclusions of the research show that conducting a business in a sustainable manner affects the organisation of a company and that ESG factors are also the goal of a company. However, carrying out a business in a sustainable manner is not just a marketing operation, but it also requires a transformation of the organisational models and structures already adopted.

## KEYWORDS

ESG, Sustainability, Greenwashing, Business

## JEL CLASSIFICATION CODES

K22

# FINANCIAL INCLUSION OF SMES: CHALLENGES IN THE DIGITAL ERA

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## ABSTRACT

One of the primary goals of international policy is financial inclusion since it is considered a crucial tool for lowering poverty and promoting national development. The potential for both individuals and businesses to have access to practical and reasonably priced financial products and services that satisfy their needs and that are provided ethically and sustainably is made possible by financial inclusion. Our study examines the access to finance of European small and medium enterprises (SMEs) and their level of financial inclusion. We aim to identify the challenges SMEs face in the financing process and which factors play the most important role in increasing their financial inclusion. All these analyses are made in the current context of the digital era, dominated by the acceleration of the digitalisation process of firms. Starting from data provided by the European Commission and Eurostat, we run a series of econometric models to highlight the relationships tested. The level of digitalisation of SMEs is included in these models as a mediator. The results show that there are important differences between European countries regarding the level of financial inclusion of SMEs. We also highlight that the digitalisation of enterprises can enhance their financial inclusion. The study underlines the need to stimulate the financial inclusion of SMEs but also the significant role played by digitalisation in this process. Our findings may be of interest both to researchers by providing empirical evidence for the relationships tested in the context of current economic challenges and also to decision-makers, offering a guide in future decisions to support SMEs.

## KEYWORDS

SMEs, financial inclusion, access to finance, digital era

## JEL CLASSIFICATION CODES

G32, L25, O33

# THE ART OF EMPOWERMENT: UNVEILING THE SYNERGY OF DELEGATION, PSYCHOLOGICAL SAFETY, AND TRUST IN CONTEMPORARY LEADERSHIP

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## ABSTRACT

This study explores how delegation practices influence psychological safety in modern organizations and how trust in leadership and effective communication enhance this relationship. Delegation is examined not only as a method for distributing tasks but also as a key driver in creating an environment where employees feel secure to express their ideas, take risks, and learn from mistakes without fear of negative consequences. This research aims to provide a clear understanding of how these elements interact to improve overall organizational behavior and performance. A quantitative approach was used to gather data from a stratified sample of 250 employees representing various departments and levels within the organization. Validated measurement scales were employed to assess delegation practices, psychological safety, trust in leadership, and the quality of communication. Statistical analyses, including correlation, mediation, and moderation tests, revealed a significant positive relationship between delegation and psychological safety ( $r = 0.45, p < 0.01$ ). The results indicate that trust in leadership plays a mediating role, meaning that effective delegation builds trust, which in turn enhances psychological safety. Additionally, clear and open communication was found to strengthen this relationship further. These findings have important implications for both theory and practice. Theoretically, the study adds to the existing literature by offering an integrated model that clarifies the mechanisms linking delegation to psychological safety. Practically, it suggests that organizations can improve employee engagement, creativity, and overall performance by focusing on delegation strategies that also build trust and promote transparent communication. In summary, this research highlights the critical role of delegation in fostering a safe and supportive workplace. By clarifying how trust and communication enhance the impact of delegation, the study provides valuable insights for leaders aiming to create a resilient and high-performing organizational culture.

## KEYWORDS

Delegation, Psychological Safety, Trust In Leadership, Organizational Behavior, Communication.

## JEL CLASSIFICATION CODES

M14, M51, D22

# TACTILE INTERFACES OF SMARTPHONE DEVICES AND THEIR IMPACT ON BUSINESS GROWTH THROUGH INTELLIGENT MARKETING AND SMART BUSINESS COMMUNICATIONS

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## ABSTRACT

In many regions of the globe nowadays, mobile gadgets like smartphones and tablets are commonplace. They are used for both personal and professional purposes. This study focused on examining tactile interfaces of smartphone devices and their impact on business growth through intelligent marketing and smart business communications. The research is based on a quantitative empirical study carried out among several SMEs in Greece. Data was collected from 382 owners or managers of different SMEs in Greece using a survey questionnaire. The study demonstrated that the degree of company development is significantly impacted by the use of cellphones in tasks like brand promotion, strategic marketing, and market research. Smartphones have an effect on a company's productivity, adaptability, and business procedures. According to the findings, the use of mobile devices and the amount of work done remotely have little effect on how valuable people view their smartphones and tablets to be. On the other hand, if mobile devices help business operations and if a wide range of information is utilized, there will be a significant influence on value. The massive consumer use of smartphones illustrates the importance of smartphones in business communication, marketing and business growth. As smartphones start to become standard in society, consumers are transitioning away from using traditional mobile phones.

## KEYWORDS

Smartphones Tactile Interfaces, Intelligent Marketing, Business Applicability Of Smartphones, Business Growth.

## JEL CLASSIFICATION CODES

M15, M31, O47, O32

# ESG CRITERIA IN THE GREEK CONTEXT

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## ABSTRACT

In today's business landscape, Environmental, Social, and Governance (ESG) considerations have become increasingly significant worldwide, influencing corporate decision-making and sustainable development strategies. Greece, with its distinct economic, environmental, and social dynamics, is no exception to this trend. Over the past few years, Greek businesses have been progressively integrating ESG principles into their operations, driven by both regulatory requirements and a growing awareness of the long-term benefits of sustainability. ESG encompasses a broad spectrum of factors that impact a company's ethical standing and long-term viability. Environmental aspects focus on issues such as carbon footprint reduction, waste management, and resource conservation. Social factors relate to labor conditions, human rights initiatives, and corporate engagement with local communities. Governance elements emphasize corporate transparency, ethical leadership, and sound management practices. This study explores how Greek businesses are adopting ESG criteria and assesses their effectiveness in enhancing corporate sustainability. By analyzing publicly available data from companies listed on the Athens Stock Exchange, this research sheds light on ESG integration within the Greek corporate environment. The findings indicate that businesses implementing ESG principles not only achieve stronger financial performance but also enhance their social impact and corporate reputation. The insights gained from this study offer valuable guidance for professionals in sustainable entrepreneurship, corporate social responsibility, and risk management. By deepening our understanding of ESG adoption in Greece, this research also provides actionable recommendations for policies and best practices that can foster sustainable business growth and social responsibility in the country.

## KEYWORDS

ESG Criteria, Listed Companies, Athens Stock Exchange, Corporate Social Responsibility, Environmental Governance, Social Responsibility

## JEL CLASSIFICATION CODES

G30, M14, Q56

# **ARBITRATION IN EU COMPETITION LAW AND THE POSSIBILITIES OF APPLICATION IN ALBANIA**

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## **ABSTRACT**

In June 2023, the Albanian parliament introduced a new law regulating commercial arbitration. Law 52/2023 follows the UNCITRAL Model Law on International Commercial Arbitration from the United Nations Commission on International Trade Law. On the one hand, the new law fills a significant regulatory gap and, on the other, creates an essential instrument of access to justice. This paper examines the Albanian authorities' efforts to establish a functioning arbitral institution from a critical perspective, considering the market needs and the systemic challenges. After providing a general background, the article will also discuss the possibilities of using arbitration in Albania in private enforcement for violations of competition regulations and the digital sector, resolving competition disputes in the European Union through arbitration. Through an examination and interpretation of the European Union and Albania legislation, as well as court decisions and literature in the fields of competition and arbitration, this essay takes a conventional approach to the law. The analysis of available case law will provide insights into improving the approach of local Albanian courts.

## **KEYWORDS**

International Arbitration, Albania, Competition Enforcement

# **FINANCIALIZATION AND CORPORATE BEHAVIOR: UNIQUE DEVIATIONS IN THE CORPORATE GOVERNANCE PRACTICES OF SHIPPING COMPANIES**

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## **ABSTRACT**

Financialization as a phenomenon first emerged in the 1970s in the United States and subsequently spread to other continents and countries, with different rate of intensity, characteristics and duration, marking a new socio-economic manifestation of the capitalist system. The development of this phenomenon is associated with contemporary economic and institutional market transformations, leading to a reorientation of corporate strategic administration and management choices. This study explains the main reasons behind the rise and dominance of the phenomenon and presents findings from international research regarding the emergence and detection of financialisation at the level of states and at the level of companies. A review of key literature reveals the existence of unique deviations in the corporate governance practices of global commercial shipping companies compared to other economic sectors. These deviations concern both the governance structure of the companies and the degree of ownership concentration in relation to their corporate performance. Therefore, the usefulness of a research study that systematically links the phenomenon of financialization with the various forms and aspects of corporate governance becomes evident, contributing both theoretically and empirically to alternative managerial decision-making options.

## **KEYWORDS**

Financialization, corporate governance, governance structure, ownership concentration

# INDUSTRY OR ENERGY? UNPACKING THE DIVERGING CAPITAL FLOWS. HOW EU COUNTRIES NAVIGATE SECTORAL INVESTMENT SHIFTS (2014–2023).

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## ABSTRACT

European Green Deal as an essence for addressing climate change mitigation and sustainable growth sets directions for investment in green infrastructure. Do European countries act convergently when creating their investment policies? Not necessarily. The analysis of differences in investment trends for the industry and energy sectors shows different directions of involvement of European countries in building green infrastructure. The research objective is to assess the long-term economic trends and changes in annual NACE contribution over the 2014–2023 period for 27 European Union countries. The study sample consists of the annual values of investments in climate change mitigation by NACE (hereafter referred to as NACE) for 27 EU countries, as well as the overall result for the Euro area, over the period 2014 – 2023. These values were expressed as a percentage of gross domestic product (GDP). The analysis examined the total NACE values for all NACE activities, as well as for two specific sectors: energy and gas (sector 1) and manufacturing (sector 2). The analysis pronounced heterogeneity in how EU countries allocate their capital between manufacturing and energy, reflecting divergent industrial bases, regulatory environments, and decarbonization priorities. From a finance perspective, the considerable cross-country dispersion in energy versus manufacturing investment carries implications for both portfolio diversification and the design of European-level instruments. The comparison of different countries groups with similar policy present diversity in investment policy among European countries. The analysis present the differences in details. Overall, these national disparities highlight that, despite overarching EU objectives – particularly decarbonization and the promotion of advanced manufacturing – EU countries follow distinct pathways. Some emphasize the energy transition as a central pillar of capital formation, while others prioritize the expansion of manufacturing capacity. Shifts in relative shares often correspond to policy reorientations, the maturity of existing infrastructure, and the arrival or withdrawal of large-scale investors. Such trends not only shape the region’s sectoral composition and capacity for technological innovation, but also bear on the risk-return profiles of investments, potentially guiding private capital toward – or away from – specific industries and countries over time. The research contribute to the couple of directions: sustainability, regional development, green investments policy in industry and energy sectors among European countries. The research results are important from both the scientific and practical point of view.

## KEYWORDS

Sustainability, Green Infrastructure, Green Policy, European Countries, Industry Sector, Energy Sector, Investments

# THE IMPACT OF ARTIFICIAL INTELLIGENCE ON LABOR MARKETS IN THE BALKANS: RISKS, OPPORTUNITIES, AND POLICY RESPONSES

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## ABSTRACT

The rise of artificial intelligence (AI) is reshaping labor markets globally, introducing new opportunities while raising concerns over job displacement. In the Balkans, where economic transitions and technological advancements occur at varying speeds, AI-driven transformations have unique implications. This study investigates the effects of AI on employment in the region, focusing on risks related to automation, emerging job opportunities, and policy responses. The analysis highlights the need for workforce adaptation, educational reforms, and strategic regulatory frameworks to facilitate a smooth transition into AI-driven economies. AI is fundamentally altering economic structures, promoting automation, improving productivity, and enabling new business models (OECD, 2021). However, while AI enhances efficiency, concerns over labor market disruptions and social inequality persist (European Parliament, 2021). In the Balkans, where industries range from agriculture to technology-based sectors, AI presents challenges and opportunities. Limited digital infrastructure and gaps in workforce readiness make adaptation more difficult compared to Western European economies (European Training Foundation, 2023). This study explores how AI is shaping the labor market in the Balkans by analyzing sectoral changes, employment trends, and policy responses aimed at minimizing negative consequences while maximizing growth potential. AI's influence on employment manifests in two ways: automation-induced job displacement and the creation of new AI-driven roles (Agrawal, Gans, and Goldfarb, 2019). Traditional industries such as manufacturing and agriculture—dominant in Balkan economies—are particularly vulnerable. Routine-based jobs, such as assembly-line tasks and clerical work, are at high risk of being replaced by AI-driven systems (IMF, 2024). Conversely, AI is generating demand for skilled professionals in fields like data science, machine learning, and AI application development. The growing tech sectors in cities such as Bucharest, Sofia, and Belgrade provide opportunities for new career pathways (Istudor et al., 2024). However, transitioning workers from obsolete roles to AI-intensive jobs requires significant investment in education and reskilling programs. The impact of AI adoption varies across industries in the Balkans: Manufacturing: AI-powered automation reduces reliance on manual labor, necessitating a shift toward advanced technology management roles. Agriculture: AI-driven precision farming increases productivity, but rural laborers often lack the digital skills required to transition into AI-integrated agricultural practices. Finance: Banking and financial services are increasingly leveraging AI for fraud detection, algorithmic trading, and risk assessment, which alters traditional job structures. Healthcare: AI-assisted diagnostics and robotic surgical procedures are revolutionizing the healthcare industry, creating a demand for AI-literate medical professionals. Public Administration: AI-based digital services improve efficiency in government operations but require upskilling initiatives for public sector employees. These changes indicate a growing need for workforce flexibility and digital literacy programs (European Parliament, 2021). Balkan policymakers face three critical challenges in managing AI's labor market impact: Workforce Skill Gaps: Many workers lack the digital competencies required to thrive in AI-driven environments. Expansion of STEM education and vocational training is essential (OECD, 2021). Regional Inequalities: AI adoption tends to benefit urban areas with robust digital infrastructure, further marginalizing rural economies. Investments in digital accessibility and education can help bridge this gap (European Training Foundation, 2023). Regulatory and Ethical Considerations: Updating labor laws to address AI's impact on job security, data privacy, and fair labor practices is critical (ILO, 2025). A collaborative approach involving governments, businesses, and educational institutions is required to develop policies that encourage responsible AI implementation while safeguarding employment stability (Albanesi et al., 2024). For Balkan economies to remain competitive in an AI-driven world, educational systems must undergo reform. Universities and training institutions should emphasize AI literacy, programming, and

digital analytics as core subjects (Istudor et al., 2024). Beyond academia, corporate-led initiatives and government-sponsored training programs should facilitate lifelong learning. A national AI education strategy must also ensure inclusivity, providing access to digital learning resources for underserved populations. This approach will help mitigate employment disruptions and equip workers with the necessary skills to adapt to technological advancements. The AI revolution presents both risks and opportunities for Balkan labor markets. While automation threatens traditional jobs, AI also fosters innovation and job creation in high-tech sectors. Policymakers must focus on expanding digital education, reducing inequality, and enacting regulations that ensure fair AI integration. Through proactive measures, the Balkans can successfully navigate the transition into AI-driven economies while promoting sustainable growth and workforce resilience.

## **KEYWORDS**

Artificial Intelligence, Labor Market, Automation, Workforce Adaptation, Economic Transformation, Policy

## **JEL CLASSIFICATION CODES**

J24, O33, J23, E24, J68

# **BLOCKCHAIN: ENHANCING DIGITAL TRANSFORMATION FOR SUSTAINABLE, TRANSPARENT GOVERNANCE IN AUDITING PRACTICES**

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## **ABSTRACT**

In the face of growing demands for transparency and accountability in auditing practices, Blockchain is emerging as an innovative technology offering promising solutions. It enables immutable traceability of transactions, real-time verification of financial and operational data, and process automation via smart contracts. These features make it a strategic lever for strengthening corporate governance, improving regulatory compliance and meeting expectations in terms of ESG criteria. This research explores the perceptions of auditors and company managers regarding the adoption of Blockchain in auditing practices. A quantitative survey will be conducted among 200-300 industry professionals, including internal auditors, external audit firms and finance executives. The questionnaire will include sections on awareness of Blockchain, its potential benefits in auditing, perceived barriers to its adoption, and intention to use it. The data collected will be statistically analyzed using exploratory factor analysis to identify key dimensions of perceptions, followed by structural equation modeling (SEM) to examine factors influencing adoption. Expected results include a better understanding of the obstacles to integrating Blockchain into audit practices, such as technological complexity, implementation cost and organizational resistance. This study aims to formulate recommendations for decision-makers and practitioners to facilitate the adoption of this technology in a perspective of digital transformation and sustainable governance. This work aims to contribute to the development of innovative solutions in the field of auditing, while promoting a scientific dialogue around the use of new technologies for ethical and transparent corporate governance.

## **KEYWORDS**

Blockchain, Auditing, Sustainable Governance, Technology Adoption, Digital Transformation.

# **FINANCIAL AND STRATEGIC DRIVERS OF FIRM PROFITABILITY IN THE GREEK WINE INDUSTRY: AN EMPIRICAL PANEL DATA APPROACH**

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## **ABSTRACT**

This study explores the financial and strategic factors shaping firm performance in the Greek wine industry through an empirical analysis of 58 wineries from 2014 to 2022. Utilizing panel data techniques, the research evaluates the impact of liquidity, leverage, capitalization, firm size, and age on profitability. The results reveal that sound liquidity management and effective capitalization strategies drive financial success, whereas larger firms may encounter operational inefficiencies that constrain performance. These findings offer valuable insights for industry stakeholders, providing a data-driven foundation for optimizing financial strategies and enhancing the global competitiveness of Greek wineries.

# THE DEVELOPMENT OF CORPORATE SOCIAL RESPONSIBILITY (CSR) AND ITS CONNECTION TO BUSINESS ETHICS: A BIBLIOMETRIC ANALYSIS OF THE LAST DECADE

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## ABSTRACT

This study explores the development of Corporate Social Responsibility (CSR) and its connection to business ethics through a bibliometric analysis of the past decade. CSR, as a strategy that integrates economic, social, and environmental goals, has gained increasing importance in both the academic and business spheres. At the same time, business ethics emerges as a fundamental component in shaping sustainable business practices. The research is based on a bibliometric analysis of publications from reputable scientific databases such as Scopus and Web of Science. Specifically, keywords such as CSR, corporate social responsibility, business ethics, and sustainability are used, and articles published between 2015 and 2025 are examined. The analysis includes quantitative data, such as the number of publications, leading scientific sources, collaboration networks among researchers and institutions, and the most frequently explored topics. The study's findings highlight the rapid increase in interest in CSR and its interconnection with business ethics. Key research areas are identified, including the impact of CSR on corporate reputation, its integration into sustainability strategies, and the role of business ethics in shaping socially responsible practices. Additionally, the analysis highlights regions with high scientific output and gaps that offer opportunities for future research. Furthermore, the study contributes to a deeper understanding of CSR's evolution and its relationship with business ethics, providing both practical and theoretical insights for researchers and businesses. Finally, it underscores the need for interdisciplinary approaches that will further enhance discussions on sustainability and social responsibility.

## KEYWORDS

Corporate Social Responsibility (CSR), Business Ethics, Sustainability, Bibliometric Analysis, Corporate Reputation

## JEL CLASSIFICATION CODES

M14, M21, D63

# **THE FACTORS AFFECTING THE YIELD LEVEL OF 10 YEAR U.S TREASURY BILLS – INVESTORS PERSPECTIVE**

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## **ABSTRACT**

This research is focused on the U.S Treasury Bills as an investing opportunity for investors which don't have much appetite for risk and want to invest in a long-term investment. Throughout this thesis we have analyzed each of the factors that affect the yield level of these bonds, as we think that the yield is the best measure to calculate if a bond is profitable or not. Based on the literature review and other works that we took into consideration before making this study, we think that the main factors impacting the yield level are the interest rate implemented, The Inflation rate within the U.S throughout the years taken into consideration, The Market Risk Premium rate and The Spread Percentage (the difference between the yield of corporate bonds' yield and the treasury bills one). To fulfill its objective this thesis has taken into consideration data from 39 years from 1984 to 2022 regarding the Yield level, but also the other previously mentioned variables within the U.S. To measure the impact of the variables on the Yield level, we have done a time series analysis including a regression model where the Yield level is the dependent variable and the Interest rate, Inflation, the market risk premium percentage and also the spread percentage are the independent ones. It should also be mentioned the introduction of a new variable within the model called Yield lags. The results we got from the regression model show that all the variables have a significant effect on the depended variable and are within our expected coefficients' signs which mainly show the type of the relationship that the variables create between one another. It should also be mentioned that the results we got, gave us enough information to answer the questions rising in the case of the investors willing to invest in these sorts of assets. In this regard even though the study show that the yield level of these risk-free assets is effected by the above mentioned factors/variables, the investors should also take into consideration the day-to-day financial market conditions and take into account many circumstances before making their investing decisions.

## **KEYWORDS**

Yield Level, Treasury Bills, Investing Decision

## **JEL CLASSIFICATION CODES**

G1, G120, G4

# ENHANCING INDUSTRIAL EFFICIENCY AND ADAPTABILITY THROUGH DIGITAL TWINS: A REQUIREMENTS-DRIVEN APPROACH

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## ABSTRACT

In the era of Industry 4.0, manufacturers face increasing challenges related to efficiency, adaptability, predictive maintenance, and sustainability. Traditional industrial processes often suffer from inefficiencies, unexpected downtime, and suboptimal resource utilization due to a lack of real-time monitoring and predictive insights. In this light, the IndustriSphere project aims to revolutionize industrial operations through the integration of digital twin technology, enhancing efficiency, adaptability, and sustainability in manufacturing and production processes. Understanding the operational challenges and technological gaps of end users (industries) is essential for designing effective digital twin solutions. To achieve this, the project employs a multi-faceted approach that includes direct engagement with stakeholders via interviews and focus groups. These interactions provide qualitative insights into industry pain points, expectations, and key performance indicators, facilitating a user-centred approach to digital twin deployment. Moreover, a SWOT analysis is conducted to assess the current industrial environment, enabling the identification of technological enablers and barriers. This structured evaluation provides a strategic framework for aligning digital twin functionalities with real-world industry needs. Moreover, the project adopts process modeling techniques, utilizing UML diagrams to map and visualize industrial workflows. This step ensures a detailed representation of existing production dynamics, supporting the precise definition of requirements for digital twin applications. By integrating user feedback, strategic analysis, and process modelling, the project establishes a comprehensive requirement framework that enhances the technological and practical relevance of the proposed digital twin solutions. The insights gained will facilitate the development of scalable, interoperable, and sustainable digital twin models tailored to industrial applications. Furthermore, by addressing end-user needs at an early stage, the project enhances user adoption, ensuring that digital twin technology is effectively leveraged to optimize production efficiency, predictive maintenance, and resource management. The work is funded within the framework of the “SUB1.1: Clusters of Re-search Excellence (CREs)” Programme of the National Recovery and Resilience Plan ‘Greece 2.0’, and co-financed by the Greek State and the European Union (project code: YII3TA-0560952).

## KEYWORDS

Digital Twins, Industry 4.0, Smart Manufacturing, Industrial Sustainability, Requirements Analysis

## JEL CLASSIFICATION CODES

L23, O33, M11

# ENHANCING PUBLIC BUS TRANSPORTATION PERFORMANCE THROUGH BUSINESS ANALYTICS FOR SUSTAINABLE SMART CITIES

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## ABSTRACT

Cities increasingly face challenges in managing urban mobility due to population growth, business activities, tourism, and daily commutes. The economic impact and service demands from these challenges have demonstrated the need to evolve beyond traditional public transportation approaches, transforming public transportation from a mere service into a critical part of city economic sustainability. As urban mobility systems become more complex with multiple transportation modes, citizens and visitors demand high-speed, uninterrupted services. In today's world where time is a valuable indicator, public transportation service has evolved into a crucial economical business, significantly influencing business district vitality, property values, tourism accessibility, and regional competitiveness. The efficiency of transportation systems has become a key metric in evaluating city management effectiveness and urban prestige in global rankings. This development has necessitated a shift in public transportation management, where traditional operational approaches are being enhanced by digital systems and data-driven decision-making frameworks. The integration of smart transportation management systems, powered by real-time data analytics and artificial intelligence, has created opportunities for transportation authorities to optimize service delivery, enhance operational efficiency, and respond dynamically to changing urban mobility patterns. As cities embrace digital transformation, public transportation management has begun to utilize integrated platforms that combine enterprise data, operational data, IoT (Internet of Things) data, customer feedback, and economic indicators to create adaptive service models that better serve urban economic needs. This research examines how data-driven digitalization frameworks with business analytics applications that can improve public bus transportation performance and urban development. Through comprehensive literature analysis, this study investigates performance measurement with business analytical approaches considering both economic impact indicators and operational metrics. The research evaluates contemporary business analytics implementations in public transportation through established analytical frameworks, spanning literature from the last decade. The findings demonstrate that integrating analytics frameworks and modern technologies in transportation systems enhances both operational efficiency and urban economic performance, offering a practical approach for developing sustainable cities.

## KEYWORDS

Business Analytics, Business Intelligence, Data-driven Management, Sustainability, Smart City, Digital Transformation

## JEL CLASSIFICATION CODES

R4, R5

# DIGITAL HUMANITIES IN CULTURAL AND CREATIVE INDUSTRIES: INSIGHTS FROM THE INT-ACT PROJECT

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## ABSTRACT

Digital Humanities (DH) and Cultural and Creative Industries (CCIs) are enhancing modern economic growth by stimulating new methods of presentation, commercialization, and heritage preservation. On the other hand, it is evident that while societies are transitioning into digitally driven economies, technology plays an important role in both the support of intangible cultural heritage (ICH) and economic development. This, for example, is achieved through the deployment of cultural tourism and immersive technologies. Thus, it is essential to investigate the linkage between Digital Humanities and immersive technologies, as eXtended Reality (XR) and Natural Language Processing (NLP), and how they enhance CCIs and their overall economic impact. This paper explores the basic relation between Digital Humanities, CCIs, and economic development. The scope is to understand how the theoretical framework that lies in the disciplines of humanities and culture is linked to digitization and modern economies. Subsequently, there is an effort to examine the economic impact that cultural heritage brings within the creative economy. Cultural heritage exists as more than a historical knowledge collection, or a repository, as it generates economic growth through a variety of activities. The paper analyses how digital innovation rearranges the term of cultural narrative making it more interactive, commercially viable, accessible and open to larger audiences. While we process with the discussion, the emphasis shifts to the innovative and methodological approaches that link the cultural heritage, the economic impact and the digital technologies within the Digital Humanities context. In this paper, we examine how ontologies, XR experiences, and NLP—augmented narratives, together form new frameworks which serve in multiple needs in educational, tourism and digital economy sectors. To better comprehend the above-mentioned triplet of principles, this paper elaborates on an EU funded project entitled INT-ACT, as a case study of methodologies in the humanities sector. INT-ACT seeks to understand the dynamics between economic development and cultural tourism, ageing societies, disappearing communities and immigration and multiculturalism. It seeks to identify the societal opportunities within the creative industry, to present and preserve intangible cultural heritage (ICH) through immersive technologies. Thus, it is analyzed as an example of how heritage-driven initiatives create new revenue flows which enhance local economic growth. The paper concludes with the investigation of both challenges and opportunities of combining technology and economic growth into creative industries. Some of the identified implications include funding, adoption of technology in use and commercialization of intangible heritage. However, there are several key opportunities in scaling digital tools, forming public private-partnerships and integrating immersive technologies into policy frameworks, where stakeholders, policymakers, and industry professionals are provided with recommendations on how to support DH driven innovation in the CCIs, while creating resilient future societies and contributing to economic sustainability.

## KEYWORDS

Digital Humanities, Cultural Heritage, Creative Industries, Extended Reality (XR), Economic Development, Economic Sustainability, Societal Resilience.

**JEL CLASSIFICATION CODES:** Q01, Z10, Z19

# HOW FAR FROM THE “COMFORT ZONE”? DISMANTLING GREEK-CHINESE TRADE RELATIONS

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## ABSTRACT

The change of leadership in the United States has caused significant turmoil in international markets, with fears that the increasing economic uncertainty will also affect investment activities worldwide. In light of the ongoing trade war, national economies are being called upon to update their economic policies in order to offset welfare losses due to the recent tariff impositions. As for the European Union, member states seek joint responses and counter measures to address the potential negative impact of the reintroduction of US pro-tariff policies. At the same time, initiatives for developing new trade routes, such as for example the Global Gateway or the Belt and Road Initiative, may undoubtedly lead to reducing trade costs and raise new opportunities for economic cooperation along the Eurasian axis. With this in mind, the aim of the present paper is to delve deeper into the long-term patterns of Greek – Chinese trade relations, focusing here on merchandise trade, with a view to evaluate both trade partners’ “distance from the comfort zone”. The “distance from the comfort zone” is here defined as the difference between the partners’ bilateral trade structure and the corresponding revealed comparative advantages (RCAs) by product category, from the other hand. A greater distance implies that Greece’s sectoral comparative advantages explain little of the Greece-to-China export pattern, or vice versa, which in turn may highlight significant expansion prospects of bilateral trade activities in the mid and long term. With regard to the methodological approach, we run multiple Poisson Pseudo Maximum Likelihood (PPML) regressions for different time intervals and moving towards the most recent period, in order to assess temporal linkages between the partners’ bilateral trade trends and revealed comparative advantages by product category. For this purpose, we employ bilateral trade data from the UN Comtrade dataset, based on the Standard International Trade Classification (Revision 3) at the level of the 3-digit product categories. Based on data availability, the period under study extends from 1995 to 2023. Annual estimates of the revealed comparative advantage (RCA) index, based on Ricardian trade theory and the Balassa index, are also available for the same time period and are used to capture the effect of differences in sectoral productivity, namely by 3-digit product category, on Chinese – Greek bilateral merchandise trade. This sectoral trade approach has important implications for both government economic policies and business strategies amidst the recent trade wars and the updating and upgrading international trade routes that they imply. In addition, the study aspires to provide insights into identifying prospects for expanding export activities of European countries, including Balkans, to major markets worldwide.

## KEYWORDS

Greece, China, Sectoral Trade, Revealed Comparative Advantage

# **THEORY OF INTERNATIONAL POLITICAL ECONOMY REASSESSMENT: THE ROLE OF THE (DEVELOPMENTAL) STATE IN ECONOMIC DEVELOPMENT**

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## **ABSTRACT**

The current international economic political system is characterized by a state of continuous and persistent crises. The global financial crisis of 2008, the COVID-19 pandemic crisis of 2020, and the outbreak of war in Ukraine and the Middle East are just some of the events that have shaped the international context over the past two decades. (Zuleeg 2024). Perma-crisis and poly-crisis have become defining features of the international system (Katsikas, Lins & Ribeiro Hoffmann 2025), which has long been shaped by the (neo)liberalism and globalization—now evolving into forms such as slowbalization or deglobalization. (Kornprobst and Paul 2021). However, the conditions shaping the modern international political and economic system do not seem to fully align with these (neo)liberal principles. The developmental state theory stands in direct contrast to these claims, as it refers to a state with an interventionist role in the economy, actively directing the pace and course of economic development. Its roots lie in the state-led economic policies implemented by East Asian countries during the second half of the 20th century (Alice Amsden 1989; Wade 1990), particularly in the post-war Japanese economic model (Johnson 1982). Given that its research exceeds the limits of state borders, IPE contends that a comprehensive analysis of the international economic relations requires an interactive examination of both political and economic dimensions within individual states and the international system. (Hebron 2022). Therefore, this article proceeds to an in-depth analysis of the existing literature on IPE and provides a theoretical re-examination of the role of the state in economic development through the core approaches of IPE theory, as well as a reassessment of the developmental state theory from its emergence to the present day. The key findings suggest that, despite the dominance of the liberal approach in academic and policy discourse, the state continues to play a crucial role in economic growth and development. The developmental state theory offers an alternative perspective that challenges the notion of the state's gradual retreat in favor of the market. Furthermore, the research highlights that state interventionist policies remain crucial for boosting economic development and shaping long-term development strategies, particularly in times of economic crises and polycrisis.

## **KEYWORDS**

International Political Economy (IPE), Economic Development, Developmental State, Polycrisis, Permacrisis

# CORPORATE GOVERNANCE AND EARNINGS MANAGEMENT PRACTICES

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## ABSTRACT

In view of the 2008 Greek corporate governance law which mandates that all listed firms have an audit committee, as well as a number of other governance laws and CG recommendations, this study examines the impact of corporate governance mechanisms on earnings management practices from 2008 until 2023. Utilizing governance variables, such as board independence, gender diversity, board size, board diligence and audit committee characteristics, the effect of these variables is tested on their role in mitigating earnings management. Greece provides an interesting setting for corporate governance research since it is a country characterized by weak governance structures, low audit quality, moderate tax and financial conformity, low importance of capital markets and low financial transparency compared to other developed countries. Efforts to increase investor confidence and improve the long-term success and competitiveness of Greek firms by improving corporate governance have come through the enacting and enforcement of laws and specific codes of good governance practice. The year 2002 was a critical year for corporate governance in Greece. In May 2002, the first law was created that mandated Greek listed companies to enforce a set of governance guidelines. Based on an effort of continuous improvement, other corporate governance laws were also established, such as the mandatory creation of an audit committee from 2008, as well as other corporate governance laws in 2010. A new law in 2020, replaced the original 2002 CG law, without revolutionary changes, however some new provisions were incorporated, such as gender diverse quotas for firm's BOD and mandatory establishment of additional board committees. The establishment of the initial corporate governance laws concerning corporate governance mechanisms provided a stimulus for Hellenic Federation of Industries to prepare an updated Corporate Governance Code for listed companies as of December 2010, so as to educate and guide Greek listed companies on governance best practice. This Corporate Governance Code has been revised in both 2013 and 2021 by the Hellenic Corporate Governance Council. Data for this study is collected for firms listed in the Athens Stock Exchange (ASE) from 2008-2023 from Refinitiv Eikon for the sampled period. Earnings management is the key variable of interest and is estimated using the Modified Jones model (1991), whereby the absolute value of discretionary accruals is utilized to emphasize the magnitude of EM practices and not their direction. Governance variables employed in the study encompass elements connected to the composition of the board of directors and audit committee characteristics of Greek firms. Variables that control for leverage, size, profitability, age and industry characteristics are also included in the analysis. Initial findings indicate that Greek firms engage in higher levels of earnings management practices in recent years. As for the effect of governance variables on mitigating EM practices, board independence, audit committee independence and gender diversity are the key governance elements that mitigate EM practices.

## KEYWORDS

Corporate Governance, Earnings Management, Board Characteristics, Audit Committee, Greece

# TESTING THE IMPACT OF POLITICAL AND INSTITUTIONAL DYNAMICS ON ENVIRONMENTAL QUALITY: FRESH INSIGHTS FROM EUROPEAN TRANSITION ECONOMIES

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## ABSTRACT

Climate change remains a critical issue on the international policy agenda, with varying political systems exerting different levels of effort to mitigate carbon emissions. This paper aims to elucidate the influence of political and institutional dynamics on environmental quality within European Transition economies, notably the economies of the Western Balkans (WB). Focusing on WB region, the study underscores the environmental challenges posed by environmental pollution and the political shifts towards illiberalism. It also emphasizes the EU's role in encouraging WB countries to adopt the European Green Agenda (EGD) as part of their EU membership aspirations aiming for climate neutrality by 2050. The study delves into the interplay between political environments and climate change initiatives in the European transition economies, highlighting the spectrum of political regimes from electoral democracies to autocracies and their implications for climate action. Emphasizing governance dimensions such as voice and accountability, political stability, government effectiveness, the rule of law, control of corruption, and regulatory quality, the paper underscores their role in enhancing government legitimacy and efficacy beyond mere political regime classification. The research incorporates a comprehensive empirical analysis using a panel data set from 1998 to 2023, focusing on political and institutional variables identified as crucial for planning and implementing policies to limit environmental pollution. Overall, the paper provides insights into how navigating political landscapes can foster more effective environmental policies, stressing the necessity for robust governance structures and political will to achieve sustainable environmental advancements.

## KEYWORDS

Governance, Climate Change, Institutional Dynamics, European Transition Economies, Political Systems, Environmental Quality

## JEL CLASSIFICATION CODES

A12, F64, Q58

# STRATEGIES TO MITIGATE GENDER DISPARITIES IN PUBLIC HEALTHCARE ORGANIZATIONS: EVIDENCE FROM ITALY

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## ABSTRACT

The literature highlights the importance of gender diversity in top and middle management positions within healthcare organizations (Fusco et al., 2021). Several authors emphasize the role of gender diversity in hospital top management teams, highlighting its positive impact on operational (Naranjo-Gil et al. 2008; Ellwood et al., 2015) and financial performance (Tartaglia Polcini et al., 2021). Additionally, it is recognized that women are adept to fostering the implementation of innovative strategies in public hospitals (Arena et al., 2020). Despite this, the healthcare sector still lacks sufficient gender diversity in leadership roles (Mathad et al., 2019). Since 2010, the European Union has implemented various measures to promote gender balance in leadership positions. In 2012, the European Commission proposed a minimum target of 40% for the underrepresented sex among non-executive members of the boards of listed companies and companies under public control. In 2020, the Commission reaffirmed this target and urged the European Parliament to adopt measures aimed at increasing gender balance, which is also one of the goals of the United Nations' 2030 Agenda for Sustainable Development. In this context, many European countries have already enacted laws to increase gender diversity on boards, showing some progress (European Commission, 2020). Italy is among the countries that have made the most significant improvements in terms of the Gender Equality Index 2024, reaching a score closed to the European average. Despite this, Italy still exhibits significant inequality in labor "participation" and "segregation and quality of work" (two sub-domains of Gender Equality Index). In the healthcare sector, the need for gender equality in top management positions is gaining increasing attention, prompting policymakers to identify actions to reduce the current gap (Mathad et al., 2019). In Italy, some public healthcare organizations have implemented measures such as gender equality plans and positive action plans, driven mainly by regulatory requirements. However, addressing gender equality requires a system of initiatives that go beyond regulation and involve a deep cultural change (Vaderbroeck and Wasserfallen, 2017). To our knowledge, there are scant studies exploring the actions that healthcare organizations implement to enhance gender equality and their outcomes. It has been recognized that there is a gap in identifying effective operational instruments for this purpose (Paoloni et al., 2021; Khalifa and Scarparo, 2021). To bridge this gap, this study proposes a multidimensional framework to evaluate the degree of implementation and monitoring of gender equality actions in public healthcare organizations. A structured literature review (Massaro et al., 2016) was conducted to identify relevant strategies, objectives and actions needed to promote gender equality in healthcare, and to design the framework. Semi-structured interviews were carried out with a panel of experts from the Guarantee Committees for Equal Opportunity, Employee Well-Being, and Non-discrimination at Work of Italian public healthcare organizations to validate the framework. From a managerial perspective, our study could offer valuable insight to other countries with significant gender gaps in how to develop gender equality initiatives. It also proposes a framework to measure and control the advancements in this context.

**KEYWORDS**

Gender Equality, Healthcare Organizations, Gender Balance, Leadership Positions

**JEL CLASSIFICATION CODES**

M14 Corporate Culture, Diversity, Social Responsibility, M41 Accounting

# KEY CHALLENGES IN MANAGING WEATHER RISK EXPOSURE FOR A FOOD ENTERPRISE

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## ABSTRACT

In recent years, the landscape of risk management has evolved significantly, shifting from traditional enterprise risk management compliance frameworks (RM1) to more dynamic, resilience-focused approaches. Conventional risk management, rooted in structured, measurable risks, emphasized loss prevention, mitigation, and risk transfer strategies, including insurance. However, as risks have grown more complex and interconnected, particularly in the food supply chain, the limitations of this conventional model have become apparent. For food enterprises, managing weather-related risks presents a unique challenge. Unlike traditional risks, which can often be quantified based on historical data and probability models, climate-related threats are increasingly unpredictable. Events such as prolonged droughts, floods, extreme temperatures, hurricanes etc. disrupt not only crop yields as a main raw material for food processing, but also the entire logistics infrastructure, affecting procurement, transportation, and storage. Moreover, food processors often operate within multimodal supply chains, relying on ports, rail, and road networks, all of which are vulnerable to extreme weather events. As seen in past disruptions, drought-induced transport failures in the Mississippi and Rhine rivers to the paralyzing effects of Hurricane Katrina and the Icelandic volcanic eruption, weather risks are systemic, affecting multiple nodes of the supply chain simultaneously. This growing uncertainty has led to a paradigm shift in risk management, moving away from traditional loss mitigation toward resilience engineering. Instead of merely transferring risks through insurance mechanisms, food enterprises are increasingly investing in structural resilience, such as long-term relationships with supplying farmers, vertical integration, improved storage solutions, diversified sourcing strategies, and technology-driven information risk tracking systems. However, even with these proactive measures, financial exposure remains, as new investments also lead to new risks, also related to climate, which should be treated, in a proper way, including their hedging. The question remains: will weather risk transfer tools continue to play a role in this new risk management paradigm? Traditional indemnity-based insurance, designed for stable, predictable environments, is proving less effective in managing complex, cascading disruptions. However, parametric insurance or weather derivatives, which pay out based on predefined weather or yield index triggers rather than assessed damage, may still hold value, especially if integrated within a broader resilience strategy rather than treated as a primary risk mitigation tool. Additionally, weather derivatives and parametric insurance may serve as complementary mechanisms, helping food enterprises manage cost volatility rather than solely relying on conventional claims-based compensation. Ultimately, while food processors must prioritize internal resilience, the role of weather risk transfer tools should not be entirely dismissed. Instead, their application may evolve, becoming more targeted and adaptive within a broader, system-based approach to risk management. As climate-related disruptions continue to challenge global food supply chains, the effectiveness of these financial instruments will depend on their ability to align with a resilience-first strategy rather than acting as a standalone solution.

# **ANALYZING REAL EXCHANGE RATES AND INTERNATIONAL COMPETITIVENESS IN THE EUROZONE: CONVERGENCE OR DIVERGENCE?**

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## **ABSTRACT**

This paper investigates the impact of the euro on price convergence among the initial 12 Eurozone member states. Using advanced econometric methods, it examines real exchange rate stationarity and price level convergence to evaluate whether the euro's introduction has facilitated the attainment of Purchasing Power Parity (PPP) and convergence in international competitiveness within the Eurozone. While the euro theoretically promises reduced transaction costs and enhanced price convergence, empirical findings reveal inconsistencies in price convergence across the region. The elimination of nominal exchange rate flexibility has presented challenges to achieving PPP, with varying outcomes observed among member states. The results suggest that the Eurozone has not uniformly addressed disparities in price levels and international competitiveness. Moreover, the study concludes that PPP is not universally valid, raising critical questions about the theoretical assumptions and policy frameworks reliant on this principle.

## **KEYWORDS**

International Competitiveness Convergence, Eurozone, Purchasing Power Parity, Nonlinear Analysis, International Finance

## **JEL CLASSIFICATION CODES**

C22, F31, F40

# CIRCULAR ECONOMY IN THE DIGITAL AGE: THE ROLE OF TECHNOLOGY IN SUSTAINABLE DEVELOPMENT

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## ABSTRACT

The circular economy is the evolution of the linear economy and promotes sustainable growth. Developing a circular economy framework contributes to the rational use of resources through strategies that reduce waste and improve environmental, social, and economic resources. Digital technology plays an important role with the presence of Artificial Intelligence (AI), Internet of Things (IOT), Industrial Internet Of Things (IIOT), and blockchain. All these issues are a field of study around the world and this research elucidates these aspects. This research aims to highlight the importance of coupling circular economy and digital technology with a sustainable development orientation. The researchers used Google Scholar and Scopus databases, and for the sample collection, they focused on the years 2017-2024 and especially on the research that is linked to the search criteria for the topic under consideration. The results of the research are important as they help stakeholders to identify those elements that help sustainable development. An interaction between the circular economy and the rapid development of digital technology was identified to a significant extent. The findings show that global developments are leading to a new transition that requires that it be economically feasible, and technologically sustainable, but also socially just and inclusive. The role of digital technologies is inextricably linked to the circular economy and maximally contributes to sustainable development.

## KEYWORDS

Circular Economy, Technology, Digital Age, Sustainable Development

## JEL CLASSIFICATION CODES

O10, O33, O40

# EARLY WARNING SYSTEMS IN THE BALKAN BANKING SYSTEM BEFORE AND AFTER THE COVID-19 PANDEMIC

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## ABSTRACT

This study presents early warning systems in the Balkan Banking sector using the CAMELS model. The purpose of this study is to evaluate the financial soundness of the major Balkan commercial banks using the revised CAMELS model according to the framework of Basel Committee III before during and after the COVID-19 pandemic. The COVID-19 pandemic had economic instabilities that affected the financial health of firms, banks, public and governance of the Balkan countries. In the last 12 years 2010-2021 two major crises that invaded in the Balkan area shook the foundations of the weak economy of the Balkan countries with significant impacts on the economy of businesses and banks and by extension the citizens of these countries. The global financial crisis began with the invasion in the Balkans, and before their economy had even recovered, the corona-virus crisis followed. The economic crisis of COVID-19 pandemic, was a new challenge for both the financial banking system and government of the Balkan countries, after the world financial crisis that invaded in the Balkan economies on 2010. This study investigates and illustrates the impact of the economic crisis on the banking systems of the Balkan countries after the implementation of the Basel III rules. The banking industry has evolved rapidly in recent decades, shifting from a financial intermediary to a risk manager. Recent economic developments have brought banks and their operations into the spotlight. A key element of financial confidence is ensuring that banks are adequately capitalized. The CAMELS model is a financial tool that helps measure and restores the confidence of the investors and depositors to the banking system. This study aims to examine the financial progress of eight Balkan banks from 2018 to 2023. In specifically, we analyze eight major Balkan banks, ranked by their assets. Those banks are Piraeus Bank from Greece, National Commercial Bank or NCB from Albania, Macedonian Bank for Development Promotion or MBDP from North Macedonia, UniCredit Bulbank from Bulgaria, Banca Comercială Română or BCR from Romania, Banca Intesa from Serbia, Zagrebačka Banka or ZABA from Croatia, and Nova Ljubljanska Banka or NLB Group from Slovenia. The study analyses compares, evaluates, and ultimately classifies these banks based on CAMELS model scores according to the framework and principals of Basel Committee III. The research questions of our study is if there was any appearance of early warning risky signals for major Balkan banks before, during and after the COVID-19 pandemic. The study analyses and presents its results during 2018-2019 two years before the COVID-19 pandemic, two years 2020-2021 on the COVID-19 pandemic and two years 2022-2023 after the COVID-19 pandemic. Those findings shows two years after the COVID-19 pandemic that there was a significant improvement of the financial soundness of the selected Balkan banks, even better than the examined time period two years before the pandemic. Of course during the two years of COVID-19 pandemic the early warning risky signs of the Balkan banks were obvious.

## KEYWORDS

CAMELS Model, Capital Adequacy, Financial Performance, Banks, Balkan Banks

**JEL CLASSIFICATION:** C13, G21, G33, G34

# **THE MANDATORY INFORMATION OF THE INSURANCE RECIPIENT IN ACCORDANCE WITH THE EUROPEAN AND GREEK LEGISLATIVE FRAMEWORK**

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## **ABSTRACT**

In recent decades and in particular after the financial crisis of 2008, the EU's will to strengthen the European legislative framework with provisions concerning mandatory information and protection of the insurance recipient, financial product recipient, consumer, has intensified. The principle of consumer protection is established under Article 38 of the Charter of Fundamental Rights of the European Union, ensuring that its policies will ensure a high level of relevant protection. Moreover, in conjunction with Article 52 for compliance with the principle of proportionality, there could be restrictions only in necessary cases. The European and subsequently the Greek provisions that strengthen the mandatory information of the insurance recipient were strengthened by the adoption of Directive 2016/97/EU concerning the distribution of insurance products by providing adequate information conditions, for the understanding of the relevant risks covered and other information. The relevant European mandatory information law also includes provisions from a set of European legislation that were incorporated into Greek law, such as Regulation (EU) 1286/2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs), Directive 2009/138/EC on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), and Directive 2014/65/EU on markets in financial investment products (MiFID II). The intention to strengthen the European legislative framework at the level of the internal market is also evident from recent proposals such as the proposal for a directive on a package of measures relating to the protection of retail investors.

## **KEYWORDS**

European Law, Private Insurance Law, Insurance Recipient

## **JEL CLASSIFICATION CODES**

K22, L80, G22

# THE EVOLUTION OF IMF CONDITIONALITY FROM THE PERSPECTIVE OF REALISM

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## ABSTRACT

The financial support to the member countries is a basic responsibility of the International Monetary Fund in the global economic governance. One of the main criticisms against the IMF is the influence of international political factors on its lending policies. The conditionality of the Fund, i.e. the set of conditions attached to structural adjustment loans in return for the financial support of the international financial institution, is a key factor in this influence. This paper examines the evolution of conditionality through the lens of realism, one of the key theoretical approaches in the field of International Political Economy (IPE). The literature demonstrates that stronger, developed member countries and their allies are associated with more favorable loan terms, while, in contrast, developing countries or geopolitical rivals face more onerous terms. The study attempts to show how conditionality has changed over the years as a tool of power by the dominant economies to influence IMF lending policies.

## KEYWORDS

International Monetary Fund, Economic Policy, Geopolitics

## JEL CLASSIFICATION CODES

F00, F33, F53

# **MANAGEMENT OF CIVIL INSOLVENCY IN THE YEARS OF ECONOMIC CRISIS IN GREECE THROUGH THE SCOPE OF LAW 3869/2010 FOR THE OVERINDEBTED NATURAL PERSONS AS REFLECTED BY THE EXAMINATION OF ITS APPLICATION IN THE REGIONS OF CENTRAL GREECE AND THESSALY**

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## **ABSTRACT**

The Greek state undertook some main legislative measures, on the basis of Law 3869/2010. These measures framed civil insolvency during the years of the economic crisis 2011-2019, as it appeared through the over-indebtedness of natural persons. It focused on natural persons without commercial status and inability to service the loan exposures they had undertaken. The paper examines the evolution of appeals to the Justice by the population in two of the thirteen Regions of Greece, Central Macedonia and Thessaly, for judicial settlement of their debts compared to the evolution of other macroeconomic parameters and how this law acted in relation to the particular characteristics of each region. The first part presents the institutional framework of the law, the conditions of inclusion, the scope-subject of regulation and regulatory framework, as well as the main amendments that took place during its validity. The second part of the article focuses on the specialization of the data, which were collected as part of research in the local Magistrates' Courts of each Region, i.e. the number of filed Applications L.3869/2010 per Region during the years of the financial crisis 2011-2019 and their results, in the analysis of the way of carrying out this research, the development of the methodology of data acquisition, processing and interpretation thereof. Then are given the data, obtained from the investigation carried out in the courts of the two Regions of Greece, Central Macedonia and Thessaly, as well as is interpreted the evolution of these in each Region. These results are compared with other macroeconomic factors as they were formed in each of the Regions and considered with each other, taking into account the special characteristics of each region such as the main branches of economic activity that are located and all of this under the evolving data of the economic crisis that hit Greece in 2011 -2019. The analysis of the numbers by region makes the picture of the development of the economic crisis clearer and more interesting as it is more targeted at the special characteristics of each Region from the point of view of the main legislative measure of the State to deal with urban insolvency during the years of the Greek economic crisis, of L.3869/2010 "Law on Overindebted Natural Persons".

# EVALUATING HEALTHCARE ORGANIZATION PERFORMANCE: ENHANCING EFFICIENCY AND EFFECTIVENESS FOR PUBLIC VALUE CREATION

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## ABSTRACT

The Ministerial Decree of May 23, 2022, no. 77, which came into force on July 7, 2022, establishes the models and standards for the development of territorial healthcare within the National Health Service. This measure, part of Mission 6 of the National Recovery and Resilience Plan, aims to improve access to healthcare, ensure continuity of care, and reduce dependence on hospital facilities through the reorganization of primary and intermediate care services. In this context, the research aims to evaluate the effectiveness, efficiency, and utility of the new organizational and healthcare models introduced by Decree 77. The main goal is to develop a framework capable of measuring the impact of the reform on the organization of territorial healthcare services in Italy. To achieve this objective, the methodology adopted integrates an in-depth review of the scientific literature with the examination of secondary sources from institutions such as AGENAS, the Ministry of Health, the Scuola Universitaria Superiore Sant'Anna di Pisa, and ISTAT. These data allow for the identification of the most suitable performance analysis dimensions to evaluate the effects of the reform. The evaluation framework is inspired by the model proposed by Levesque and Sutherland, which identifies 12 key constructs for measuring healthcare performance. This model has been adapted to the specific innovations introduced by Decree 77/2022, leading to the identification of four fundamental performance analysis dimensions. The first dimension concerns access to care, specifically the ability to use available healthcare services in the community. This includes access to general practitioners, specialists, and home care services. The effectiveness of the model proposed by Decree 77 depends on the ease with which citizens can obtain necessary care, thus reducing the need for hospital services, particularly for situations that can be treated at the territorial level. The second dimension addresses quality of care and continuity of care, assessing how well healthcare services are integrated and how they ensure a continuous care pathway, particularly for chronic patients or those requiring home care. Continuity of care is essential to avoid fragmentation in treatment and to improve the overall effectiveness of care, especially for those facing long-term illnesses. The third dimension is the effectiveness of the reforms introduced, measured primarily through the reduction of avoidable hospitalizations and the management of chronic diseases. The aim of this dimension is to assess the extent to which the new structures and organizational models proposed by Decree 77 can reduce hospital admissions, instead favoring more appropriate and timely solutions at the territorial level. Finally, the last dimension concerns the sustainability of the territorial system in terms of available resources: financial, human, and technological. This aspect examines whether the proposed model can maintain a balance between the effectiveness of services and resource management, ensuring an optimal distribution of resources to sustain the implementation and growth of territorial healthcare services over the long term, with a focus on creating public value. To monitor these dimensions, a dashboard of indicators has been developed to identify strengths and areas for improvement within the healthcare structures outlined by Decree 77. The research results provide a starting point for an initial evaluation of the implementation of territorial healthcare reorganization. In practical terms, the research offers valuable insights to optimize the efficiency of services and ensure an appropriate response to citizens' needs. Theoretically, adapting the proposed framework enriches the debate on the organization of healthcare in Italy by introducing an innovative evaluation model. Lastly, future developments of the research could integrate the analysis with longitudinal data to assess

the evolution of the reform over time and further explore the long-term impacts of organizational changes on patients and the entire territorial healthcare system.

**KEYWORDS**

Public Value, Performance, Indicators, Health Organization

**JEL CLASSIFICATION CODES**

M21

# THE IMPACT OF CORPORATE SUSTAINABILITY REPORTING DIRECTIVE (CSRD) AND THE ESRS STANDARDS ON NON-FINANCIAL DISCLOSURE: CHALLENGES AND OPPORTUNITIES FOR THE ENERGY SECTOR

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## ABSTRACT

In recent years, social institutions, the community, and stakeholders have become increasingly aware of the fundamental role of business in promoting sustainable development. The need to report on the impacts of business operations in terms of environmental protection, ethics, occupational safety, governance, and social cohesion, and consequently, to enable the stakeholder audience to understand the multidimensionality of company performance, soon led to the spread of more holistic and integrated systems, practices, and models of corporate reporting (Adhriana and De Villiers, 2019). Directive 2022/2646/EU - Corporate Sustainability Reporting Directive - which came into force on 05 January 2023, marks a radical change in the regulatory approach related to sustainability with the introduction of a new reporting obligations for large companies, listed SMEs and non-European companies that generate a significant amount of revenue in the European market. The aim is to promote greater transparency on their sustainable impacts and, more specifically, to commit companies to disclose all information necessary to describe the impact of the business and corporate strategy on sustainability issues and to understand how these affect the transition process towards a sustainable and climateneutral Economy. To enhance the standardization and comparability of sustainability reporting, companies are required to adopt a single reporting standard: the European Sustainability Reporting Standards (ESRS), issued by the European Financial Reporting Advisory Group (EFRAG). This standard aims to align sustainability reporting with broader European economic policy goals. It consists of 12 general standards, applicable to all companies subject to mandatory reporting (with the exception of listed SMEs, for which a separate set of standards will be developed). They specify the information the company are required to provide on its impacts, risks, and opportunities in the three areas identified by the Directive (environment, social and governance). These standards are based on a multi-stakeholder perspective, whereby the addressees of Directive 2022/2646/EU are not only investors, but also consumers and, more generally, all stakeholders interested in knowing the impact of business activity on the environment and society and who, through their own behavior, can push companies to change their strategies for sustainability. The introduction of a stricter regulatory framework is not only a response to the inefficiencies of voluntary reporting practices, but a necessity to counter the behavior of irresponsible corporations. Indeed, the new legislation aims to ensure that all companies, not just the particularly virtuous ones, adopt an approach of transparency and accountability that reflects the “double materiality” of their actions (Baumóller and Sopp, 2021). Following this approach, reporting must cover all the information needed to understand the impact of the company's activities on society and the environment (the “outside-in” perspective) but also that useful for outlining the sustainability factors that influence the company's development, performance and competitive position (the “inside-out” perspective) (Mio et al., 2024). In the energy sector, where the transition to decarbonization and rapid global changes put companies under intense pressure, the implementation of CSRD is a significant challenge, but also an opportunity to improve transparency and accountability. Indeed, listed companies are expected to address the increasing demands for clarity and transparency from investors and stakeholders. Considering these observations, this paper aims to analyze how, considering the new normative measure, corporate organizations operating in the energy sector

respond to the need to address the accountability gap challenge by providing information on sustainability issues that affect the process of value creation or erosion for the company. Through a methodology based on quantitative data analysis (content analysis) (Krippendorff, 2004) (of sustainability reports published by a sample of listed energy sector companies, the study focuses on assessing the degree of compliance with ESRS standards, the effectiveness of ESG integration, and alignment with the SDGs (Adam et al., 2020), offering practical guidance to improve the quality and comparability of sustainability reporting.

## **KEYWORDS**

CSRD, ESRS Standard, Double Materiality, SDGs, ESG, Energy Sector, Sustainability.

# THE POLITICAL ECONOMY OF ENERGY SECURITY OF TURKEY: CHALLENGES AND PERSPECTIVES

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## ABSTRACT

Energy security is a fundamental element of a country's economic development and is undeniably linked to the increase of its power in the international system. In recent years, there has been growing concern in the global environment regarding energy security issues. Phenomena such as climate change, geopolitical risks due to increasing international conflicts and wars, combined with the growth of the global population and rising energy demand, place energy among the most critical issues that political leaders of our time must address. In international literature, there are various definitions of energy security, as its significance varies between developing and developed countries, as well as between energy-importing and energy-exporting states, highlighting the unequal power dynamics among nations within the international system. According to the International Energy Agency (IEA), energy security is defined as "the uninterrupted availability of energy sources at an affordable price." (IEA, n.d.). Additionally, many studies examine quantitative factors that influence a country's energy security, such as energy prices, energy consumption, GDP, investments in the energy sector, and population. However, in recent years, there has been a growing number of studies incorporating qualitative indicators to measure a country's energy security status quo, such as the Democracy Index, political stability, geopolitical risk, and awareness of environmentally friendly energy policies. As a result, among others, the social, political and economic impact of energy security is increasingly being highlighted (Erdal, 2015). Energy security remains one of the most significant concerns for states worldwide, especially for those heavily reliant on other countries to meet their energy needs, such as Turkey. In recent decades, there has been a continuous increase in Turkey's energy demand, driven by its growing economy and population. The rise in Turkey's energy consumption poses a significant challenge for the country's policymakers, as Turkey heavily depends on other nations to meet its energy needs. Indeed, Turkey relies on energy-exporting countries such as Russia, Iran, and Azerbaijan for 75%–80% of its energy requirements (Gokhan, 2014), as a result, the need to reformulate its energy policy becomes imperative. Therefore, Turkey must leverage its comparative advantages, such as its geographical location, which positions it as a potential energy hub in the region and, by extension, a strong regional actor. Additionally, improving technology to increase the use of renewable energy sources is essential for achieving a sustainable energy future. In conclusion, the aim of this paper is to assess Turkey's current situation in the energy security sector and highlight its comparative advantages as well as the challenges policymakers are expected to face in the next decade. Finally, this article seeks to analyze all the factors influencing Turkey's energy security and, by extension, its position in the international system.

## KEYWORDS

Energy Security, Energy Security of Turkey, Geopolitics, Renewable Energy Sources

# COMPLIANCE OF SUSTAINABILITY REPORTING WITH EUROPEAN SUSTAINABILITY REPORTING STANDARDS: THE CASE OF THE OIL AND GAS SECTOR

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## ABSTRACT

The concept of sustainability has evolved over the years, especially in the last century, moving from isolated efforts to a growing global concern. The population has been recognizing the need to ensure the continuity of the species through sustainable practices and measures, driven by issues such as climate change and inequality. Climate change, the use of fossil fuels, the carbon footprint, and social inequalities are just some of the many reasons why people have started to look for mechanisms to make sustainability a focus of special concern and bring it into line with other sensitive issues in society. From a business perspective, many organizations have adopted sustainable measures, which have become an important criterion for gaining prominence in the market, especially in the oil and gas industry, which face significant challenges. Although the guarantee of a net-zero planet is still far from being achieved, the path to this goal is now slightly shorter than at the beginning of the 20th century. The recent release of the new Directive 2022/2464, along with the latest sustainability standards (ESRS – European Sustainability Reporting Standards), aim at facilitating the adoption of sustainable practices by companies, promoting a genuinely sustainable business and avoiding greenwashing. This Directive is not the first on sustainability, and it certainly won't be the last, but it is the most up-to-date version of sustainable regulation, and with new features that will leverage entities to an ever-truer business. The objective of this article is to analyze the European Sustainability Reporting Standards and the sustainability reports of a sample of entities in the oil sector to verify their compliance with the new regulations. The new concept of double materiality, introduced by Directive 2022/2464, is of particular importance and becomes a key element throughout the study. This new approach will allow entities to take a more comprehensive view of their sustainable performance, in addition to the financial performance that is already considered in financial reporting.

## KEYWORDS

Sustainability, ESRS Standards, Double Materiality, Oil and Gas Sector.

## JEL CLASSIFICATION CODES

M14; M42; M48

# **EU-RUSSIAN TRADE RELATIONS IN AN ERA OF EU SANCTION POLICY TO RUSSIA**

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## **ABSTRACT**

Global economic activity as well as increased economic interaction between states have strengthened the case for the use of economic sanctions as a tool of economic diplomacy and international foreign policy. Given the presence of sanctions in the landscape of world politics and the response of the European Union to impose sanction on the Russian Federation in March 2014, due to the events in Crimea, which resulted in the annexation by the Russian Federation, as well as due to the unjustified invasion in Ukraine in February 2022, the research seeks to answer the questions whether the economic sanctions and especially the embargo had the expected results, whether the goals and objectives of the sanctions were achieved by offering a solution for a long term settlement in Ukraine, or whether the pre-determined its stay in an arena of confrontation by exacerbating the energy and food crisis. For this purpose the research collects and analyzes data from reputable sources and organizations offering a secondary analysis of official statistical data more comparatively main macroeconomic indicators. The research concludes that the sanctions and especially the embargo imposed on the Russian Federation so far as events are unfolding have not produced the expected results in the economy of the Russian Federation however they have negatively affected the economy of the European Union putting it on a path of lower development.

## **KEYWORDS**

European Union, Embargo, Sanctions, Russian Federation

## **JEL CLASSIFICATION CODES**

F1, F510

# **THE BUSINESS OF MANIPULATION: THE PREVALANCE OF DARK PATTERNS IN DIGITAL ECONOMY AND REGULATORY RESPONSE IN E.U**

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## **ABSTRACT**

The rapid growth of the digital economy has brought significant benefits to businesses and consumers alike. However, manipulative design practices, commonly known as ‘dark patterns,’ designed to trick users into unwanted transactional decisions against their interests. These practices have emerged as a result of businesses strategic choice often resulting in economic and emotional harm, reduced privacy, and eroded consumer trust. On a larger scale, dark patterns distort fair competition, reduce market transparency, and create inefficiencies in the digital economy. A European Commission study found that 97% of web sites and applications use “dark patterns” to manipulate user behavior and choices, raising concerns about these practices and the need for regulatory interventions. This paper aims to explore the prevalence of ‘dark patterns,’ in digital economy, analyze their impact on consumer welfare and businesses and assess the adequacy of current regulatory frameworks which although comprehensive, face limitations in enforcement and adaptability to evolving digital practices. To foster consumer trust and ensure fair digital practices, this paper highlights the need for enhanced regulatory measures in the EU and emphasizes the importance of ethical business practices that prioritize consumer welfare.

## **KEYWORDS**

Dark Patterns, UCPD GDPR DSA DMA, Consumer Protection, Competition

## **JEL CLASSIFICATION CODES**

K00, D18, K33

# **CUSTOMS DIGITALIZATION AS PART OF THE E-GOVERNMENT SYSTEM**

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## **ABSTRACT**

In recent years the role of customs authorities has expanded, it is multidimensional and therefore, the use of new technologies is an absolute necessity. The ICISNET Customs Information System came over to assist in this process. The purpose of the study is to analyze its use by customs officials of the relevant services of Thessaloniki. As e-customs constitutes a standard form of e-administration, where the import and export of goods is facilitated through the ICISNET integrated information system, legal trade is promoted, and smuggling is combated. The study is expected to highlight the role of ICISNET in fulfilling the targeted audits. Consequently, it will contribute by highlighting the ICISNET information system as an optimization factor of the audit process. The study performs a primary analysis by collecting data. Data analysis is performed at a level of significance 5%, in the statistical program IBM SPSS 26, using the parametric independent samples t-test, the non-parametric Mann Whitney, Kruskal Wallis and Spearman tests, and linear multiple regression. The expected results include the impact of the ICISNET information system on the optimization of the control process in customs, and the evaluation of the risk analysis improvement.

## **KEYWORDS**

Customs control, Customs Administration, ICISNET Information System, Primary Research

## **JEL CLASSIFICATION CODES**

O38, C44

# **EVOLVING DETERMINANTS OF VENTURE CAPITAL INVESTMENTS IN EUROPE: AN ANALYSIS FROM 2007 TO 2022**

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## **ABSTRACT**

This study examines possible changes in the determinants of venture capital investments in Europe from 2007 to 2022. The venture capital market plays a major role in the global economy by financing innovative startups and thereby stimulating economic growth. The research employs a reduced form equilibrium model and three panel data regression models to explore if there were any changes in the macroeconomic determinants such as market expectations, long-term interest rates, fiscal environment, innovation potential, labor market rigidities, and global events. The results indicate that most of the determinants remain consistent with the literature. They also suggest a disparity in the effect of global events on the VC market. While the Global Financial Crisis hindered the global economy, the pandemic exerted a strong positive impact on VC investments. Furthermore, the results suggest that a growing economy investing in innovation will experience an increase in venture capital activity. Unexpectedly, labor market rigidities had a positive effect on VC volume, highlighting the tendency for unemployed individuals in Europe to become necessity driven entrepreneurs. Conversely, rising long-term interest rates were found to negatively impact VC investments in Europe. The study fills a gap in the literature by extending the analysis to recent years and providing insights into the evolving determinants of VC investments. Future research should consider additional variables and the long-term effects of the pandemic.

## **KEYWORDS**

Venture Capital, Market Rigidities, COVID-19 Pandemic

## **JEL CLASSIFICATION CODES**

G24, E44

# AUDIT FEES THROUGH THE LENS OF LEADERSHIP AND ECONOMIC UNCERTAINTY: ANALYSIS OF GREEK LISTED COMPANIES

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## ABSTRACT

This study examines the factors influencing audit fees in Greek listed companies, with a specific focus on the roles of CEO gender, economic uncertainty, and other critical determinants. It investigates whether audit fees differ when a company is led by a female versus a male CEO or board chairman and the impact of macroeconomic and financial variables on audit cost formation. The study draws on data from Greek listed companies on the Athens Stock Exchange (ASE) for the period 2019–2023, using annual financial statements, corporate governance reports, and audit firm disclosures (secondary research). We assess the effect of economic uncertainty through variables such as the Economic Policy Uncertainty Index (EPU), GDP volatility, and capital market conditions, employing multivariate regression model and stratified analysis. Key independent variables include CEO gender, company size, choice of audit firm (Big 4 vs. Non-Big 4), leverage level, board composition, liquidity, and profitability. Preliminary findings suggest that audit fees increase during periods of economic uncertainty and that companies led by female executives may exhibit different levels of audit fees, potentially due to variations on risk response, data disclosure, and governance practices. Our research contributes to the literature on audit fees and corporate governance by integrating the gender dimension into financial decision-making and examining the role of economic uncertainty. The findings provide valuable insights for investors, corporate management, regulators, and audit firms, aiding in the development of strategies that promote transparency and optimal corporate governance practices.

## KEYWORDS

Audit Fees, Corporate Governance, Economic Uncertainty, Gender Diversification, Macroeconomic and Financial Variables, Audit Firms.

## JEL CLASSIFICATION

O16, H83

# THE EFFECT OF EDUCATIONAL LEVEL ON THE DEVELOPMENT OF ENVIRONMENTAL AWARENESS

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## ABSTRACT

The environment is the basic framework of life for all organisms, and human impact on it has reached critical levels. Environmental protection is one of the most urgent and critical factors for the sustainable development of our planet. The development of environmental awareness in society is the core of the effort to preserve and effectively manage natural resources and the environment. The main research question of the work focuses on the relationship between the level of education and environmental awareness. It also examines the differentiation of knowledge of environmental problems among individuals with different levels of education and investigates behavioral tendencies towards environmental protection in relation to the level of education. Finally, the role of other variables, such as gender, in the relationship between the level of education and environmental awareness is examined. This research work is an important effort to understand the relationship between education and environmental awareness and highlights the importance of environmental education as a means for the development of more responsible and sustainable environmental behaviors. Using data collected from a questionnaire completed by 349 citizens of the Municipality of Nestos (Region of Eastern Macedonia and Thrace), with an average age of 37 years and representing all educational backgrounds, the research examines the correlation between education levels and environmental awareness. The results reveal a statistically significant relationship between education levels and concern for the future of the environment. Individuals with higher levels of education tend to express less concern for the environment compared to those with lower educational attainment. This finding suggests that formal education may influence individuals' perceptions of environmental issues and their level of concern for the environment's future. Regarding knowledge about the environmental impact of individual and collective behaviors, no statistically significant differences were observed across different education levels, implying that education might not significantly affect people's knowledge of environmental consequences related to their actions. However, a notable difference is observed in personal ethical norms and the sense of responsibility towards environmentally responsible behavior. Graduates from universities and technical colleges express a greater sense of obligation for environmentally responsible conduct compared to those holding doctoral degrees. Furthermore, there is a substantial variation in environmental behavior across education levels. Individuals with a high school diploma exhibit the lowest level of environmentally responsible behavior, while those with a doctoral degree demonstrate the highest level of engagement in such behavior. In conclusion, this research highlights the significant role of education in shaping environmental awareness and behavior. While education does not seem to significantly affect knowledge about environmental consequences, it does play a significant role in influencing individuals' environmental concerns, ethical norms, and actual environmental behavior. These findings underscore the importance of promoting environmental education and awareness across all educational levels to foster responsible environmental behavior and contribute to a more sustainable future.

## KEYWORDS

Environmental Problems, Environmental Education, Environmental Awareness

JEL CLASSIFICATION CODES: Q51

# SOCIAL BUSINESS IN THE SYSTEM OF ANTI-CRISIS ECONOMIC MANAGEMENT TOOLS

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## ABSTRACT.

Under the influence of global processes in the world, the economies of individual countries, in particular the Balkan countries and Eastern Europe, have often shown signs of crises of various origins over the past two decades. This requires the search for and introduction of specific anti-crisis instruments into the economic management system that will ensure the resilience of the national economy, not only in terms of its ability to recover quickly from shocks and reduce negative consequences, but also in terms of its ability to adapt to changes and transform in response to internal and external challenges. The issue of crisis management is of relevance for Ukraine, whose economy has been operating under the exhausting conditions of martial law since February 2022. Among the wide range of traditional anti-crisis management tools in the current environment, it is proposed to pay special attention to social business as a type of social entrepreneurship, which, due to its uniqueness, allows simultaneously solving economic and social problems in the country or individual regions. Thus, it accelerates the economic recovery after the crisis, and, as a rule, without significant efforts on the part of the state. The purpose of the research is to substantiate the role of social business as an anti-crisis economic management tool and to identify recommendations for its spread and support on the example of Ukraine (based on successful cases of European countries). Social business is a unique form of entrepreneurial activity aimed not only at making a profit, but also at solving social or environmental problems on the principles of innovation, social and ethical responsibility, inclusiveness, flexibility, partnership (with the community, authorities), etc. It should be noted that the principle of inclusiveness is gaining special significance in the current context. Inclusiveness in social business implies creating equal opportunities for all people, regardless of their physical, social, economic or cultural characteristics, to access economic activities and ensure the availability of goods and services necessary for life. The research found that social business is a form of social entrepreneurship. The article identifies their common features and differences according to such criteria as the substantive essence, organisational form, principles of profit distribution, main focus of activity, orientation, scaling, and risks. The article analyses the experience of social entrepreneurship and social business development in the Balkan and European countries, in particular, in Ukraine, and their impact on macroeconomic and social indicators, which proves the importance of spreading these practices and reorienting business towards social goals. Particular attention is paid to the evolution of social entrepreneurship in Moldova, as this country has demonstrated significant progress in this area in recent years and, like Ukraine, has a post-Soviet origin and many similar socio-economic problems in economic management. It is determined that the key anti-crisis manifestations of social business on the national or local economy are as follows: growth in business activity, national (regional) gross product and tax revenues; boosting the employment sector by promoting self-employment, creating additional jobs by social entrepreneurs, expanding the barrier-free labour market, and actively engaging vulnerable groups in labour relations; strengthening the preconditions for balanced development by comprehensively addressing not only economic welfare, but also social and environmental issues; reducing social tension in society and the burden on the state to address social and environmental problems through self-organisation of entrepreneurs and their active interaction with the community. It is proved that there is a need for programme support for social business and the dissemination of relevant entrepreneurial skills among representatives of different social groups.

**KEYWORDS**

social business, social entrepreneurship, crisis management, economic management, inclusiveness

# THE INCENTIVE EFFECTS OF ARTIFICIAL INTELLIGENCE FOR THE TOURISM INDUSTRY IN EUROPE

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## ABSTRACT

Technology and tourism have a reciprocal relationship, where technologies not only transform tourism but also shape it. Technological innovations support increased efficiency in every economic sector. In recent years, the tourism industry has experienced profound changes initiated by rapid technological advances. Technology has ushered in a new era in the tourism industry, especially with the evolution of artificial intelligence (AI) as well as the application of smart technologies that have significantly reshaped the way the tourism industry operates, affecting changing business models and tourist behavior. Artificial intelligence is among the most important innovative solutions. Integrating artificial intelligence into the tourism sector not only improves operational efficiency, but also demonstrates the country's commitment to innovation and providing exceptional tourist experiences. Furthermore, AI is redefining the future of tourism and hospitality by simplifying business operations, automating repetitive tasks, optimizing resource allocation and improving efficiency in areas such as reservation management, demand forecasting and communication processes. In addition, in the near future, the development of personalized solutions in the tourism industry with the application of artificial intelligence is foreseen, which enables the unstoppable continuous progress of this sector. However, this technological progress, in addition to a number of advantages that it enables the tourism industry, also creates certain difficulties for which adequate solutions must be found. The subject of this paper is the research of the effects that artificial intelligence has on the tourism industry in Europe, with a special focus on the economic effects that are realized through the application of modern technological innovations.

## KEYWORDS

Artificial intelligence, tourism, hospitality industry, sustainability., hospitality industry, sustainability.

## JEL CLASSIFICATION CODES

Z30, O33

# FROM DATA TO IMPLICATIONS: HOW AI AND BIG DATA ARE SHAPING THE FINANCIAL INDUSTRY?

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## ABSTRACT

**Purpose:** This research aims to investigate the impact of Artificial Intelligence (AI) and Big Data on the financial industry, focusing on the possibility of their integration to shape financial services and as a result its implications.

**Design:** It includes a systematic literature review (SLR) and bibliometric analysis to further analyze the constantly expanding literature on the topic. The research inquiries focus on the evolution of the literature, key themes, and implications. The scholarly articles are retrieved from the Scopus database, with search parameters set to encompass the preceding five years, utilizing the Vos Viewer software for analysis.

**Findings:** The results help in achieving better cognizance of the current landscape constituted by AI and Big Data within the finance sector, whilst simultaneously providing key insights for future scholarly investigations and practical implementations regarding this theme.

**Originality:** This paper aims to fill the existing literature gap by offering a comprehensive overview of the AI and Big Data mechanisms that are affecting the financial industry. Having been focused on the last five years the inclusion of both AI and Big Data makes another point of the paper's originality. A detailed focus on existing data to the implications regarding the financial market.

## KEYWORDS

Financial Industry, Big Data, AI, bibliometric analysis, Vos Viewer

# **STOCK MARKET CAPITALIZATION IN THE LONG RUN, AND SOCIAL IMPLICATIONS IN THE SOUTHEASTERN EUROPE COUNTRIES**

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## **ABSTRACT**

Market capitalization has been documented in both economics and financial studies, as one of the most important financial parameters when discussing about the efficiency and health of the most important category of financial markets, as well as economic prosperity. Such importance and implications to economic, financial and social life, has been documented especially after 1980, when there was a tremendous increase of the Marcap to GDP ratio from 0,20 to 1 (in most of the capital markets world-wide, a ratio that was kept persistently high after this date), being however the result of Marcap, instead of GDP increase. The main purpose of this study, apart from identifying the source of increase (attributed mainly to a shift of profits towards the listed companies rather to the issue of new stocks, as it was the case until then), identifies relations between market capitalization and three very important economic indices, namely Gross Domestic Product, Inflation, but most importantly unemployment rate, very important for the prosperity and resilience of a society. Following a methodology that is using also as control variables GDP and inflation, and examining the Southeastern countries of Europe (Greece, Bulgaria, Romania, Serbia, Croatia and Albania), the results indeed indicate that the positive evolution of the market cap in the last 40 years, did not necessarily affect in a positive manner the employment rates, thus economic stability.

## **KEYWORDS**

Market Capitalization, Unemployment, Inflation, Capital Markets

## **JEL CLASSIFICATION CODES**

G10, E24.

# THE DRIVING FORCE OF DIGITALIZATION AND INDUSTRY 4.0 IN ECONOMIC DEVELOPMENT

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## ABSTRACT

Recent global crises, particularly the COVID-19 pandemic, natural disasters, and climate change, have significantly disrupted the economic stability of countries. Even developed nations struggle with economic fluctuations, while the situation for developing and underdeveloped nations is even more challenging. In this context, digitalization presents a substantial opportunity to ensure economic sustainability and strengthen a country's position in the global competitive landscape. Digitalization enables the efficient transformation of key sectors such as industry, services, healthcare, education, and automotive, improving productivity and economic performance.

Digitalization helps businesses reduce costs, optimize processes, and expand market access. In the industrial sector, digitalization enhances production efficiency with fewer resources, while in the service sector, digital technologies improve customer experience and accelerate business processes. Additionally, in healthcare and education, digitalization allows for more accessible and sustainable services, contributing to societal well-being. To maximize the benefits of digitalization in economic development, a transformation aligned with Industry 4.0 principles is essential. Industry 4.0 comprises critical components such as the Internet of Things (IoT), Big Data, Artificial Intelligence (AI), Robotics, Cloud Computing, and Cybersecurity. The integration of these components into industrial processes makes production more flexible, cost-effective, and efficient, enabling businesses to utilize resources optimally and develop a sustainable production model.

Industry 4.0 is transforming economies by integrating advanced technologies that enhance efficiency, productivity, and decision-making. The Internet of Things (IoT) connects machines and devices, allowing businesses to automate processes, monitor operations in real time, and respond quickly to market changes. Big Data and analytics help companies analyze vast amounts of information, optimize resource use, and make smarter, data-driven decisions. Artificial Intelligence (AI) and machine learning improve production quality by detecting errors, predicting maintenance needs, and allowing human workers to focus on strategic tasks. Robotic systems increase efficiency by performing repetitive and complex tasks with high precision, reducing costs, and boosting overall productivity. Cloud computing enables businesses to store and access data remotely, ensuring greater flexibility, collaboration, and scalability without significant infrastructure investments. Meanwhile, cybersecurity plays a crucial role in protecting sensitive data from cyber threats, ensuring safe and stable digital operations for businesses and governments. By leveraging these Industry 4.0 technologies, companies and nations can enhance competitiveness, drive economic growth, and build a more sustainable and resilient future. The effective implementation of digitalization and Industry 4.0 components is one of the most significant driving forces of economic development. Accelerating digital transformation across all sectors and leveraging Industry 4.0 technologies will enhance countries' global competitiveness and resilience against economic crises. For developing nations, this transformation is an inevitable necessity and should be considered a cornerstone of sustainable growth.

## KEYWORDS

Digital transformation, Industry 4.0, economic growth, sustainability, productivity, digital economy.

**JEL CLASSIFICATION CODES**

O00, O14, C80

# UNDERSTANDING COMPLEX SYSTEM DYNAMICS IN FOOD SAFETY GOVERNANCE WITH METHODOLOGICAL IMPROVEMENTS OF DEMATEL

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## ABSTRACT

This work introduces a significant methodological advancement to the Decision-Making Trial and Evaluation Laboratory (DEMATEL) that expands its analytical capabilities while maintaining its practical utility. Although DEMATEL has proven valuable in mapping complex system relationships, we demonstrate how mathematical properties of the total relation matrix can reveal deeper insights into system behavior. Our enhanced framework enables the quantification of system-wide properties including influence propagation dynamics, stability characteristics, and cascade effects. We demonstrate the methodology's practical value through a running example of farmers' participation in food safety governance in rural China, from existing works. Using data from 20 experts in public management and food safety, we analyze 20 key factors across four dimensions: family characteristics, participant characteristics, participation process, and participation environment. The enhanced analysis reveals previously unidentified system properties, including influence clusters and cascade pathways, that complement traditional DEMATEL centrality measures. Conventional DEMATEL identified education level and village cadre status as highly influential factors, yet, our extension uncovers deeper structural patterns in the governance system's dynamics. This enhancement maintains DEMATEL's computational tractability while significantly expanding its analytical capabilities for complex policy interventions. The results provide policymakers with richer insights for strategic planning and system intervention, particularly in contexts where understanding indirect effects and system stability is crucial.

## KEYWORDS

DEMATEL, policy analysis, food safety governance, complex systems, decision support

## JEL CLASSIFICATION CODES

C18, Q18, C44

# WORKPLACE CONFLICT MANAGEMENT: HIERARCHICAL ROLES, IDENTITY FACTORS, AND ORGANIZATIONAL COHESION

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## ABSTRACT

Workplace conflict is an inevitable yet critical aspect of organizational dynamics, significantly influenced by hierarchical structures, identity-related factors, and cultural dimensions. This study investigates the underlying mechanisms of conflict emergence, escalation, and resolution within professional settings, offering evidence-based insights into the role of leadership, informal group structures, and age-related autonomy expectations in shaping workplace disputes. The findings reveal that supervisors frequently encounter power-related conflicts, emphasizing the necessity for structured mediation training and conflict-resolution skill development tailored to leadership roles. Furthermore, employees aged 36–45 demonstrate heightened sensitivity to informal workplace alliances, highlighting the importance of inclusive managerial strategies that bridge subcultural differences and foster organizational cohesion. Additionally, the study identifies a strong preference for autonomy among employees over 56, underscoring the need for flexible and adaptive conflict management frameworks that align with evolving workforce expectations.

In response to these findings, the study advocates for a holistic conflict resolution paradigm incorporating leadership training, participatory decision-making processes, and organizational policies that prioritize inclusivity and equity. By adopting a proactive, multi-layered approach to workplace conflict, organizations can cultivate a culture of transparency, collaboration, and psychological safety, ultimately enhancing employee well-being and optimizing team performance. This research contributes to the broader discourse on organizational behavior by offering strategic recommendations that empower leaders and employees to navigate conflicts constructively, turning potential disruptions into opportunities for growth and innovation.

## KEYWORDS

Conflict Management, Organizational Culture, Workplace Dynamics, Hierarchical Roles, Identity Factors, Inclusivity

# UNLOCKING GROWTH: THE ROLE OF NATIONAL PROMOTIONAL BANKS IN ATTRACTING INTERNATIONAL FUNDING AND PROMOTING ECONOMIC DEVELOPMENT

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## ABSTRACT

**Introduction and Purpose:** National Promotional Banks (NPBs) serve as crucial financial intermediaries, mobilizing resources to address market failures and promote sustainable economic development. By bridging public policy objectives with private investment, they drive capital into key sectors such as infrastructure, renewable energy, digital transformation, and social programs. This study examines the role of NPBs, focusing on Cassa Depositi e Prestiti (CDP) as a case study, demonstrating how these institutions leverage international funding through partnerships with European institutions and international financial institutions (IFIs). The research highlights the significance of governance structures, financial instruments, and strategic mandates in ensuring long-term economic resilience and inclusive growth.

**Materials and Methods:** This study employs a qualitative approach, integrating document analysis, case studies, and expert insights. The analysis focuses on governance structures, financial instruments, and policy interventions of NPBs, with an emphasis on CDP's operational framework. Data collection includes academic literature, policy reports, and international financial publications, examining how NPBs align their investment strategies with global frameworks such as the Sustainable Development Goals (SDGs) and the Paris Agreement.

**Results:** Findings reveal that NPBs effectively align their investment strategies with global development priorities, amplifying their impact on economic resilience and sustainability. The study highlights how CDP has successfully mobilized international funding, leveraging blended finance models, public-private partnerships (PPPs), and innovative financial instruments. However, challenges persist, including political interference, financial sustainability risks, and regulatory complexities that necessitate stronger oversight and institutional reforms.

**Discussion and Conclusion:** NPBs play a pivotal role in addressing systemic financial gaps and fostering inclusive economic growth. The study underscores the importance of strategic financial models that optimize resource allocation while mitigating risks. While CDP exemplifies the effectiveness of NPBs in securing international funding, broader institutional reforms are required to enhance governance transparency and ensure long-term financial sustainability. Future research should explore the expanding role of NPBs in financing emerging sectors, including green finance, digital infrastructure, and circular economy initiatives. As global challenges intensify, NPBs must continue to adapt and innovate, ensuring their role as key actors in fostering resilient and inclusive economies.

## KEYWORDS

National Promotional Banks, Sustainable Development, Blended Finance, Public-Private Partnerships, Economic Resilience, Green Finance, Infrastructure Investment.

# **EUROPEAN HEALTH DATA SPACE REGULATION: A LEGAL FRAMEWORK FOR THE DIGITAL EVOLUTION OF HEALTH CARE SERVICES**

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## **ABSTRACT:**

In January, 2025, the Council of the EU adopted the European Health Data Space Regulation (EHDS). The European Health Data Space (EHDS) is a key initiative of the EU's digital strategy, aiming to enhance EU citizens access to and control of their health data, interoperability of electronic health records across EU and secure a secure, efficient, and ethically sound health data ecosystem in the EU. The EHDS introduces new rights and obligations for individuals, healthcare providers, and data processors, raising critical questions regarding data sovereignty, consent mechanisms, and liability risks. Economically, it presents opportunities for the digital health market, fostering research, AI-driven medical advancements, and cross-border healthcare services. However, challenges such as regulatory fragmentation, cybersecurity risks, and the financial burden of compliance remain key barriers to implementation. This paper provides a conceptual analysis of the EHDS and explores its potential implications for healthcare systems, particularly in enhancing data interoperability and patient-centered care. It assesses the current challenges and highlights how the EHDS balances public health objectives with privacy and data sovereignty concerns, highlighting key legal uncertainties, enforcement challenges, and potential conflicts between EU and national regulations. It aims to provide a comprehensive analysis and insights that policymakers, legal experts, and industry stakeholders a comprehensive framework that stakeholders can utilize to implement effective data-sharing practices, fostering collaboration among healthcare entities and ensuring that patient information is readily accessible when needed.

## **KEYWORDS**

European Health Data Space (EHDS), Health data governance, GDPR, DGA, Digital health economy

## **JEL CLASSIFICATION CODES**

K 32, I18, K33

# MEASURING BANKRUPTCY PROFITABILITY AND LIQUIDITY OF GREEK MUNICIPALITIES BORDERING THE BALKANS DURING THE COVID-19 PANDEMIC.

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## ABSTRACT

The financial viability of Municipalities is crucial for the development and provision of services to citizens. Strengthening the Municipalities fiscal strategy is a crucial factor for the overall development of them. The first purpose of this study is to present solutions to those problems by first evaluating possible bankruptcy of Municipalities Organizations in Northern Greece with bankruptcy models. Secondary it will try measuring the profitability of these Greek Municipalities Organizations using DuPont model. At the end this study will show if there were any problems of liquidity around the time period of the COVID-19 pandemic for those Municipalities using liquidity financial ratios. For this purpose we will use the Springate-Zmijewski models and Altman's Z- Score model for services. The Springate-Zmijewski bankruptcy model, shows the financial risk of a local authority. The DuPont model measures the profitability and also gives an overall picture of the financial leverage ratio it shows if the head managers use rational the government's capital. The liquidity ratios will show if there was a lack of liquidity and how to avoid it. So the first aim of this study is to discover if the examined Municipalities were in the bankruptcy areas in the examined time period. Moreover, this study aims to provide to the administrations of Municipalities with important information on bankruptcy issues by showing the warning signs from which an impending bankruptcy originates. Thus the administrations of Municipalities will be able to take appropriate financial actions to avoid future unpleasant financial situations for municipalities. Second aim of this study is to compare the Municipalities of Northern Greece in terms of profitability and in terms of liquidity. Thus the findings of this study will determine their financial stability, it will identify the financial problems if any and it will propose financial solutions to improve their financial situations. The study was based on data extracted from published financial statements of Greek Northern Municipalities. After the final analysis the study first is going to rank Municipalities according to their financial profitability and liquidity performance. Second the study will categorize the Municipalities according to their results in bankruptcy areas. The first research question of this study is if there was appearances of bankruptcy two years before the COVID-19 pandemic, during two years of pandemic and two years after the pandemic. The second research question of our study is if there was any influence of COVID-19 pandemic to the profitability in the Municipalities Organizations in Northern Greece. The third research question of our study is if there was any lack of lack of liquidity due to the examined time period around COVID-19 pandemic. The findings shows two years after the COVID-19 pandemic there was an improvement of the profitability and liquidity but not in the bankruptcy problems. The study concludes that municipalities that adopt modern fiscal management practices and take timely preventive measures can ensure their sustainability and development. Continuous assessment of the financial performance of local authorities is considered essential to maintain their financial stability and avoid financial crises.

## KEYWORDS

Financial Ratios Bankruptcy Municipalities Organizations

**JEL CLASSIFICATION CODES**

G30, G33, G38

# **ALBANIAN PPP CONTRACTS AS A MEANS FOR PROMOTING ECONOMIC GROWTH AND SOCIAL WELFARE: A STATISTICAL TREATMENT**

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## **ABSTRACT**

The Public-Private Partnerships (PPPs) have become key instruments of economic growth and social welfare in Albania. This paper provides an in-depth analysis of PPPs through theoretical frameworks, legal and institutional structures, statistical evaluations, and their functional relationship with Albania's GDP. Using multiple statistical models, including Cost-Benefit Analysis (CBA), Monte Carlo simulations, and Input-Output analysis, this study investigates the fiscal implications and economic perspectives of PPP projects.

The findings indicate that PPPs significantly contribute to GDP growth, infrastructural development, and efficiency in the delivery of public services, attracting private sector investments. However, financial risk management, inefficiency in governance, and lack of transparency remain as key challenges to overcome. Comparative analysis with other Balkan economies reveals that the Albanian experience follows regional trends, yet further regulatory improvements are necessary to maximize the benefits of PPPs. Future research should explore how artificial intelligence-driven analytics and real-time data methodologies can be integrated to further improve such economic impact assessments for long-term sustainability. Strengthening governance, refining statistical methodologies, and fostering transparency will be vital factors for Albania to make the most out of the benefits accruing from PPPs while mitigating associated risks.

## **KEYWORDS**

Public private partnership; Statistical models; Country development indicators, Risk management.

## **JEL CLASSIFICATION CODES**

H77; O11; O18.

# APPLYING ARTIFICIAL INTELLIGENCE FOR OPTIMIZING ENERGY CONSUMPTION: A PREDICTIVE MODEL ANALYSIS

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## ABSTRACT

As energy demand continues to grow and the transition towards sustainable consumption gains momentum, there is a growing need for advanced tools to improve energy management. This study aims to forecast energy consumption in Central and Eastern Europe for 2025 using artificial intelligence (AI) methods. The research uses historical data from 2015 to 2024, extracted from sources such as Eurostat and IEA, covering countries such as Romania, Poland and Hungary. Machine learning algorithms, including regression models, are used to analyze consumption patterns and develop a predictive model.

In addition, a web application is built to allow users to visualize past consumption trends and derive forecasts of future consumption based on the AI analysis. Preliminary results indicate that the model has significant potential for accurate energy demand forecasting, which can help stakeholders make data-driven decisions on resource planning and efficiency improvements.

This research highlights the growing importance of AI in the energy sector and provides a practical solution for improving forecasting and decision-making processes in energy management across the region.

## KEYWORDS

Artificial Intelligence, Energy Consumption Prediction, Machine Learning, Predictive Modeling, Energy Management

## JEL CLASSIFICATION CODES

Q47, C53

# THE COLLABORATIVE SOCIETY AND NEW SOCIAL MODELS

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## ABSTRACT

This paper examines the Collaborative Economy, focusing primarily on the study of common property, its historical evolution, and its legal framework, with particular attention to the transition from commons—governed by medieval “Civic Uses” or “Regulae”—to the emergence of private property. A key driver of the Collaborative Economy is the revolution in communication technologies, particularly the Internet, which has fostered a wide range of new relationships, not only social but also economic. This transformation is cross-cutting, affecting all dimensions of social life, underlying economic interactions, and various sectors, including commerce, tourism, entertainment, and healthcare. Beyond economic considerations, this analysis integrates additional perspectives. The author argues that a purely economic viewpoint is overly reductionist, as it overlooks an essential anthropological factor: how human beings develop self-awareness. This aspect is linked to the discovery of “Mirror Neurons” and the fundamental role of “empathy” in human interactions — not only in personal relationships but also in shaping human engagement with the broader world and different contexts. To this end, the paper briefly defines empathy and provides examples of its manifestations in language and daily experience. These two transformative forces—technological and media advancements on one hand, and anthropological shifts on the other—carry significant legal implications. Specifically, the author contends that the concept of “property” is undergoing a profound transformation. Once a standardized and unified legal institution, property is now fragmenting as technological developments redefine its functions. Many of these functions are integrated into, interact with, or even depend on technological networks. This shift increasingly centers the concept of property around “Usage” rather than exclusive ownership. For instance, a latent conflict is emerging between “Privacy” and “Usage”, where ensuring the functionality of technological systems often comes at the expense of privacy. This raises the need for regulatory frameworks that balance system efficiency with the protection of personal data, as well as the corresponding rights to individual freedom and self-expression. Another significant impact of technology is the dissolution of traditional “spatial and temporal boundaries”, with far-reaching effects on social interactions, communication, public perception (and consequently, public opinion formation and decision-making), and economic networks—most notably, global “Value Chains”. According to the author, these systemic transformations are “irreversible” and are driving a radical shift in society. Public policies are also evolving, reflecting an increasing “blurring of lines between public and private spheres”. There is a growing recognition of corporate social responsibility, alongside new governance models that incorporate functions and sensitivities traditionally associated with the public sector. The author encapsulates these profound shifts in the concept of a “Collaborative Society”, emphasizing that this transformation is already underway. Society has fundamentally changed, yet we have yet to develop adequate analytical tools, regulatory frameworks, or governance models that fully comprehend and address these evolving dynamics.

## KEYWORDS

Economy, Collaborative Economy, Anthropology, Mirror Neurons, Commons, Civic Uses, Property, Usage, Technology, Public Opinion, Social Organization.

# THE EVOLUTION OF GREECE'S ENERGY MIX DURING DELIGNITIZATION: AN OPPORTUNITY FOR THE FUTURE OR A PREMATURE MOVE?

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## ABSTRACT

Greece's energy transition, particularly the phase-out of lignite, represents a major shift in the country's energy and economic landscape. For decades, energy mixes in Greece were relatively homogeneous and the transition from one source to another was incredibly slow as lignite was the backbone of Greece's electricity generation. This study examines how Greece's energy mix has evolved, particularly the increasing role of natural gas, hydroelectric power and renewable energy sources (RES) as the decline of lignite has forced the country to rethink its energy strategy and to face urgent need for improvements in energy storage technology. Greece has demonstrated a strong commitment to reducing its dependence on lignite and set ambitious targets aiming for 82% of electricity generation to come from RES by 2030. This aligns with broader European Union objectives to cut greenhouse gas emissions by at least 55% within the same time frame. To assess this transition, the study uses a mixed-methods approach, analyzing data from the past two decades to highlight whether this transition will reach goals of sustainability or not. Initial findings show that although the country has made great progress in expanding renewable energy, the rapid reduction of lignite—without adequate large-scale storage and a diversified energy supply—has increased Greece's reliance on imported natural gas which combustion results in low emissions compared to the combustion of other fossil fuel sources of coal. This raises concerns about energy security and price fluctuations that are no longer based on the actual situation of supply and demand but in more comprehensive factors. The shift toward natural gas as a transitional fuel presents both benefits and risks as gas-fired power plants offer the flexibility needed to complement the fluctuations of RES but growing reliance on imported natural gas raises energy security concerns and create economic instability. Additionally, regions with a long history of using lignite for the purpose of energy provision such as Western Macedonia, face significant socioeconomic challenges. These issues call for urgent, targeted policies to support social groups and ensure a fair transition as except technical and economic problems, delignitization has far-reaching social implications. In areas like Western Macedonia, where lignite mining was a key economic driver, job losses and economic uncertainty pose significant challenges. A just transition requires well-designed policies that focus on workforce retraining, the promotion of new productive investments and sustainable jobs. Without such measures, the transition risks deepening social inequalities and leaving vulnerable communities behind. The paper must have an abstract. The abstract should be self-contained and understandable by a general reader outside the context of the paper. Abstracts should be up to 500 words.

## KEYWORDS

Environmental policy, Energy law, decarbonization, post lignite era, natural resources, water

JEL CLASSIFICATION CODES Q2, Q4, Q5

# **LEGAL PERSONHOOD AS AN ACCELERATOR OF THE GLOBAL ECONOMY AND THE IMPLICATIONS FOR LOCAL DEMOCRACIES**

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As Harari very aptly observed, "Humans differ from other animals because they have imagination, the proof being the legal entities which in reality exist only in an imaginary world." Indeed, legal persons exist only because national legal orders recognise their existence. Despite the fact that they are the leading institution used by the global economy (companies undertake investment, trade, and all these economic activities), in reality, their existence is based only on the will of States since no international legal text proclaims or recognizes this institution. In other words, it is a well-established practice with little jurisprudential or theoretical elaboration, which is limited to the assumption that legal persons have the rights and obligations appropriate to their nature. Through this assumption, legal persons ultimately end up enjoying greater freedoms and being in a more favorable position even in the event of a violation of law and the imposition of criminal sanctions. The purpose of this study is to highlight the weaknesses of the current framework and propose solutions to address them.

# **HOW POLITICAL ENVIRONMENTS AND INSTITUTIONAL DEFICIENCIES UNDERMINE BUSINESS GROWTH AND ECONOMIC DEVELOPMENT**

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## **ABSTRACT**

The political environment and the functionality of democratic institutions play a crucial role in shaping business operations and economic growth. In nations plagued by widespread corruption and ineffective democratic processes, instances of tax evasion and avoidance tend to rise, adversely affecting business development and economic progress. Empirical evidence indicates that countries with frail institutional frameworks—characterized by high corruption levels, extensive bureaucracy, and sluggish judicial processes—experience detrimental effects on business growth and development. Such institutional deficiencies result in ineffective investment strategies and hinder the establishment of robust enforcement mechanisms. Furthermore, the pressures exerted by the political climate on financial institutions, coupled with a lack of effective regulatory controls, often lead to a diversion of investment funds from productive business activities to consumer spending and unproductive ventures. The international literature underscores that an unfavorable institutional framework can dissuade serious business engagement and foster an unpredictable investment climate.

## **KEYWORDS**

Governance, Democracy, Institutions, Economic Progress, Growth.

## **JEL CLASSIFICATION CODES**

E02, E60, H00

# EXPLORING THE OPTIMAL DEBT RATIO: A THEORETICAL FRAMEWORK FOR CAPITAL STRUCTURE DECISIONS

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## ABSTRACT

The determination of an optimal capital structure remains a pivotal issue in corporate finance, evolving from the Modigliani-Miller (1958) theorem, which asserts that, under perfect market conditions, a firm's financing mix is irrelevant to its value. However, real-world market frictions such as taxes, bankruptcy costs, and asymmetric information challenge this assumption, necessitating a deeper analysis of the debt-equity composition that maximizes firm value while minimizing capital costs. This study examines the interplay between debt capacity and optimal capital structure, questioning whether firms can achieve an ideal financing mix or if borrowing constraints imposed by lenders inherently limit financial flexibility.

Utilizing a probabilistic framework based on Telser's safety-first criterion, this research models capital structure decisions by incorporating return distribution properties and default risk thresholds. The optimization problem is formulated using Lagrange multipliers to establish conditions under which firms maximize returns while adhering to financial constraints. The findings suggest that the optimal debt ratio is dictated by the trade-off between tax benefits and financial distress costs, with firms strategically balancing leverage to avoid excessive risk exposure.

This study contributes to the ongoing discourse on corporate financing by offering a structured mathematical approach to estimating the optimal debt ratio. The proposed framework provides theoretical insights into capital structure behavior in environments characterized by uncertainty, lending constraints, and risk aversion, offering practical implications for financial decision-making.

## KEYWORDS

Capital structure, Optimal debt ratio, Debt capacity, Financial constraints, Bankruptcy costs, Mean-variance analysis

## JEL CLASSIFICATION CODES

G32, G33, G12

# DIGITAL TRANSFORMATION AND SOCIETY 5.0 IN A POST-COVID 19 PANDEMIC ERA

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## ABSTRACT

Digital transformation has gone beyond being a technological trend today and has become a process that deeply affects social and economic dynamics. Digital transformation can be defined as the restructuring of an organization or society's business practices, processes, culture and customer experience with digital technologies. In other words, digital transformation can also be defined as the cultural, organizational and operational change of an organization, industry or ecosystem through the gradual and strategic intelligent integration of digital technologies, processes and competencies at all levels and functions. For many years, various strategies have been developed worldwide to accelerate digital transformation processes and implement technology-based innovations. The COVID-19 pandemic has been a reason for accelerating this transformation process. During the pandemic, physical distance requirements and logistical restrictions forced businesses, educational institutions and healthcare services to quickly transition to digital platforms. Digital transformation efforts that accelerated during the pandemic have also made a significant contribution to Society 5.0, because a society strengthened by digitalization has the potential to create a more sustainable and integrated structure by increasing the quality of life of individuals. Digital transformation ensures more efficient use of resources in a wide range from smart cities to digital health services, innovative solutions in education, IoT applications in agriculture and artificial intelligence technologies, and increases everyone's living standards. In this way, it is expected to provide a framework that responds to the needs of individuals and solves social problems by creating a participatory and human-focused ecosystem that can be accessed by all segments of society.

The concept of Society 5.0, pioneered by Japan, offers an innovative perspective on how technology can improve human life. While Industry 4.0 brings digitalization and automation to the forefront, Society 5.0 aims to go beyond these technologies and improve people's quality of life, increase social welfare and solve social problems by focusing on different verticals. To this end, it encourages the balanced development of the economy, social life and the environment by providing deeper cooperation between humans and machines through technological integration.

Within the scope of this study, the question of 'What kind of a basis should be created in the process of digital transformation and adaptation to the Society 5.0 vision after the covid19 pandemic in Turkey?' was discussed. Technological developments play a decisive role in the development process of nations and are also seen as a fundamental element in increasing the living standards and general welfare of countries. The use of advanced technologies allows for increased efficiency, encourages innovation and enables more effective use of existing resources. At the end of the study, it was concluded that Turkey's young and dynamic population can be the driving force of the Society 5.0 transformation when equipped with the right education and digital skills.

## KEYWORDS

Society 5.0, digital transformation, industry 4.0, covid-19 pandemic.

## JEL CLASSIFICATION CODES

M15, O33

# **CLIMATE RISK, VOLATILITY RISK AND GREEN CORPORATE BOND PRICING IN GREECE.**

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## **ABSTRACT**

Taking into account the existence of connectedness and spillovers of climate risk with corporate green bonds in Greece (Tsagkanos and Mitropoulos 2025), in this study we examine the impact both of volatility and climate risk on expected green corporate bond returns in Greece by using transactional data from 2019 to 2024. We formulate two main theoretical hypotheses with different approach regarding the short-term and long-term period while we adopt the Fama-MacBeth regression. The results by Fama-MacBeth regression shows that both volatility and climate risk have a negative impact on expected corporate bond returns. We move one step further incorporating 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). Thus, we construct a new five factor pricing model for green corporate bonds. The most important result is that the effect of volatility factor remains negative but the climate risk factor now achieves positive effect. The 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. Furthermore, our results consist of a signal for potential investors that the inclusion of Greek corporate green bonds in their portfolio will offer a reduction of their investment - climate risk short-termly. However, the signal concerns also the policymakers that should adopt proper strategies to the best climate risk management. Such strategies will lead to a more rational management of climate risk in the future.

## **KEYWORDS**

Corporate Green Bonds, Climate Risk, Volatility Risk, Five Factor Pricing Model.

## **JEL CLASSIFICATION CODES**

C11, G10, G11, Q50

# "THE IMPACT OF DIGITALIZATION ON AUDITING PRACTICES: A SYSTEMATIC LITERATURE REVIEW ON AUTOMATION, BLOCKCHAIN, AND BIG DATA ANALYTICS"

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## ABSTRACT

### Purpose:

This systematic literature review aims to explore the impact of digitalization on auditing practices by synthesizing insights from 130 peer-reviewed articles. The review focuses on how automation technologies, blockchain, and big data analytics are transforming audit processes and reshaping the profession.

### Design/Methodology/Approach:

The review employs a systematic approach to identify, evaluate, and categorize the literature into three core themes: (1) Automation and Process Optimization, (2) Blockchain and Transparency, and (3) Big Data and Predictive Analytics. The articles selected for this review were published in high-impact journals and provide comprehensive insights into how these digital technologies are being integrated into audit practices.

### Findings:

The review reveals that automation technologies like AI, machine learning, and RPA are significantly enhancing audit efficiency by reducing manual tasks and improving accuracy. Blockchain technology, though in the early stages of implementation, is positioned to ensure greater transparency and security in audit trails, but faces challenges related to scalability and standardization. Big data analytics has emerged as a powerful tool for audit risk assessment, enabling auditors to detect fraud, identify anomalies, and gain real-time insights into audit engagements. Despite these advancements, challenges such as regulatory uncertainty, cybersecurity risks, and limited empirical studies hinder broader adoption.

### Research/Limitations/Implications:

This review is based on available literature and does not include unpublished studies or research from non-peer-reviewed sources, which may limit the scope of insights. Additionally, the review primarily focuses on theoretical and conceptual frameworks, with limited empirical data available to validate some of the claims. Future research should aim to explore these gaps empirically, particularly in the areas of ethical concerns, regulatory frameworks, and real-world adoption of digital auditing tools. This review also suggests that the development of frameworks for integrating digital tools into auditing standards, education, and practice is crucial for the evolution of the profession.

## KEYWORDS

Digitalization, Auditing, Artificial Intelligence, Blockchain, Big Data

**JEL CLASSIFICATION CODES:** M42

# **A SYSTEMATIC LITERATURE REVIEW OF PRO-ENVIRONMENTAL BEHAVIOUR THROUGH THE LENS OF SOCIAL – PSYCHOLOGICAL BEHAVIORAL THEORIES**

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## **ABSTRACT**

Environmental behavior is defined as any action taken by an individual to minimize the negative impacts of their actions on the natural environment. This study provides a comprehensive overview of the socio-psychological theories that define people's environmental behavior in various research fields. Based on a selected literature review, the methodologies of social psychology are analyzed. In this way, it enhances our knowledge of how a change in an individual's behavior arises in relation to the environment and what are the factors that influence it, in specific fields of application. Specifically, the review evaluates four methods: the Theory of Planned Behavior, Norm Activation, Value Belief and Social Cognitive Theory. Their advantages and disadvantages in terms of environmental behavior are studied and gaps in their areas of application are highlighted. All these theories, developed with different theoretical frameworks, have been observed to be able to predict the intention for environmentally friendly behavior in activism, work, recycling, tourism, energy, transport, water use, climate change, pollution and consumption of goods. Any attempt to understand environmental behavior requires measurement tools to evaluate it. A variety of tools have been developed for this purpose, such as questionnaires, field observations, individual reports, laboratory experiments and software programs. Despite extensive research using various theoretical frameworks, there is a shortage of application data in the specific field of forest ecosystems. This study provides a strong basis for a more comprehensive approach to environmental behavior in forest science and contributes significantly to enriching the relevant literature.

## **KEYWORDS**

Pro-environmental behavior, Behavioral Theories, Literature review, Measurement, Nature environment.

# OBJECT DETECTION IN MACHINE LEARNING

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## ABSTRACT

Nowadays, with all the great technological developments, object detection has become a key aspect of computer vision. Object detection has a significant impact on areas such as autonomous vehicles, security, surveillance, and safety. One of its applications is the detection of violent and dangerous behaviors in urban environments. This is due to the increasing need for automated surveillance systems capable of making decisions in real-time. Despite the advancements in deep learning, including Convolutional Neural Networks (CNNs) and real-time detection models like YOLO (You Only Look Once), applying these technologies to violence detection presents unique challenges. The complexity of human actions, the variability of environmental conditions, and the necessity for rapid response times make detecting aggressive behavior particularly difficult.

Unlike more straightforward actions such as walking or running, the detection of aggressive behaviors and fights has not received as much attention but remains critically important in contexts such as video surveillance in prisons and mental health centers. This paper addresses these challenges, focusing on object detection as a core aspect of machine learning and computer vision. It explores advanced algorithms, such as CNNs, that have revolutionized object identification in images and videos, enabling a range of practical applications.

This paper aims to develop an advanced system for detecting violence in urban public spaces using object detection techniques in machine learning. By utilizing video data to train specialized models, the system seeks to automatically identify violent scenarios in real time, contributing to improved security and surveillance in urban environments. The integration of the latest object detection algorithms and video processing techniques offers a powerful tool for preventing and managing violent incidents, ultimately making it easier to identify and respond to dangerous situations.

Additionally, the paper introduces Clean Architecture as a fundamental approach to structuring software development. It demonstrates the steps and methods for building applications using this architecture, providing a blueprint for creating efficient and scalable solutions within the context of violence detection systems.

The experimental results presented show the effectiveness of the proposed approach, highlighting its superiority over existing methods. This research paves the way for practical applications of object detection in urban environments, enhancing the capabilities of security and surveillance systems.

## KEYWORDS

violence detection, deep learning for surveillance, real – time video analysis, object detection in security, computer vision for crime prevention, clean architecture with python

## JEL CLASSIFICATION CODES

030

# THE RELATIONSHIP BETWEEN SECTORAL FOREIGN DIRECT INVESTMENT AND SUSTAINABLE DEVELOPMENT IN THE NEW EU MEMBER STATES

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## ABSTRACT

The EU strategy emphasises the need for a green transformation of economies in order to achieve the Sustainable Development Goals, also with regard to the inflow of foreign direct investment (FDI). The aim of this paper is to determine the relationship between FDI sectoral structure and sustainable development in the new EU Member States using a panel data analysis. The sample comprises 11 newly acceded so-called post-transition countries. In contrast to a number of studies, the focus of this paper is on the realisation that foreign direct investment has a different impact on sustainable development in different sectors. The contribution of this study is therefore to design a new policy to attract foreign direct investment.

ANS (adjusted net savings) is used as the dependent variable as a proxy for sustainable development. In contrast, the sectoral structure of FDI, total FDI inflows, GDP per capita, financial development, trade openness and rule of law are used as independent variables.

The panel data analysis confirms that a positive and statistically significant influence of GDP per capita on the dependent variable of adjusted net savings and on the variable of total FDI as a percentage of GDP can be observed in all panel models analysed. The same result can also be interpreted indirectly via the variables of the sectoral structure of FDI, whereby it is noticeable that the variable of FDI in the tourism sector has a more significant economic influence on adjusted net savings than the variables of FDI in the manufacturing sector. In addition, the independent variables of authorised domestic credit to the private sector (in % of GDP) and the trade openness variables in the estimated models showed a persistent negative or positive influence on the dependent variable.

## KEYWORDS

New EU Member States, Foreign Direct Investment, Sustainable Development, Panel Data Model

# COMPREHENDING INTRADAY COMMUTING PATTERNS: EVIDENCE FROM ANKARA, TÜRKİYE

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## ABSTRACT

Understanding urban mobility patterns is crucial for effective urban and transportation planning. Urban mobility is often represented by a characteristic network structure, where the natural properties of networks enable the exploration of scaling laws within intra-urban mobility. Within this framework, the concept of “space of flow” has gained increasing prominence in human mobility and urban studies. As a core component of urban complex systems, the “space of flow” paradigm highlights how human activities and travel behaviors facilitate interactions across urban spaces, influencing the flow of various elements. This dynamic contributes to the formation of a complex network in which places act as nodes and flows function as links. Thus, understanding urban systems from the perspectives of human mobility and network structures is vital in the information age. Recent studies have demonstrated that residence and work are the most significant daily activities, exhibiting strong spatial patterns. This study aims to examine intraday commuting patterns in Ankara, Türkiye, and the factors shaping these patterns. A household survey was conducted across Ankara's urban area using simple random and stratified sampling techniques. By employing clustering techniques, the study identified distinct intraday commuting patterns within the city. Our analysis revealed three primary clusters: a central business district, residential areas, and a hybrid cluster. These clusters highlight the diversity of mobility demands across different urban areas. Furthermore, socioeconomic determinants influencing the commuting behaviors of individuals were analyzed, providing valuable insights into variations in travel patterns. The findings emphasize the significance of intraday mobility data for transportation planning, offering critical guidance for optimizing infrastructure utilization. Identifying diverse commuting patterns and their underlying socioeconomic drivers underscores the practical implications of our methodological advancements in shaping more effective and efficient transportation planning strategies.

## KEYWORDS

Urban mobility, intraday commuting patterns, space of flow, complex network

## JEL CLASSIFICATION CODES

L91, D10, R41

# RECONSIDERING INDUSTRIAL LANDSCAPES: SUSTAINABLE SITE SELECTION STRATEGIES IN METROPOLITAN BURSA, TÜRKIYE

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## ABSTRACT

This study explores innovative approaches to site selection for industrial development in the highly industrialized metropolitan area of Bursa. As the city faces the dual challenges of industrial growth and environmental sustainability, the paper emphasizes the importance of integrating sustainable site selection principles into the planning process. Within this context, the study aims to employ predictive modeling approaches utilizing GIS, which enable researchers to simulate various scenarios and analyze potential outcomes based on existing data. A comprehensive analysis is conducted, ranging from regional levels to urban spatial details, investigating the relationships between urban uses, spatial trends, and developmental dynamics. By analyzing existing industrial zones and evaluating potential sites through sustainability metrics, the research identifies key strategies that balance economic development with environmental stewardship. Engaging local stakeholders in the planning process fosters a sense of community ownership and ensures that development aligns with the region's social and environmental goals. Ultimately, this work seeks to propose a spatial organization model for the industrial manufacturing sectors, considering the development of urban macroform and providing policy recommendations to Bursa Metropolitan Municipality. The aim is to enhance sustainable urban development and optimize industrial landscape planning, fostering a future that prioritizes both economic vitality and ecological integrity.

## KEYWORDS

Industrial site selection, sustainability, urban development, Bursa

## JEL CLASSIFICATION CODES

R11, R14, Q01

# THE IMPACT OF ARTIFICIAL INTELLIGENCE ON MANAGEMENT PROCESSES IN THE HEALTHCARE SECTOR: A LITERATURE REVIEW

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## ABSTRACT

In recent years, technological advancements and innovations have profoundly transformed various sectors, with healthcare experiencing a radical shift in service organization and care delivery. The focus has been on optimizing time and costs for patients while enabling personalized treatment. Changing demographic conditions and the social context, particularly following the COVID-19 pandemic, have necessitated a revision of healthcare systems to address new needs, care settings, and, most importantly, the potential benefits of technological progress.

The modernization of public healthcare systems has led to increased investments, the introduction of new practices (Hood, 1991), and the widespread adoption of innovative technologies. Healthcare is among the most promising sectors for applying advanced technological solutions (Massaro, 2021; Davenport & Kalakota, 2019), particularly artificial intelligence (AI). AI integration offers significant benefits from medical, managerial, and organizational perspectives, including reducing therapeutic errors, enabling de-hospitalization through community-based care, forecasting administrative costs (Sundström, 2024), and facilitating remote care management (Dicuonzo et al., 2023).

The integration of Artificial Intelligence (AI) into healthcare management has significantly reshaped operational processes, enhancing efficiency, decision-making, and cost-effectiveness (Cao et al., 2021). As healthcare systems face increasing challenges, including rising costs, resource constraints, and the demand for personalized patient care, AI-driven solutions offer transformative potential (Bohr & Memarzadeh, 2020). This literature review aims to explore the role of AI in optimizing management processes within healthcare organizations, with a particular focus on cost forecasting, resource allocation, and workflow automation. Key AI technologies, such as machine learning, predictive analytics, and natural language processing, are examined for their ability to improve administrative efficiency, reduce errors, and streamline patient flow. Additionally, the review highlights ethical, regulatory, and technical challenges associated with AI adoption, emphasizing the need for strategic implementation to maximize its benefits. We expect that while AI presents significant opportunities for improving healthcare management, successful integration requires addressing interoperability issues, data privacy concerns, and workforce adaptation. This review aims to contribute to the ongoing discourse on AI-driven innovation in healthcare, providing insights for policymakers, practitioners, and researchers aiming to leverage AI for more sustainable and effective healthcare management.

## KEYWORDS

Artificial Intelligence, Healthcare Management, Predictive Analytics, Resource Optimization, Digital Transformation

# STUDY ON THE IMPACT OF BIOFUEL PRODUCTION AND USE ON AGRICULTURAL MARKETS AND THE ENVIRONMENT

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## ABSTRACT

In this paper, the authors had as their main objective the impact that the production and use of biofuels has on agricultural markets and on the environment. Both at the European Union and worldwide level, there are concerns regarding the reduction of greenhouse gas emissions and one objective in this regard is the production and use of renewable energy sources, which are more environmentally friendly. A solution in this regard is the use of conventional and advanced biofuels, the latter having a lower impact on pollution, being obtained from plant materials without a use as food, in other words residual biomass. Energy crops for the production of conventional biofuels have some negative consequences on the environment by replacing natural ecosystems with monoculture, which can lead to soil erosion, lowering water levels, pesticide pollution and others. In this regard, we mention the fact that significant amounts of water are required for the production of biofuels, which would put pressure on water resources, especially in arid regions. On the other hand, growing common crops for biofuel production can even improve soil quality and prevent erosion, if sustainable agricultural practices are used. Thus, the authors considered in this research both the direct impact of biofuel production and use in terms of reducing greenhouse gas emissions, as well as the indirect impact with social and economic consequences. In this sense, the production of biofuel feedstock on arable land and pastures causes indirect land use changes, an aspect that was addressed in this research. Another important aspect is the impact that biofuel production and use has on the prices of agricultural commodities. In this sense, the use of agricultural land for biofuel production can reduce food production, which has the effect of increasing the prices of agricultural products intended for food. Consequently, the paper highlights the impact that the production and use of conventional and advanced biofuels has on agricultural product prices, deforestation and land use, climate change and last but not least on economic growth and energy security. Of course, the use of biofuels can reduce oil and gas imports and consequently has as a secondary effect an increase in the energy security of producing countries. At the same time, the paper draws attention to the fact that a balanced management of biofuels production and use, with an emphasis on soil protection through sustainable agricultural practices and appropriate policies, which aim to minimize negative effects, will be the path to a sustainable energy transition. Also, in order to highlight both the developments and the correlations between the analyzed variables, the authors used static-econometric tools, using in this sense some methods and models such as comparative analysis, dynamic study, index method, multivariate analysis method, processing in this sense the data series taken from authorized bodies from the last 20 years.

## KEYWORDS

biofuels, agriculture, environment, energy transition.

## JEL CLASSIFICATION CODES

Q16, Q20.

# SUSTAINABILITY CHALLENGES OF FINANCIAL SECTOR – ROMANIAN PERSPECTIVE

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## ABSTRACT

The importance of CSR among companies is well established and all major companies used a generous amount of time, effort and money to provide transparent disclosure about the activities conducted in this regard. CSR made its way into the financial sector as a way to protect against the danger posted by financial scandals and falling reputation of banks. Corporate Social Responsibility (CSR) in the financial sector has surfaced as a crucial component of sustainable business practices, reflecting the rising expectations for financial institutions to contribute positively to society over their economic functions. CSR became of high interest for Romanian companies in the last decade. The integration of CSR is also driven by regulatory pressures from EU level, by stakeholders demands and the recognition of the sector's significant influence on economy and society. As a result, companies started to prepare Annual Sustainability Reports. Despite the progress, challenges remain in aligning CSR with financial performance, ensuring transparency, and overcoming greenwashing. Romania Corporate Sustainability & Transparency Index (CST index) is calculated by The Azores Sustainability & CSR Services every year. The methodology of the index is very complex and is composed of 78 indicators grouped in 11 categories consisting in 201 datapoints. The 11 categories are: corporate governance, diversity, economic impact, climate change, environment, human rights and anti-corruption policy, responsible employer, goods and responsible marketing, community's investments, supply chain and material aspects.

The present paper analyses the top reports from financial sector as they were ordered by the Romania CST Index 2023. The aim of the study is to identify the main directions where CSR is moved in Romania, the standards used to report these achievements and the tools used. CSR gains more and more traction in becoming a more and more essential to every business that wants to be responsible towards the environment and society where its doing business. To gain the maximum efficiency from CSR activities they must be reported to the public in a standardized manner. The main driver towards the further development of CSR is represented by the regulations imposed by national and international institutions.

In the case of the analyzed companies, it was observed that for the ones using GRI standards, the flow and quality of the information was more complex and easier to understand. Also, using the same standard, makes the information more useful for comparisons between companies from the same sector or between entire sectors.

## KEYWORDS

CSR, Financial Sector, Banks, Credit Institutions, GRI Standards

## JEL CLASSIFICATION CODES

M14, G20

# A COMPARATIVE TAX POLICY APPROACH: GREECE AND IRELAND

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## **ABSTRACT**

Tax revenues are the main source of funding for the state budget. According to conventional theory, an effective tax system should be capable of raising sufficient revenues with the least possible distortions regarding recourse allocation and socioeconomic inequalities. The aim of this article is to perform a cross country analysis of the Greek and Irish tax systems. The main strengths of the Greek and Irish tax systems are lower-than-OECD-average rates of corporate income tax and net personal tax for Greece and low corporate tax rates for Ireland. Correspondingly, the major weaknesses for both countries are that their VAT rate is one of the highest in the OECD area. Moreover, the analysis of the indices showed that, compared with the Greek tax system, the Irish one is more effective, less competitive, less complex, with a lower cost of compliance for Irish firms in case of potential VAT changes.

## **KEYWORDS**

Tax Policy, Tax Effectiveness, Optimal Taxation, Greece, Ireland

## **JEL CLASSIFICATION CODES**

H0, H20, H25

# **CRYPTOCURRENCIES AS AN ASSET CLASS IN MODERN INVESTMENT PORTFOLIOS**

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## **ABSTRACT**

Cryptocurrencies, especially Bitcoin, have emerged as a transformative asset class with the potential to redefine the modern investment portfolios. This study seeks to evaluate the role of Bitcoin as a diversification tool by examining its risk-return characteristics, its correlation with traditional asset classes such as equities, bonds and commodities, and its impact on portfolio efficiency. Utilizing historical returns data from 2015-2024, the study intends to employ a range of statistical and econometric techniques including correlation analysis, portfolio optimization based on Markovitz mean-variance framework, and Monte Carlo simulations, to assess the contribution of Bitcoin to risk-adjusted returns.

The study anticipates that Bitcoin will exhibit low or negligible correlation with traditional assets, thereby offering significant diversification benefits. However, due to its volatility, it is expected that the optimal allocation to Bitcoin will remain modest to achieve a balanced risk-return profile. Furthermore, the study will examine the extent to which the inclusion of Bitcoin in a traditional portfolio will enhance the Sharpe ratio, particularly during periods of market stress.

This research is expected to contribute to the growing body of literature on digital assets by providing empirical evidence on the role of Bitcoin in portfolio diversification. The findings are likely to offer practical insights for both individual and institutional investors, highlighting the potential benefits and challenges of integrating cryptocurrencies into investment frameworks.

## **KEYWORDS**

Cryptocurrencies, Portfolio Diversification, Bitcoin, Risk-return Analysis, Asset Allocation.

## **JEL CLASSIFICATION CODES**

G11, G15, G32.

# DIGITAL INTELLIGENCE EMPOWERMENT: HOW SMART MANUFACTURING DRIVES INNOVATIVE UPGRADING IN SUPPLIER ENTERPRISES

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## ABSTRACT

Against the backdrop of accelerated global industrial digital transformation, smart manufacturing has emerged as a groundbreaking paradigm characterized by digital-intelligent supply chain integration, offering innovative solutions to mitigate technological lock-in and collaboration inefficiencies among supplier enterprises. This study investigates how smart manufacturing adoption drives technological upgrading in supplier networks by leveraging China's Smart Manufacturing Pilot Demonstration Initiative as a quasi-natural experiment. Employing a multi-period difference-in-differences (DID) design, we systematically analyze panel data from A-share listed manufacturing firms in China (2013–2023), incorporating staggered policy implementation timelines to enhance identification robustness. Three principal findings emerge: First, smart manufacturing implementation generates substantial knowledge spillover effects that significantly enhance supplier enterprises' innovation capabilities. Second, knowledge diffusion mechanisms within supply chains serve as the primary transmission channel, facilitating cross-organizational learning and collaborative innovation. Third, the policy impact exhibits pronounced heterogeneity across geographical regions, enterprise ownership structures, and industries, suggesting contextual dependencies in innovation ecosystem development. This research contributes to the literature through three key aspects: (1) developing an analytical framework that bridges digital transformation with supply chain innovation ecosystems, (2) identifying and verifying knowledge spillover effects as the critical mediator through systematic mechanism analysis, and (3) providing empirical evidence to inform context-sensitive policy design for smart manufacturing implementation. The findings offer practical implications for policymakers to formulate differentiated digital transition strategies and for enterprises to optimize supply chain collaboration mechanisms in technology upgrading initiatives.

## KEYWORDS

Smart Manufacturing, Digital Supply Chain, Knowledge Spillover, Quasi-Natural Experiment, Technology Upgrading, Difference-In-Differences Model

## JEL CLASSIFICATION CODES

O25,O47,O53

# COMPARATIVE ANALYSIS BETWEEN INVESTMENT LEVELS IN THE HEALTHCARE SECTOR IN WESTERN AND EASTERN EUROPE AND ITS IMPACT ON QUALITY OF LIFE

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## ABSTRACT

This study examines the disparities in healthcare investment levels between Western and Eastern Europe and their impact on quality of life. Historically, Western European economies have maintained higher and more consistent healthcare investments, whereas Eastern European countries have faced economic and systemic constraints limiting their healthcare sector development. Our research assesses the extent to which healthcare investment influences quality of life by analyzing key variables. The independent variable in our analysis is the allocated healthcare budget, while the dependent variables include access to medical facilities, the number of hospitals per capita, and the affordability of healthcare services relative to minimum and median wages. The analysis uses Pearson's correlation coefficient to examine the linear relationship between healthcare investment and quality of life indicators, followed by multiple linear regressions to model the impact of healthcare investment on these variables. The analysis covers the period from 2000 to 2021 and includes predictive modeling for future trends based on current investment trajectories. Our findings contribute to the academic literature on healthcare economics and provide insights into policy measures that could optimize healthcare investment strategies.

## KEYWORDS

Healthcare investment, healthcare economics, healthcare access.

## JEL CLASSIFICATION CODES

C10, I15, O52

# **THE EXTENT OF DIGITAL ILLITERACY IN GREEK COMPANIES AND ITS IMPACT ON COMPLIANCE WITH MANDATORY E-INVOICE SUBMISSION: A CASE STUDY IN THE PREFECTURE OF CENTRAL MACEDONIA**

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## **ABSTRACT**

The rapid increase in digital obligations in Greek businesses, such as compliance with the electronic transmission of accounting documents, highlights the need for digital skills and infrastructure. At the same time, digital illiteracy remains a challenge, creating obstacles to the smooth transition of businesses to the new era. The problem is compounded by the lack of appropriate infrastructure and limited understanding of digital technologies, especially among SMEs, which form the backbone of the Greek economy. This paper focuses on the levels of digital illiteracy in Greek businesses and their connection with the transmission of accounting documents through the Hellenic Public Revenue Service. It examines the concept of digital illiteracy, the digital divide, and the differences observed between Greece and Europe. At the same time, the importance of digital transformation for businesses, the challenges that arise, and the strategies required for successful adaptation to modern technologies are analysed. In addition, the results of a survey through questionnaires are presented, which assess digital skills and the ability of enterprises to respond to the use of digital tools. The study concludes with recommendations for enhancing digital adaptation, with a focus on SMEs to ensure their sustainability in the ever-evolving digital environment.

## **KEYWORDS**

Digital Illiteracy, Digital Divide, Accounting Digitization, Business Resilience, Digital Economy

# COMPARISONS BETWEEN ACCESS TO HUMAN RESOURCES AND WORKLOAD IN HEALTH CARE SYSTEMS OF SOME EUROPEAN AND CENTRAL ASIAN COUNTRIES

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## ABSTRACT

The purpose of this paper is to compare some European and Central Asian Countries analyzing human resource indicators, demographic indicators, physical resource indicators, and output indicators. Data from 2017 and 2019 of WHO HfA-DB database was used, comprising 53 European and Central Asia countries.

The study explores access to human resources by pairing three human resource density indicators (Ob & Gyn Specialists / 10000 population, practicing Midwives / 10000 population, Pediatricians / 10000 population) and two demographic indicators (live births / 1000 population, total fertility rate), and testing if there are linear correlations between variables. Other output indicators were paired with functional workload indicators as follows: One output indicator (Number of All Hospital Discharges) was paired with three human resource indicators (number of Physicians employed by hospital, number of Nurses and Midwives employed by hospital, Total Hospital Employment). An output indicator (Number of Caesarean Sections) was paired with a human resource indicator (Ob &Gyn Specialists, head count) and another output indicator (Number of Live Births) was paired with a human resource indicator (Practicing midwives, head count). Finally, an output indicator (Total number of inpatient surgical procedures / year) was paired with a human resource indicator (Surgical group of specialists, head count). Comparisons between countries were made using single variables illustrated by column graphs and pairs of variables by calculating Pearson linear correlation coefficient, and illustrated by scatter diagrams. In these cases, the  $r$  correlation coefficient was compared with critical values of  $\alpha = 0.05$  and  $\alpha = 0.01$  and  $r^2$  was calculated in certain cases. The research showed both absence of linear correlations and presence of linear correlations, especially in certain pairs of output indicators paired with human resources indicators. The absence or presence of linear correlations is equally important from the point of view of analyzing various features of health services and comparing health systems. The study was limited by the scarcity of data of the last decade. This research can be extended to other indicators and provides a basis for an international comparison. The method can be used for analyzing workload and improving access to care. It shows how human resource indicators and access may be correlated with outputs indicators and others, providing a basis for reform of a health system, and / or improving access, efficiency, and possibly quality of care. The paper tries to shed light on indicators which are significant for policymakers. It might be also of interest to students who can understand better the use of indicators and work with statistical instruments to analyze data.

## KEYWORDS

Access, human resources workload, linear correlation.

## JEL CLASSIFICATION CODES

# TAX AWARENESS AND COMPLIANCE: AN EMPIRICAL ANALYSIS OF CITIZEN PERCEPTIONS IN KAVALA

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## ABSTRACT

Tax awareness constitutes a fundamental component in ensuring the effective functioning of society and promoting economic stability. Its development is essential for addressing tax evasion, fostering equity within the tax system, and nurturing a society characterized by solidarity and equality. The primary objective of this research is to examine the perceptions and attitudes of the citizens of Kavala concerning tax awareness. For this purpose, a questionnaire with closed-ended questions was developed and disseminated among the residents of the Prefecture of Kavala. The findings from the survey indicate a high level of tax awareness, based on the rates of tax submissions. However, trust in governmental institutions remains moderate to low, with prevailing uncertainty and disagreement about the fair use of tax revenues affecting the level of compliance. This underlines the need for enhanced education and information, as well as increased transparency in tax revenue management. Positive incentives are recommended to enhance tax compliance, promoting the development of a more responsible tax culture within the region. The diversity of perspectives and the moderate level of trust in institutions highlight the need for continued education and information regarding taxation and the allocation of tax revenues.

## KEYWORDS

Tax compliance, Tax evasion, Taxes, Tax behaviour

# **STRATEGIC HR APPROACHES FOR EMPLOYEE ENGAGEMENT AND CULTURAL INTEGRATION IN POST-MERGER ENVIRONMENTS: A CASE STUDY FROM ALBANIA**

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## **ABSTRACT**

Mergers and acquisitions (M&As) are transformative business strategies that often lead to uncertainty and resistance among employees. Successful post-merger integration depends not only on financial and operational alignment but also on the strategic role of human resources (HR) in managing change and fostering cultural cohesion. This study explores how HR-driven change management strategies have been implemented in a merged telecommunications company in Albania. Without a clear HR strategy, organizations risk higher employee turnover, disengagement, and internal conflicts due to cultural mismatches. In post-merger scenarios, HR is responsible for establishing clear communication channels, aligning corporate cultures, implementing employee support programs, and maintaining engagement levels during organizational restructuring. Effective HR interventions mitigate uncertainty by ensuring role clarity, leadership visibility, and structured adaptation frameworks. Cultural integration is particularly challenging, as employees from different organizational backgrounds may struggle to adopt new corporate values and work practices. Without deliberate HR-led initiatives, resistance to change can slow down the merger process and negatively impact productivity.

This study uses a mixed-methods case study approach, combining qualitative interviews with HR professionals and a review of HR policies to examine workforce integration strategies and leadership engagement. Additionally, surveys will capture employee perspectives, measuring how HR interventions influence morale, collaboration, and workplace cohesion. Quantitative analysis of survey responses will measure the relationship between HR strategies and employee engagement, turnover intention, and cultural assimilation. The findings will provide insights into HR-driven post-merger integration best practices, helping HR professionals, corporate decision-makers, and policymakers optimize HR frameworks for improved employee retention, engagement, and cultural unification in post-merger environments. By prioritizing workforce integration strategies, organizations can ensure a smoother transition and long-term business sustainability.

## **KEYWORDS**

Post-merger integration, change management, HR strategies, employee engagement, cultural integration, organizational resilience

## **JEL CLASSIFICATION CODES**

M12, M14, L22

# **UNDERSTANDING THE SHIFT: EXPLORING FINTECH BANKING ADOPTION AS AN ALTERNATIVE TO GREEK BANKING APPS**

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## **ABSTRACT**

This study examines the adoption of Fintech banks as an alternative to Greek banking applications, using the Unified Theory of Acceptance and Use of Technology (UTAUT) and Task-Technology Fit (TTF) models. It investigates the factors influencing users' decisions to adopt and transition from traditional Greek banks to digital-first financial solutions. The research focuses on key constructs from the UTAUT model, such as performance expectancy, effort expectancy, social influence, and facilitating conditions, while incorporating the TTF framework to assess how well Fintech banks aligns with users' financial needs. The study explores how performance expectancy influences the intention to adopt Fintech banks, the role of task-technology fit in sustaining long-term usage, the impact of perceived security on users' willingness to transition from traditional banks, and how the adaptability of Fintech banks to everyday financial needs affects continuous usage. Findings from this research are expected to provide valuable insights into the competitive positioning of digital-first banking solutions in Greece. Furthermore, they will contribute to a better understanding of how user perceptions and technological alignment influence the shift toward alternative financial platforms. The study's conclusions will inform strategic decisions for both digital banking innovators and traditional financial institutions seeking to enhance user adoption and retention strategies.

## **KEYWORDS**

Fintech Banks, UTAUT, Task-Technology Fit, Digital Banking, User Adoption

## **JEL CLASSIFICATION CODES**

G21, O33, D83

# DIGITAL FINANCE AS A TOOL FOR SOCIAL INCLUSION POLICIES IN COUNTRIES AFFECTED BY ARMED CONFLICTS

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## ABSTRACT

This paper explores the role of digital finance as a tool for promoting social inclusion in countries affected by armed conflicts, with a particular focus on Ukraine. Digital financial systems provide essential financial services to underserved populations by reducing transaction costs, minimizing corruption, and facilitating remote access to banking services. These systems enable individuals to create digital financial profiles, improving their access to credit and economic opportunities. Digital financial inclusion is a critical element in economic development, allowing for more efficient allocation of resources in healthcare, education, and business investments.

The study highlights the profound impact of the ongoing military conflict in Ukraine, where over 13.5 million people have been displaced, and poverty rates have sharply increased. In response, the Ukrainian government has leveraged digital finance to mitigate the socio-economic and humanitarian consequences of war. The «**Diya**» **digital governance platform** plays a crucial role in providing financial support, including business grants for veterans, compensation for war-related property damage, and preferential mortgage loans for internally displaced persons. Digital payment systems further enhance financial resilience by enabling rapid redistribution of funds, facilitating access to international aid, and supporting crowdfunding initiatives for humanitarian relief. Beyond Ukraine, the paper examines how other conflict-affected nations—such as Afghanistan, Sudan, and Yemen—are adopting digital financial solutions to varying degrees. While digital finance presents significant opportunities for economic stability in fragile states, challenges remain in ensuring widespread adoption and accessibility. The study underscores the importance of **tailored financial inclusion policies**, infrastructure investments, and international collaboration in enhancing the effectiveness of digital finance in conflict settings. By analyzing Ukraine's experience, this paper provides insights into the broader implications of digital financial inclusion in war-torn regions and offers recommendations for policymakers, financial institutions, and humanitarian organizations seeking to leverage digital finance as a tool for social and economic resilience.

## KEYWORDS

Digital Financial Inclusion, Conflict-Affected Countries, Economic Stability, Ukraine War, Diya Digital Platform, Financial Resilience

## JEL CLASSIFICATION CODES

F690

# **POLICY-DRIVEN RENEWABLE ENERGY TRANSITION IN MENA: A BVAR ANALYSIS BEYOND THE KUZNETS HYPOTHESIS**

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## **ABSTRACT**

The relationship between renewable energy adoption and economic development in Middle East and North Africa (MENA) countries can be examined through the Environmental Kuznets Curve (EKC) hypothesis, which suggests that environmental degradation initially rises with economic growth but declines after reaching a certain income threshold due to increased investments in cleaner technologies. Given the MENA region's heavy reliance on fossil fuels, economic diversification, and energy security concerns, understanding this relationship is critical for sustainable development. This study not only tests the EKC hypothesis within the context of renewable energy adoption but also explores the role of policy incentives, technological advancements, and international cooperation in accelerating the transition. Within this framework the present study employs a Bayesian Vector Autoregression (BVAR) model to analyze the relationship between renewable energy adoption and economic dynamics in Middle East and North Africa (MENA) countries, moving beyond the traditional Environmental Kuznets Curve (EKC) framework. By utilizing a BVAR approach, the study accounts for the complex interdependencies between renewable energy deployment, economic growth, and policy interventions while addressing uncertainty in parameter estimation. The results indicate that economic expansion does not inherently lead to increased renewable energy adoption, challenging the EKC hypothesis in this regional context. Instead, policy-driven factors, including government incentives, regulatory frameworks, and international collaboration, play a more significant role in shaping the energy transition. The study provides validated policy implications, emphasizing the need for targeted fiscal policies, investment in renewable infrastructure, and regional energy market integration to enhance sustainability. The findings suggest that MENA countries should prioritize policy stability, technological innovation, and financial mechanisms to accelerate the shift toward renewable energy without compromising economic development.

## **KEYWORDS**

Renewable Energy, Bayesian Vector Autoregression (BVAR), MENA Region, Economic Growth, Policy Implications, Energy Transition, Sustainable Development, Government Incentives, Market Integration, Climate Policy

# **BRIDGING TECHNOLOGY AND RESPONSIBILITY: THE IMPACT OF DIGITALIZATION ON CSR IN UKRAINE'S INDUSTRY**

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## **ABSTRACT**

In the contemporary business environment, the rapid proliferation of advanced digital technologies such as artificial intelligence, blockchain, and 5G has fundamentally reshaped corporate strategies and operations. These technological advancements not only drive economic growth but also redefine the responsibilities of enterprises in fostering sustainable development. Corporate Social Responsibility (CSR) has evolved from a discretionary obligation to an essential component of corporate strategy, aligning social expectations with business imperatives. In this context, digital transformation emerges as a critical enabler, intertwining technological progress with the realization of CSR objectives to enhance corporate sustainability and competitiveness.

This study investigates the interplay between digitalization and CSR in the industrial sector of Ukraine, a country undergoing economic and technological transitions amid significant socio-political challenges. The research first delineates the conceptual and theoretical underpinnings of digital transformation and CSR, establishing a framework that links digital advancements to responsible corporate practices. Employing a mixed-methods research design, the study integrates qualitative insights from expert interviews with a broader quantitative analysis based on survey data. The qualitative phase involves in-depth interviews with industry professionals to explore the mechanisms through which digital technologies influence CSR initiatives, forming the basis for a conceptual model. The hypotheses derived from this model are then empirically tested using statistical methods applied to survey responses.

The findings indicate a strong correlation between digitalization and the enhancement of CSR practices, with technological innovations contributing to improved operational efficiency, stakeholder engagement, and environmental sustainability. The study identifies key drivers of this relationship, including automation's role in resource optimization, blockchain's impact on transparency and accountability, and artificial intelligence's potential to improve decision-making in ethical business practices. Furthermore, digitalization is shown to enable real-time monitoring and reporting of CSR initiatives, reinforcing corporate accountability and trust among stakeholders.

Despite its contributions, this research acknowledges certain limitations, including its focus on a specific industrial sector within a single national context, which may restrict the generalizability of its findings. Nevertheless, the study provides important theoretical and practical insights into the integration of digitalization and CSR, offering a foundation for future research and policy recommendations. As businesses worldwide increasingly embrace digital transformation, understanding its implications for CSR becomes essential for fostering sustainable industrial growth and aligning corporate strategies with broader societal goals.

## **KEYWORDS**

digitalization, Corporate Social Responsibility (CSR), sustainability, industrial sector, technological innovation, Ukraine.

# **GREEN TRANSITION AND ADAPTATION TO CLIMATE CHANGE: TASKS AND CHALLENGES FACING UKRAINE ON ITS PATH TO EU MEMBERSHIP**

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## **ABSTRACT**

The journey towards closer ties between Ukraine and the European Union (EU) has been marked by significant milestones and strategic agreements. From the early declaration of intent in the 1990s to the landmark Association Agreement, the trajectory reflects a deepening commitment to foster political association and economic integration. Ukraine's attainment of candidate status for European Union membership and the commencement of negotiations on Ukraine's integration into the EU highlight the emergence of economic opportunities for the country, particularly as we formulate the nation's post-war recovery strategy.

Ukraine's accession negotiations to the EU cover a wide range of topics – in total, 35 areas of EU policy and law. The main part of the negotiations will be an analysis of Ukraine's progress in approximating its legislation and practice of its application in these 35 areas ("chapters", or "sections") to the requirements of EU membership. One such section of the negotiation process is environment and climate change.

Deep concern about the consequences of climate change runs like a red ribbon through all policy documents for territorial development in EU countries. The reasons for this are the forecasts of the Intergovernmental Panel on Climate Change (IPCC), according to which warming in Europe will continue to grow faster than global warming, which means increasing disparities in risks in Europe in the 21st century.

The Paris Agreement laid the foundation for policy documents for territorial development in European countries in the field of adaptation to climate change and is a legally binding international treaty.

The European Green Deal (EGD) has become an important policy document on Europe's path to sustainable development. The Green Deal combines the Green and Just Transition Goals as they aim to tackle the unevenly distributed effects of the energy transition, reduce greenhouse gas emissions and the impacts of climate change and other environmental challenges. It addresses climate change and environmental challenges in terms of opportunities for all places and ensuring a just and inclusive transition for all. The EGD offers a stable European context for local and regional development, green and digital transitions.

Among the tasks set for Ukraine by the European Commission regarding the EU acquis in the field of environment and climate change, it should be noted:

- Adoption of a waste management plan and development of a strategy and action plan for the transition to a circular economy model;

Ukraine should update its long-term low emission development strategy under the Paris Agreement to reflect its long-term mitigation goal and prepare and submit a new Nationally Determined Contribution under the Paris Agreement;

Ukraine is actively working on establishing a national Emission Trading System (ETS), which should ensure a gradual convergence of its carbon pricing policy to the EU ETS. The country will need a comprehensive, standardized, reliable MRV system as a prerequisite.

Ukraine is currently on a difficult and unprecedented journey, simultaneously defending its sovereignty from Russian aggression and striving to achieve full-fledged membership in the European Union. This dual aspiration is an extraordinary feat, as no other country has ever faced such a complex challenge of protecting its territorial integrity while simultaneously striving for integration into such a large supranational entity as the EU.

#### **KEYWORDS**

Sustainable Development, Green Transition, European Integration

#### **JEL CLASSIFICATION CODES**

F680

# **JOB SEARCH CRITERIA OF GREEK UNEMPLOYED: NECESSITY VERSUS CHOICE**

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## **ABSTRACT**

Over the recent years after Covid-19 unemployment rate steadily declined in EU, reaching 6.1% in 2023, its lowest point since 2014. However Greece underperformed with the second highest unemployment rate of 11.1% and the highest long-term unemployment rate and youth unemployment rate, 6.2% and 21.8% respectively (Eurostat 2024). Contemporaneously the last five years from 2019 till 2023 the vacancy-to-unemployed ratio in Greece increased by 4 times and the number of job vacancies has surged with more than 1 in 3 enterprises having unfilled positions; reflecting co-occurrence of high unemployment and job vacancies in the Greek labor market (Eurostat 2024, OECD 2024). Many studies reporting employers' views have identified as main reasons for this paradox the lack of interest for specific job positions and skills mismatches without taking consideration any quality aspects of job offers. Nevertheless the explanation of the Greece's labor market paradox should also include the supply side exploring the causes of low employability in post-Covid Greek labour market. Drawing on primary data retrieved via original questionnaire from an ongoing research about the employability of the Greek workforce conducted over the last semester of 2024 we focus on unemployed individuals and their job search criteria. Representing 10% of our sample we explore how unemployed assess the type of jobs they pursue - in terms of employment stability and security, career prospects, utilization of their qualifications, better wages, etc. We distinguish between job-seekers of necessity who search to work in order to cover their livelihood and job-seekers of choice who search to work by setting their conditions and priorities. Using paired sample correlations we analyze how parameters like the level of their education, their age and their unemployment duration determine the job search of Greek unemployed. Our findings establish the importance of quality aspects in the offered job positions underlining how essential is the creation of decent work opportunities in the COVID-19 recovery period for the achievement of sustainable and inclusive labor markets.

## **KEYWORDS**

Unemployment, job search, employability.

## **JEL CLASSIFICATION CODES**

J64

# THE MIGRATION AND WORKFORCE – THE CASE OF KOSOVË

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## ABSTRACT

Migration theory and empirical research show that migration is influenced by repulsive factors (Push) and attractive factors (Pull) and is a very complex phenomenon. The Republic of Kosovo, a developing country, with a population of about 1.6 million inhabitants, with an average age of population 34 years (ASK, 2024), has about 850 thousand inhabitants in the diaspora and this number is constantly growing. For Kosovo Albanians, who make up about 92% of the population of Kosovo, in addition to emigration for economic reasons, the "brain drain" from the country of origin (Kosovo) is quite worrying. From Kosovo, in recent years, the emigration of qualified citizens is also evident, including doctors, teachers, well-trained soldiers from the NATO military, engineers, etc., and this also means a decrease in the workforce and, in any case, a decrease in the quality of services in our country.

The goals of this study are: the causes that influence emigration, the age groups of emigrants, the level of education of immigrants and the professions with the highest rate of immigrants in Kosovo.

Some of the objectives of the study are: forecasting the rate of migration and the structure of the population for the future, the dropout of education of the Albanian youth as well as the forecast for the labor force in Kosovo. I will organize surveys with respondents of different ages, including high school students and university students, then I will analyse these primary data and obtain data for the goals and objectives of the study. The primary and secondary data (data from relevant local and international institutions) acquired, I will elaborate and analyze with the most advanced current software.

## KEYWORDS

emigration, education, citizens, factors, students.

## SUSTAINABLE DEVELOPMENT AND WORKING CAPITAL MANAGEMENT : THE CASE OF ENERGY COMPANIES BEFORE AND DURING THE COVID-19 CRISIS

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## **ABSTRACT**

The 1987 Brundtland Report (World Commission on Environment and Development -WCED-,1987) and the United Nations' "Agenda 21" (United Nations Commission on Environment and Development-UNCED-,1992) established the concept of Sustainable Development and was incorporated in the European Union regional and environmental policy. Now the Agenda 21 has evolved to Agenda 2030 for Sustainable Development and refers to a plan agreed to by all member states of the United Nations in 2015. This plan was to reduce inequality, to eradicate poverty and world hunger, to offer access to quality health care globally, to strengthen the scientific, technological and innovative capacities of the member countries so that they can move towards more sustainable patterns of consumption and production, to address decisively the threat posed by climate change and environmental degradation, to ensure the reduction and recycling of waste and the more efficient use of water and to ensure access to clean energy for everyone. In brief, it recognised that social and economic development depends on the sustainable management of our planet's natural resources.

Regarding energy, the Agenda 2030 has to fulfill the Sustainable Energy Development (SGD) goal 7, which requires efficient energy companies. One of the many strategies that top managers have to consider and implement in order to maximize the wealth of their shareholders refers to short term financial management. Hence, they have to pursue efficient working capital management to protect their company from financial distress, keep it liquid enough, offer it a competitive advantage and increase its sustainability and growth.

The proxy for working capital management, according to many researchers, is the cash conversion cycle and the proxies for measuring a company's performance is the financial ratio return on assets and the Tobin's Q ratio. Therefore, our objective is to investigate the impact of working capital management on a company's performance. Our target industry is the energy sector in Europe. The data regarding our sample and variables is obtained from the Thomson EIKON database for the period 2000 to 2020. For deeper analysis we distinguish two subperiods, the before Covid-19 era up to 2019 and the during Covid-19 era, 2020. We want to investigate whether this global health crisis affected the Energy companies and in what way. This knowledge will be an invaluable guide to managers, investors and policy makers in case there is another global crisis. Our study is important for the academicians interested in this subject because it enriches the existing literature by investigating the energy sector for European listed companies. It is significant also for the corporate managers of energy firms since, based on our empirical results it will provide them with insights for their short term strategies and decisions to achieve sustainability and growth. Finally, this study can be useful to investors focussing on energy companies, in providing them with pertinent information regarding the prospects of their investments.

## **KEYWORDS**

working capital management, sustainable development

# INTEGRATING INNER DEVELOPMENT GOALS AS A POLICY INSTRUMENT FOR SDGS ACHIEVEMENT IN ALBANIA: THE MEDIATING ROLE OF HEIS

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## ABSTRACT

Inner Development Goals (IDGs) (2021) initiative offers the set of capacities, qualities and skills that individuals and organizations need for the creation of the sustainable society and contribute significantly to effectively work with SDGs as require dealing with increasing complexity. Higher Education Institutions (HEIs) play crucial role in guiding the stakeholders, making a proper connection between generations and creating the vision for the future. *The main aim of this work is to analyze how inner capacities can deconstruct the conceptual meaning to the surrounding world for a better shift toward sustainability taking into consideration the mediating role of higher education as a policy instrument in developing countries.* To derive some concrete results the study employs a mix methodological approach with 3 research phases; in the first phase it makes a content analysis and open interviews with IDG community to make the country diagnostic analysis and uses the Strategic Alliance Formation Assessment Rubric (SAFAR) developed by Gajda (2004) to asses Albania's collaboration ecosystem for IDGs; in the second phase, the workshop with focus group composed with representatives from quadruple helix are analyzed concluding that integrating IDG into higher education as a policy instrument is the main way to achieve SDGs; in the third phase Confirmatory factor analysis is conducted with data collected university representatives to gain insights if those institutions are engaged in adopting IDG framework as a core element in capacity building for the creation of sustainable solutions and SDGs fulfilment. The research multi-faceted process identified some clear action plans and future vision for the questions about what, how, who, when and what now to proceed with regarding the selected ambition of the educational sector as policy instrument, emphasizing recommendations for capacity building, resource allocation and policy alignment.

## KEYWORDS

inner development goals, SDGs, sustainability, policy integration, ecosystem mapping

# **THE IMPACT OF DIGITALIZATION ON WOMEN'S EMPLOYMENT IN ALBANIA: AN ANALYSIS OF CHALLENGES AND DETERMINANT FACTORS**

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## **ABSTRACT**

The digital transformation of the labor market has introduced both opportunities and challenges for women's employment across various sectors. In Albania, digitalization is reshaping traditional employment structures, influencing job availability, skill requirements, and work flexibility. However, the extent to which digitalization fosters or hinders women's labor market participation remains unclear, particularly in comparison to other Balkan and European countries.

This study examines the impact of digitalization on women's employment in Albania, focusing on key determinant factors such as education, digital infrastructure, governmental policies, and organizational culture. Unlike previous research, this paper explores the broader labor market, including both digital and traditional sectors, providing a comprehensive assessment of how digital transformation affects women's workforce integration.

The research methodology involves analyzing existing data from national and international sources such as INSTAT, OECD, ILO, and the European Commission. A comparative analysis with other Balkan and European countries will highlight trends and unique challenges faced by Albania. The study will assess access to digital skills training, sectoral shifts in employment, and structural barriers that may limit women's participation in emerging digital industries.

Preliminary findings suggest that while digitalization offers new opportunities for female employment, gaps in digital literacy, inadequate policy support, and socio-cultural norms remain significant barriers. By identifying these challenges, the study aims to contribute to policy discussions on gender equality in the labor market and suggest areas for further research and intervention.

## **KEYWORDS**

Digitalization, Women's Employment, Labor Market, Gender Equality, Economic Policy

## **JEL CLASSIFICATION CODES**

J16, J21, O33

# **SOCIAL, ECONOMIC AND ENVIRONMENTAL DRIVERS OF RENEWABLE ENERGY CONSUMPTION IN THE WESTERN BALKANS**

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## **ABSTRACT**

The renewable energy transition in the Western Balkans is driven by a complex interplay of social, economic, and environmental factors. Social drivers include growing public awareness of climate change and the demand for cleaner energy alternatives, while economic drivers encompass the potential for job creation, energy security, and long-term cost savings associated with renewable energy adoption. Environmental considerations, such as reducing greenhouse gas emissions and mitigating the adverse effects of fossil fuel reliance, further motivate the shift. The aim of the paper is to investigate the effect of social, economic and environmental factors on renewable energy transition during 2000-2024 for six Western Balkan Countries. Random Effects model is used to investigate the main factors.

# **FOREST MANAGEMENT IN PORTUGAL: THE CHALLENGES OF BALANCING FOREST PRESERVATION WITH ENERGY DEMAND AND SUSTAINABLE ECONOMY**

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## **ABSTRACT**

Although Portugal remains highly dependent on oil purchases to meet its energy needs, the last decade has seen significant growth in the implementation of renewable energy sources, particularly hydroelectric, solar, and wind power. Recently, interest in the use of biomass as an energy resource has increased, with various projects being presented and discussed, highlighting different technologies and the national potential associated with this resource.

In this context, forest biomass holds special interest as forests cover approximately one-third of the country. However, there is a growing trend of depopulation in these areas and the occurrence of extreme forest fires with vast burned areas, placing sustainable forest management at the center of societal discussions and legislative initiatives. These initiatives focus on the genetic diversity of species, the proper maintenance of carbon stocks, and forest fire protection.

It is estimated that the annual production of waste from forestry operations in Portugal ranges between 1.7 and 2.5 million dry metric tons, with forest stands predominantly composed of eucalyptus and maritime pine. The energy sector in Portugal is one of those that can benefit from the recovery of agroforestry biomass residues, both in terms of carbon neutrality and energy independence.

This study explores energy valorization technologies, supported by the development of public policies that foster incentives and mitigate wildfire risks, aligning with the principles of energy independence, renewable energy production, and sustainable economic growth. Trends are assessed using a roadmap methodology, a SWOT analysis is conducted on various scenarios, and the economic significance and governance of forest resources are examined within the framework of a circular economy strategy.

## **KEYWORDS**

Forest Waste, Biogas, Anaerobic Digestion, Wildfires, Renewable Energy, Sustainability

## **JEL CLASSIFICATION CODES**

Q16, Q23, Q54

# **A REGIONAL EXAMINATION OF UNEMPLOYEMENT IN GREECE: IT'S RELATION TO MACROECONOMIC PARAMETRES**

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## **ABSTRACT**

The Greek economy was characterized by successive economic crises in the 2010s and 2020's, including the implementation of the stabilization program and the COVID-19 pandemic. There were severe macroeconomic impacts. One of the most serious issues was unemployment because it also has a social dimension. In addition to their universal nature, economic crises and recessions differ depending on the region or economic sector. This paper aims to examine the effects of the crises in Greece in a geographical dimension, particularly in the context of the regional dimension with the most decentralized character, the regional unit or prefecture. The purpose of the paper is to see whether the evolution of the Greek economy in the period 2008-2023 had the same or different effect on unemployment at the level of the regional unit. Are there areas that were affected more or less than the whole of Greece? And if so, why? What connects the individual evolution of unemployment with the productive structure of regional units in various periods?

## **KEYWORDS**

Crisis, Greece, Regional, Unemployment.

## **JEL CLASSIFICATION CODES**

J60, P52, R11

# **AN EMPIRICAL ANALYSIS OF EMIGRATION IN THE REPUBLIC OF NORTH MACEDONIA: A GRAVITY MODEL APPROACH**

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## **ABSTRACT**

The purpose of this study is to analyze the determinants of emigration by examining the impact of economic and demographic factors using panel data for the period 2009–2020. The study employs Pooled OLS, Fixed Effects, and Random Effects models to assess the relationship between emigration and key variables such as GDP per capita, population, inflation rate, GINI coefficient, trade, distance, and two dummy variables: the COVID-19 pandemic period and the presence of German as an official language in the destination country. The results indicate that GDP per capita in the destination country has a significant positive impact on emigration, while GDP per capita in the origin country exhibits a negative but statistically insignificant effect. Trade positively influences emigration, suggesting that stronger economic ties between countries facilitate migration. The pandemic period shows a dampening effect on emigration, whereas the German language dummy variable is associated with lower migration flows to German-speaking countries. Overall, the findings highlight that economic factors in destination countries play a more decisive role in shaping emigration patterns than those in origin countries.

## **KEYWORDS**

Emigration, Gravity Model, Panel Data, North Macedonia.

# **SIMULATION OF THE IMPLEMENTATION OF A SUPPLEMENTARY PAYMENT SYSTEM WITH DIGITAL SOCIAL WALLET AT LOCAL LEVEL**

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## **ABSTRACT**

The use of local/complementary currencies in the community has been applied for many years in several countries with many socio-economic differences between them. Technological developments allow similar possibilities to be explored with the use of a digital social wallet, with a local character and a fixed parity with the euro. In this paper, we present the results of an extensive simulation of the implementation of such a digital social wallet in a relatively small regional municipality in Greece. The simulation was implemented with a specially designed algorithm incorporating a number of independent parameters of the socio-economic environment, which in their time evolution were affected by random variations. The latter were derived from a special real randomness model. The algorithm was run for four different scenarios, for 2885 different conditions for each scenario and over a period of five years. The results show the degree of usefulness for the local economy and employment.

## **KEYWORDS**

Complementary currencies, simulation, randomness model, local development

## **JEL CLASSIFICATION CODES**

C53, R51

# **THE CONTRIBUTION OF SOCIAL AND SOLIDARITY ECONOMY INITIATIVES THROUGH INNOVATIVE APPROACHES IN THE AGRI-FOOD CHAIN TO LOCAL, REGIONAL, AND RURAL DEVELOPMENT**

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## **ABSTRACT**

The need to transition to sustainable agri-food systems is acknowledged globally. In recent decades, alternative innovative approaches have been driving changes in the existing agri-food system by exerting pressure and establishing the framework for a fundamental transformation that prioritises ethical and nutritional values. At the same time, the social and solidarity economy, among other factors, leads to novel solutions based on the redefining of values related to the reconstruction of local agri-food production systems, thereby strengthening local and rural communities, as well as social and environmental sustainability. The purpose of this study is to investigate and analyse alternative methods and initiatives of the social and solidarity economy, along with innovative approaches in the agri-food sector, that can positively and innovatively redefine and transform the agri-food chain and the primary sector at local and regional level.

## **KEYWORDS**

Social and solidarity economy, local and regional development, innovative agri-food chain approaches.

## **JEL CLASSIFICATION CODES**

I31, Q18, P25

# **THE EFFECT OF CULTURAL DISTANCE, CULTURAL SIMILARITY AND SHARED VISION ON TRUST IN INTERNATIONAL STRATEGIC ALLIANCES**

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## **ABSTRACT**

Partner trust in global businesses has emerged as a key success factor and the need to identify the antecedents of trust among business partners, in different business and cultural environments has escalated. This study examines the impact of cultural distance, cultural similarity, and shared vision on the level of trust that foreign partners place in local partners within international strategic alliances (ISAs). Drawing on a sample of 171 ISAs established by Greek small and medium-sized enterprises (SMEs) in the under-researched region of South-East Europe, this research provides empirical insights into the complex interplay of cultural factors in trust-building processes. The study contributes to the literature by shedding light on trust dynamics in cross-border partnerships involving SMEs operating in emerging markets. Managerial implications highlight the importance of aligning strategic objectives and fostering mutual understanding to enhance collaboration. The paper concludes with directions for future research on the role of culture and shared vision in international business cooperation.

## **KEYWORDS**

International Strategic Alliances, SMEs, Trust, Cultural Distance, Cultural Similarity, Shared Vision

## **JEL CLASSIFICATION CODES**

M16

# **THE NEXUS BETWEEN TRANSPORT INFRASTRUCTURES, KNOWLEDGE SPILLOVER EFFECTS AND FIRM PRODUCTIVITY.**

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## **ABSTRACT**

The spatial interaction among firms, but also with other source of knowledge that can be accessible through infrastructure proximity is a topic of high interest in the literature of entrepreneurial ecosystem and regional development, but less investigated in emerging countries. The scope of our research is to fill this gap. This work investigates economic and innovation performance of firms, through networks firms utilize to access knowledge to facilitate their growth and innovation processes. We argue that spillover effects are conditioned to the ecosystem in which firms operate, and transport infrastructures, by enabling connectivity, interactions and the exchange of knowledge and ideas, facilitate the access to entrepreneurial opportunities and capabilities to implement those opportunities. Using data from the VI wave of Business Environment and Enterprise Performance Survey (BEEPS) from the World Bank and the European Bank for Reconstruction and Development, combined with firms' and infrastructure geolocalized data, we estimate the CDM model (Crépon-Duguet-Mairesse, 1998) to investigate the relationship between innovation input, its output and productivity of firms in Central and East Europe. This work shows that transport infrastructures proximity plays a crucial role on firms' performance, thus part of this effect is due to knowledge spillovers and innovation processes. According to the estimates, especially road transport infrastructure positively affects performance through spanning innovation. The results presented in this paper provide evidence useful to inform efficient transportation, urban, and regional economic planning for firms' growth.

## **KEYWORDS**

Transport infrastructure; Firm performance; Innovation, Knowledge spillovers; Spatial proximity

# **EXPLORING TECHNOLOGICAL INNOVATION AND ENERGY EFFICIENCY IN TRANSITION ECONOMIES**

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## **ABSTRACT**

This study explores the critical role of innovation in enhancing energy efficiency (EE) within transition economies, examining how technological advancements at the firm level contribute to sustainable energy practices. Transition economies, which have undergone significant structural shifts from planned to market systems, face unique challenges, including aging infrastructure, energy-intensive industries, and limited innovation capacity. These issues highlight the need for customized strategies that integrate technological progress with broader economic and environmental objectives. Using data from the World Bank Enterprise Survey (WBES) for the 2018–2020 wave, this research provides empirical evidence that innovation is a key driver of improved energy efficiency. Specifically, the findings reveal that firms that engage in innovative activities—such as the development of new products, processes, or management practices—exhibit significantly higher levels of energy efficiency. To deepen the analysis, the study introduces a novel instrument: the endowment of external knowledge. This instrument measures firms’ access to external knowledge resources, which play a pivotal role in fostering the innovation needed to enhance energy efficiency. Results underscore the importance of robust policy frameworks that encourage and support innovation. Such frameworks are critical for addressing systemic inefficiencies, stimulating research and development (R&D), and promoting the adoption of advanced technologies. By doing so, transition economies can achieve substantial improvements in EE, aligning their energy performance with the standards of developed countries. Furthermore, these efforts contribute meaningfully to broader global goals of reducing greenhouse gas emissions, combating climate change, and achieving sustainable development. In conclusion, this study highlights the dual benefits of innovation: it not only improves firms’ competitiveness and operational efficiency but also addresses pressing environmental challenges. Policymakers are urged to prioritize investments in innovation systems and create an enabling environment that facilitates the integration of sustainability into business practices. Future research should continue to explore the intricate relationship between innovation, policy design, and energy efficiency to inform strategies that promote economic growth and environmental resilience in transition economies.

## **KEYWORDS**

Innovation, Energy Efficiency, Transition Economies

# **THREE SEAS INITIATIVE IN THE CONTEMPORARY GEOPOLITICAL AND GEOECONOMIC CONTEXT: MARGIN OR BRIDGE**

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## **ABSTRACT**

The already established bipolarism, even multipolarism, economic fragmentation, restructuring of political blocks and neo-imperialistic antagonisms, along with a continuously worsening of spatial and social disparities, as well as environmental dissolvment generate a framework of multiple, interconnected crises. In this specific situation the significance of Eastern Europe, Black Sea and Eastern Mediterranean rises up again inducing new challenges, risks and opportunities, while the role and strategy of the EU has to be necessarily reestablished. In that sense, the already established (and lately expanded with the participation of Greece) Three Seas Initiative (3SI) has to readjust its strategic goals and also the tactics it should follow. Following a comprehensive analysis of contemporary situation, as well as of the short history of 3SI, in the second part we proceed with an evaluation of its importance for the future of EU in the Eurasian spectrum based on the review of relevant literature. In the third chapter we propose a new strategic planning and policy orientation of the 3SI in accordance to the necessary adjustment of European economic and political diplomacy. Finally, we provide the overall conclusions and the proposals for further research.

## **KEYWORDS**

Multiculturalism, Economic and Political Fragmentation, Eurasian collaboration, Three Seas Initiative.

## **JEL CLASSIFICATION CODES**

F5, R5, P5

# HOUSE PRICE DYNAMICS: CAUSES AND EFFECTS

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## ABSTRACT

In recent years, a continuous increase in housing prices has been witnessed all over the world. This paper provides empirical evidence regarding the causal links between housing prices and macroeconomic factors, referenced in the relative literature, such as per capita GDP, Inflation and Employment. Using quarterly data over the period 1997–2023 for various European countries, we investigate the existence of a cointegration relationship between them by means of the Johansen ML cointegration technique. Next, the analysis applied Granger-type tests to detect significant causal effects running among the examined variables. The results reveal mixed evidence depending on the country under consideration.

## KEYWORDS:

Housing prices, economic growth, inflation, Johansen cointegration analysis, Granger-causality analysis, structural breaks.

## JEL CLASSIFICATION CODES

E32, C22, C53, L85, O52

# EXPLORING INDUSTRIAL PERCEPTION AND ATTITUDES TOWARD SOLAR ENERGY: THE CASE OF ALBANIA

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## ABSTRACT

Energy plays a crucial role in the development of societies, yet the increasing demand and pressure for production pose significant environmental challenges. This study addresses the critical need for renewable energy, particularly solar power, in light of the projected 50% increase in global energy consumption by 2050 and the European Union's goals for reducing greenhouse gas emissions. While Albania predominantly relies on hydropower for electricity generation, which constitutes 95% of its capacity, the variability of hydropower underscores the necessity for diversifying energy sources, especially to harness the country's solar potential. This research aims to assess industrial awareness and perception of solar energy utilization in Albania through data gathered from questionnaires conducted in 2023. The findings reveal a substantial interest in solar energy, reflecting a gap in the existing literature which primarily focuses on developed economies. By contributing insights into renewable energy awareness in Albania, this paper addresses a significant gap in research concerning transition countries in the Western Balkans. The study ultimately emphasizes the importance of public acceptance and environmental protection in adopting sustainable energy practices in a region characterized by abundant solar resources.

# OPEN MARKETS IN LOCAL FOOD SYSTEMS: THE CASE OF ANKARA

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## ABSTRACT

Sustainability and access to food are becoming increasingly important due to the population growth in cities and also the pressure on food systems. (FAO, 2021). Open markets are not only a part of the supply chain in these systems, but also areas where social ties are strengthened and connections between local producers and individuals are strengthened (Hinrichs, 2000). There has been insufficient research on the spatial distribution of these markets, their roles in supply chains, and seasonality. As we said, nutritious food should be for everyone, it sustain our well-being and makes it possible people to pursue healthy lives. But its not always available especially for the low-income neighborhoods in Ankara. Open markets are expanding access to fresh, healthy food in communities that need it most with affordable, competitive prices and special programs for low-income families. The place of open markets in Ankara in urban food systems, their spatial distribution, their roles in supply chains, and how they are involved in local food production will be examined. Open markets are also of critical importance for food supply. These open markets, which contribute to local food systems, also play an important role in shortening supply chains (Sonnino and Marsden, 2006). In this way, they aim to reduce the carbon footprint and contribute to the regional economy. The spatial characteristics of the markets also reveal inequalities in access to food. Some components, fresh and affordable prices, food access is limited, while other components have a high market share. The research aims to analyze the status and capacities of markets in Ankara's districts through spatial mapping and to enrich the findings obtained from qualitative interviews with open market actors (producers, vehicles, and marketers). It aims to reveal how seasonal dynamics shape markets and how they are provided. While some markets have an important role in local food systems, others are more dependent on external resources, resulting in the absence of spatial and structural inequalities. Past lessons learned from Ankara's open markets contribute to global discussions on access to food, sustainability, and preservation of local food economies. This study highlights the role of open markets as key components of sustainability and suggests how these markets can make food networks more resilient and equitable. Future research can be expanded by conducting similar analyses in other cities or by evaluating the impact of specific policy interventions on local food systems..

## KEYWORDS

Food access, food security, open markets, sustainability, supply chains, local food.

# IMMIGRATION THROUGH THE LENS OF ASYLUM SEEKERS: A STUDY IN GREEK TEMPORARY HOSTING STRUCTURES

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## ABSTRACT

Greece's immigration policy is a multifaceted field inextricably linked to the country's historical, social, and economic developments. Since the 1990s, Greece has transitioned from a country of origin for migrants to a country of destination, which has led to the development of a new institutional framework for regulating migration flows. The challenges that have arisen, such as the management of refugee flows and the integration of migrants into Greek economy and society, have necessitated the adaptation of policies to a dynamic European and international environment.

Greek immigration policy focuses on three main pillars: border control and the regulation of legal and irregular migration, the provision of asylum to beneficiaries of international protection, and the integration of migrants into the country's social and economic life. However, the policies implemented are often influenced by economic conditions, the political climate, Greece's international obligations, and social perceptions of migration.

This paper aims to outline the profile of migrants as well as the reasons for the actual migration of citizens of third countries to Greece. The great need of citizens of third countries to migrate makes Greece not just a passage but also a conscious choice for residence. The results of this research have a set of information related to the daily life of citizens of third countries, their place of residence, the interaction with locals, as well as the difficulties they face in the labor market. The lack of skills, language, and racism they face often stand in the way of their smooth integration. Valid reasons for persecution, political beliefs, and the use of force are often the main reasons for leaving their country of origin. Alone or with their families, people from Sudan, Afghanistan, Gambia, Syria, Irak, and Iran travel many miles in search of a prosperous environment. In this study, 247 asylum seekers answered a given questionnaire to record their migration experience. The results of this study outlines the profiles of people who live in temporary hosting structures, and shed some more light on their migration experience.

Greece's participation in European mechanisms, such as the EU-Turkey Agreement and cooperation with Frontex, has significantly affected the way migration flows are managed. Overall, Greek immigration policy remains a field of intense political and social fermentation, with constant changes and adjustments. The future challenge lies in creating an even more sustainable and balanced framework that will combine the effective control of migration flows with ensuring the rights of migrants and their smooth social integration.

## KEYWORDS

Immigrants, Migration, Camp, Employment market, Integration, Assimilation.

# MARKET POTENTIAL AND CONSUMER ACCEPTANCE OF SEA BUCKTHORN-ENRICHED CEREAL BARS

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## ABSTRACT

Sea buckthorn (*Hippophae rhamnoides*) is a plant widely recognized for its bioactive components and medicinal properties. Despite the increasing research on its health benefits, consumer perceptions of sea buckthorn-based food products remain underexplored. This study aims to assess consumer attitudes toward a novel product: cereal bars enriched with sea buckthorn. A structured questionnaire with 19 items was developed to examine key factors influencing consumer perceptions, including nutritional awareness, taste, safety, trust in manufacturers, price, and sustainability. Data were collected from a sample of Greek consumers. Findings indicate that while consumers acknowledge the health benefits of sea buckthorn, they perceive the product as expensive and lacking in taste and visual appeal. Moreover, trust in companies producing sea buckthorn products is low. However, positive perceptions regarding environmental sustainability and support for small-scale farmers contribute to a moderate willingness to purchase. These results highlight the need for improved marketing strategies that emphasize sustainability and product quality, as well as efforts to enhance sensory characteristics. Strengthening consumer trust in food manufacturers is also essential for market success. This study underscores the importance of integrating consumer insights into product development to increase acceptance and market viability.

## KEYWORDS

Sea buckthorn, consumer attitude, novel products, functional foods.

# FACTORS INFLUENCING CONSUMER INTEREST IN FUNCTIONAL FOODS: THE CASE OF SEA BUCKTHORN-ENRICHED YOGURT

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## ABSTRACT

Functional foods offer health benefits beyond basic nutrition, yet their market success is often uncertain. While consumers show interest in such products and may be willing to pay a premium, various factors influence their purchasing decisions. This study examines consumer willingness to buy a novel functional food: yogurt enriched with sea buckthorn. Using a structured questionnaire and a sample of Greek consumers, the research evaluates the impact of five key factors: perceived health benefits, sensory attributes, sustainability aspects, social acceptability, and product availability. Findings reveal that all examined factors significantly influence consumer willingness to purchase. Health-related benefits remain a major driver, but product acceptance also depends on taste, convenience, and sustainability considerations. Moreover, while consumers express interest in buying sea buckthorn-enriched yogurt, they show limited willingness to pay higher prices, highlighting the need for a balanced price-value approach. These insights underscore the importance of sensory enhancement, trust-building, and targeted marketing strategies for functional foods. The study emphasizes the necessity of consumer-centered product development to improve market adoption and long-term success.

## KEYWORDS

Functional foods, consumer behavior, sea buckthorn, novel food products

# **ENTREPRENEURSHIP OF IMMIGRANTS AND LOCAL DEVELOPMENT IN GREECE. RESEARCH FINDINGS**

Ioannis Tsoukalidis<sup>1</sup>, Antonios Kostas<sup>2</sup>, Vasiliki Tsoukalidou<sup>3</sup> and Anastasios Karasavvoglou<sup>4</sup>

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## **ABSTRACT**

This paper aims at investigating immigrant entrepreneurship in the region of Eastern Macedonia and Thrace in Greece after 1990, regarding its effects on economic development and social integration. As part of the research, an extensive literature review was conducted to determine how immigrant businesses affect the economy, job market, and social capital. It also looks at legal and bureaucratic constraints, the absence of or limited access to financial resources, and socio-cultural factors as challenges that immigrant entrepreneurs encounter. The review of the literature uses national and international studies and includes comparative case studies of immigrant entrepreneurship in various host countries. It outlines the success and sustainability of immigrant businesses as being affected by policy frameworks, support networks, and labour market conditions. In addition, this paper aims at explaining how immigrant enterprises can help to solve economic crises and labour shortages, especially in poorly developed or rural areas. The findings show that while immigrant entrepreneurship has many advantages from the economic and social points of view, there are some problems that are related to institutional environments and public attitudes. The study also stresses the importance of designing specific policies to promote the participation of immigrant entrepreneurs and thus, their impact on the economy of the local and regional levels. This research is a contribution to the knowledge of the role of immigrant enterprises in the enhancement of local and regional development, and the findings can be used by policymakers and other stakeholders.

## **KEYWORDS**

Immigrants, Entrepreneurship, Local Development.

## **JEL CLASSIFICATION CODES**

J15, P25

# **DECODING THE IMPACT OF ESG ON FINANCIAL PERFORMANCE: A STRUCTURAL EQUATION MODELING STUDY OF GREEK LISTED COMPANIES**

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## **ABSTRACT**

This study addresses a notable gap in the existing literature regarding the relationship between Environmental, Social, and Governance (ESG) performance and financial outcomes within the context of Greek-listed companies. Specifically, it investigates the pathway through which ESG performance influences improved financial performance, ultimately leading to higher market valuation. Utilizing Structural Equation Modeling (SEM) on a panel data set spanning from 2017 to 2023, the analysis explores both the direct and indirect effects of ESG performance on key financial metrics. As the first study of its kind within the Greek context, the findings demonstrate a robust and positive association between ESG performance and financial outcomes, with consistency across various financial indicators and model specifications. These results underscore the critical role of ESG integration as a driver of sustainable business growth within Greece, offering valuable insights for policymakers and business leaders seeking to enhance corporate performance through responsible ESG practices.

## **KEYWORDS**

ESG, Financial Performance, Market Valuation, Athens Stock Exchange, Structural Equation Modelling.

## **JEL CLASSIFICATION CODES**

G10, G12, G34, C38.

# CREATING RELATIONS AND TERRITORIAL VALUE THROUGH CIRCULAR ECONOMY: THE ROLE OF PROXIMITIES

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## ABSTRACT

In recent years, the circular economy (CE) has emerged as a new paradigm of production and consumption. Defined as an economic system that focuses on eliminating waste through continual use of resources (Kirchherr et al., 2023; Stahel, 2019), its implementation generates various impacts that address the sustainability issues (D'Amato et al., 2017; Dong et al., 2021). CE experiments, as referred to in this paper, represent various practices, e.g., reusing, recycling, repairing, and sharing products and materials to retain their original value as long as possible (Prieto-Sandoval et al., 2018). These experiments aim to limit resource consumption and minimize the environmental impact of producing goods and services (Haupt & Hellweg, 2019). They also hold potential for fostering local economic development (Chen et al., 2020; Veyssi re et al., 2021) or anchoring economic activities (particularly industry) to local contexts (Bourdin et al., 2022; Bourdin & Torre, 2020; Chen et al., 2020).

In the sustainable development realm, the focus recently has shifted toward understanding how the CE can facilitate growth and development processes at the local level. Most studies primarily have emphasized economic and environmental benefits that CE experiments provide for companies and territories (Chen et al., 2020; Veyssi re et al., 2021; Palea et al., 2023; Stucki et al., 2023). Yet, CE experiments can generate value that extends far beyond mere economic or environmental benefits. These additional benefits, conceptualized as "territorial value" (Maillefert & Robert, 2017; 2020), encompass intangible advantages, e.g., strengthened community ties and trust between stakeholders, increased innovation skills, improved well-being, and an enhanced local identity (Chembessi et al., 2021a). And as demonstrated by Bourdin et al. (2022), these CE's benefits contribute to the creation of an environment that promotes sustainable development in the territories. Thus, networking and strengthening relationships among stakeholders, fostering local innovation, and enhancing territorial resilience are then important when evaluating the value generated by circular initiatives. However, how do circular economy projects create extra-economic value at the territorial level? And more particularly what role does proximity play in creating specific types of intangible value? Indeed, studies found that various forms of proximity (Torre & Gallaud, 2022) – namely geographical, relational, and institutional – are resources that actors within a territory can utilize to implement a local collective project such as circular economy experiments (Chembessi et al., 2024). Therefore, our hypothesis is that activating these proximities within the context of circular economy projects enables the creation of territorial value. From this perspective, our paper highlights the diverse and rich value that CE projects – through the activation of various proximities by stakeholders - bring to communities and local economies beyond conventional economic and ecological benefits. It goes beyond a firm-centric understanding of the CE's positive externalities to embrace a more holistic and multidimensional lens. It explores the conditions and mechanisms to create benefits that extend beyond immediate economic and environmental externalities in CE experiments.

To do so, we used data from 70 semi-structured interviews with 51 stakeholders in CE experiments in Kamouraska region (Canada) and La Rochelle (France). These ongoing experiments involved various local actors from businesses, public organizations, community associations, etc., with various circularity practices around material or equipment exchanges between stakeholders.

Our study offers essential insights that can guide local decision-makers in formulating more effective policies and strategies for CE development, promoting CE initiatives for integrated territorial development. It underscores the key roles of geographical, relational, and institutional proximity as resources to generate territorial value, and provide a roadmap for regions to optimize the underlying conditions necessary for CE

projects' success and creation of territorial value. Both case studies illustrate how utilizing existing proximities can generate substantial territorial value in the context of the CE.

# **FINANCIAL CONTAGION AND SYSTEMIC RISK: A COMPREHENSIVE REVIEW**

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## **ABSTRACT**

Aim of the present paper is to review the most important results in the area of financial contagion and systemic risk or to present results in their most refined form. Contagion occurs when defaults by some banks trigger defaults by other banks through a domino effect, while amplification occurs where contagion stops but the losses among defaulting banks keep escalating because of their indebtedness to one another. Financial networks are useful to model the complexity of interactions among banks and other participants in the financial system. Networks are an effective visual method to model and identify all the connections in the financial system. The availability of network information plays a significant role for these studies as well as from other perspectives. Thus In this paper the emphasis is given to a systematic presentation of known results along with some augmentation and generalizations.

## **KEYWORDS**

C30, F32, C10.

# **ENHANCING SOVEREIGN CREDIT RATING COMPARABILITY: A PROPOSAL TO IMPROVE OBJECTIVITY AND TRANSPARENCY**

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## **ABSTRACT**

This paper proposes the introduction of a standardized table for sovereign credit ratings assessments that included the latest available and the five-year averages of a set of ten macroeconomic indicators that would accompany the usual credit rating grade and supporting analysis that credit rating agencies provide. The value added to such a standardized table of indicators is in the additional transparency it would provide for the rating process. It does not change the rating provided, nor does it change the methodology. The supplemental table should serve as an objective presentation of key numbers, easily available, presented in a consistent harmonized manner for all rated countries, and derived from a respected source that enjoys credibility. The transparency could be further enhanced by ranking each indicator according to the decile compared to the ratings of all other rated sovereigns. By enhancing transparency, the standardized table can mitigate the inherent subjectivity of credit rating agency (CRA) assessments without altering their methodologies.

## **KEYWORDS**

Sovereign Credit Ratings, Credit Rating Agencies, Financial Transparency.

## **JEL CLASSIFICATION CODES**

G18, G24, G28.

# UNVEILING DIGITALIZATION'S CONTRIBUTION TO ECONOMIC GROWTH IN THE WESTERN BALKANS THROUGH ICT TRADE AND BROADBAND SUBSCRIPTIONS

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## ABSTRACT

The aim of this research paper is to examine the crucial influence of digitalization on the economic growth of Western Balkan countries over a 15-year period. The annual panel dataset is extracted from the World Bank database and covers the timespan from 2009 to 2023 for the following nations: Albania, Kosovo, Serbia, Bosnia and Hercegovina, Montenegro and North Macedonia. Economic enhancement is placed as the dependent variable, whereas digitalization, the key explanatory variable of interest, is measured through three proxies. Fixed broadband subscriptions capture the infrastructure strength, while, ICT service exports and ICT goods imports measure the trade's digital sectors' contribution to the economy. The regression consists of some other controlling variables such as foreign direct investment, gross domestic savings and lastly, broad money, that reflects the financial development. The Hausman Test confirms the empirical analysis to follow a Random-Effects model. All independent variables of the regression are found to be statistically significant. More specifically, an additional broadband subscription enhances the economy by 2%, and an increase of 1 percentage point in ICT goods imports strengthens the economy by 6.8%. In contrast, a percentage point increase in ICT service exports decrease the economic growth by 4.5%. Next, when FDI and broad money go up by 1 percentage point, the economic growth is boosted by 1.6% and 0.67%, respectively. Interestingly, the gross domestic savings are discovered to shrink the economy by 1.4%. Policymakers in the Western Balkans, enterprises in the region and academics engrossed in digital revolution and economic advancement could benefit from the insights of the paper.

## KEYWORDS

Digitalization, Economic Growth, Western Balkan, panel data

## JEL CLASSIFICATION CODES

O33, F21, E22

# HOW DO GLOBAL CRISES AFFECT ENTREPRENEURIAL INTENTION? EXTENDING THE THEORY OF PLANNED BEHAVIOR

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## ABSTRACT

Global crises, such as economic recessions, pandemics, and geopolitical instability, present formidable challenges to entrepreneurship by amplifying uncertainty, imposing financial constraints, and increasing market volatility. However, these crises also create unique opportunities by spurring innovation, stimulating the emergence of novel business ideas, and fostering the development of entrepreneurial skills as individuals adapt to rapidly changing environments. Understanding the dual nature of crises—both as threats and opportunities—is essential in examining how they shape entrepreneurial intentions, particularly among aspiring entrepreneurs. This study builds on the Theory of Planned Behavior (TPB) to explore the impact of global crises on entrepreneurial intentions. A structured questionnaire was administered to university business students in Cyprus to gather data, which was then analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that the perception of opportunities arising from global crises positively influences perceived behavioral control, which subsequently has a direct positive effect on entrepreneurial intention. This research incorporates the perception of crisis-induced opportunities within the TPB framework, thereby extending the current literature on entrepreneurial intention. The findings offer meaningful theoretical contributions regarding how global crises can shape entrepreneurial behavior. Moreover, the findings provide practical insights for educators, policymakers, and support programs seeking to cultivate entrepreneurship in an increasingly uncertain global landscape.

## KEYWORDS

Global crises; entrepreneurship; entrepreneurial intention; theory of planned behavior (TPB); geopolitical trends; Cyprus

## JEL CLASSIFICATION CODES

L26; D01

# **SOCIAL NETWORK AND E-GOV APPS: DO GREEK CITIZENS TRUST THEM?**

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## **ABSTRACT**

The use of social networks and e-government applications by the public sector represents a pivotal shift towards digital governance, aiming to enhance transparency, efficiency, and citizen engagement. Social networks provide platforms for direct communication and information dissemination, fostering a sense of accessibility and responsiveness among citizens. Similarly, e-government applications streamline administrative processes, enabling citizens to access services, submit applications, and receive updates conveniently. Together, these digital tools are reshaping the relationship between the public sector and citizens, emphasizing trust, usability, and inclusivity as critical factors for successful adoption.

This study examines the attitudes of Greek citizens towards their trust in the use of e-government applications and social networks adopted by the public sector, utilizing data collected through a primary survey conducted in Autumn 2024. A random sample of 578 Greek citizens provided insights into their perspectives, forming the basis for a robust analytical approach. Principal Component Analysis (PCA) was employed to identify the primary dimensions underlying citizens' trust in these digital tools, revealing key factors influencing their perceptions. To further explore these attitudes, cluster analysis was conducted, segmenting respondents into distinct groups based on their trust levels and attitudes towards e-government and public sector social networks. Non-parametric statistical tests, including chi-square analysis, were applied to delineate the demographic profiles of these clusters, uncovering significant relationships between demographic variables and trust dimensions.

## **KEYWORDS**

E-Government, Digital Marketing, Public Sector, Internet, Social Networks

# CITIZENS' ATTITUDES AND VIEWS ON CLIMATE CHANGE: THE CASE OF REGION OF EASTERN MACEDONIA AND THRACE IN GREECE.

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## ABSTRACT

Climate change poses significant hazards, including rising global temperatures, extreme weather events, loss of biodiversity, and disruptions to water and food security. These impacts threaten ecosystems, economies, and communities, particularly in vulnerable regions. Nature-based Solutions (NBS) offer a promising approach to address these challenges by leveraging natural processes to mitigate climate change effects and enhance resilience.

Understanding citizens' attitudes towards climate change is crucial for shaping effective policies and fostering sustainable practices. This study focuses on exploring how citizens perceive their roles, responsibilities, and possibilities for mitigating and adapting to climate change, with a particular emphasis on NBs. Conducted in the spring of 2024, a primary survey targeted a sample of 150 citizens in the Region of Eastern Macedonia and Thrace, Greece. The findings aim to provide valuable insights to local and regional authorities for designing climate policies and ensuring successful implementation at the farm level.

To analyze the data, multivariate statistical techniques were employed. Principal Component Analysis (PCA) was used to identify key views and attitudes towards citizens' roles and responsibilities concerning climate change. Subsequently, hierarchical and non-hierarchical cluster analyses were applied to classify respondents into groups with similar attitudes. Quadratic discriminant analysis assessed the predictive power of the PCA-derived factors for cluster membership. Finally, non-parametric statistical tests were conducted to develop demographic profiles of the identified groups and characterize their farms.

The study underscores the importance of integrating citizens' perspectives into climate change policies. By aligning policy goals with the attitudes and capabilities of local populations, stakeholders can enhance public engagement, optimize resource use, and ensure the successful adaptation and mitigation of climate change impacts within the agricultural sector.

# CROSS GENERATIONAL DIFFERENCES IN E-GOV APP USAGE: AN EMPIRICAL INVESTIGATION OF PUBLIC ATTITUDES AND PERCEPTIONS

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## ABSTRACT

E-government (e-gov) involves using information and communication technologies to address governance challenges. In the digital age, e-government has evolved into a more integrated and transactional tool, enabling public officials to solve problems and allowing citizens to monitor public administration. The COVID-19 pandemic accelerated the adoption of e-government services, making online transactions, remote work, and distance learning everyday practices in society.

This study examines the attitudes of Greek citizens toward e-government applications. A survey was conducted in the summer of 2024, involving a random sample of 747 participants from Generation X and Generation Z in the Eastern Macedonia and Thrace region. Principal Component Analysis (PCA) was utilized to identify key attitudes of these generations toward e-government use.

For Generation X, PCA revealed three primary factors: (a) addressing challenges in the existing information infrastructure, (b) saving time and enhancing service quality, and (c) promoting transparency and control in public administration. For Generation Z, two main factors emerged: (a) improving service quality and transparency, and (b) addressing information infrastructure issues.

The study also performed a cluster analysis to classify individuals based on their attitudes. Generation X was divided into four clusters: (a) those prioritizing improved citizen service, (b) those emphasizing better public administration, (c) the indifferent group, and (d) those valuing time savings and transparency. Generation Z was grouped into three categories: (a) those focused on service quality improvement, (b) those prioritizing public administration improvement, and (c) the indifferent group.

Non-parametric tests, such as the chi-square test and the One-Way Friedman Test, were applied to profile these clusters, analyzing their primary reasons for using e-government applications, satisfaction levels, and demographic characteristics.

## KEYWORDS

E-Government, Digital Marketing, Public Sector, Internet, Civil Servants' Attitudes

# KEY DETERMINANTS OF ALBANIA'S INTEREST RATES

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## ABSTRACT

Interest rate is one of the main economic indicators for a country and at the same time it is considered a crucial monetary policy instrument used mainly to counter inflation. This indicates that interest rates are determined, not only by supply and demand, but also from Central Banks' interventions. This study empirically analyzes the interest rate volatility macroeconomic determinants in Albania, using time series data from 1994-2023, employing Ordinary Least square simple linear regression and descriptive statistics. The annual data were sourced from World Bank Indicators and Bank of Albania, considering the following macroeconomic variables: inflation, foreign direct investment, remittances, GDP growth. Findings of the study show that only remittances, inflation and exchange rates have a significant impact on Albanian interest rates. Exchange rates of ALL/USD and remittance inflows appear to have a positive relationship with interest rates, indicating that any increase in each of these variables will increase interest rates. While inflation shows a negative relationship with interest rates, indicating that any increase in inflation would contribute to a decrease in interest rates. This paper provides valuable information to policymakers in better understanding key drivers of interest rate movements in developing countries, particularly in Albania.

## KEYWORDS

Interest rate volatility, inflation, exchange rate, remittances, FDI, GDP growth.

## JEL CLASSIFICATION CODES

G1, G120, G4

# “THE FACTORS IMPACTING THE YIELD OF ZERO-COUPON BONDS, CASE OF USA”

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## ABSTRACT

The purpose of this paper is to examine in details the effects of macroeconomic factors on the yield of 10-year Zero Coupon Bonds in the case of USA. The factors taken into account are Inflation rate, GDP percentage changes and Market Yield. This study has taken into account monthly data for all the variables from January 2015 to December 2024. The methodology used is OLS (Ordinary Least Square) regression model and several tests have been performed on the data in order to satisfy all the assumptions of this methodology. The results suggest that Inflation and Market Yield have a significant positive effect on Yield, while the GDP percentage changes have a minor yet significant negative impact. The explanatory power of the model is relatively high with a value of 98.8%, meaning that 98.8% of the model is explained by the variables included within it while 1.2% is explained by variable not included within the study which are part of the error terms. All the tests and assumptions have been passed by the data, which ensures the credibility of the model. This research contributes to the existing literature by offering a focused analysis of zero-coupon bonds, which are often overlooked in traditional bond yield studies. The findings enhance financial decision-making for investors and economic policy formulation.

## KEY WORDS

Zero Coupon Bonds, Yield, Macroeconomic factors, OLS regression.

## JEL CLASSIFICATION CODES

G1, G120, G4

# THE DETERMINANTS OF ALBANIA'S EXCHANGE RATE

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## ABSTRACT

The exchange rates have a crucial role in the economy, from shaping trade flows to the very stability of a country's economy, which is why it is crucial to understand the drivers that impact the exchange rate movements in order to maintain exchange rate stability. This study empirically analyzes the exchange rate determinants in Albania relative to the US dollar with a time-series analysis from 1994 to 2023, by applying an Ordinary Least Squares (OLS) regression model. Annual data sourced from the Bank of Albania and the World Bank take into account key macroeconomic variables, including inflation, interest rates, money supply, gross domestic product (GDP) and current account balance. Findings of this study indicate that inflation and money supply have a depreciative impact on the Albanian lek, while interest rates and GDP growth lead to currency appreciation. The current account balance also shows a significant impact on exchange rates, with continuous deficits resulting in the depreciation of Albanian lek. This study expands the limited research on Albania's exchange rate dynamics, offering insights to policymakers on key economic indicators and their impact of exchange rates.

## KEYWORDS

Exchange rate determinants, Albania, Macroeconomic factors, Inflation, Money supply, Current account balance.

## JEL CLASSIFICATION CODES

G1, G120, G4

# SUSTAINABILITY AND ENTROPIC ECONOMIC GROWTH

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## ABSTRACT

Economic theory is intricately linked to the concepts of economic growth and sustainability. The concurrent achievement of economic growth, social and environmental protection constitutes the generic definition of sustainability. However, these goals often conflict with one another, whilst the realization of such sustainability remains a significant challenge, if not an idealistic or utopian aspiration. Several fundamental limitations have hindered progress in economic theory. A prime example of this is the reluctance to recognize the inherent boundaries of economic growth. Traditional economic theories tend to overlook the empirical realities of economic growth and its environmental implications, particularly in relation to energy availability. The notion of continuous economic growth stands in direct contradiction to the constraints imposed by energy limitations, which are governed by the fundamental principles of thermodynamics.

The First Law of Thermodynamics asserts that total energy is conserved, a principle that applies universally. The Second Law of Thermodynamics, also known as the law of entropy, pertains to the finite nature of natural resources, asserting that organized systems naturally tend toward a state of disorder, simultaneously converting free energy into bound energy. This implies that the excessive exploitation of resources may ultimately lead to stagnation. The principle of entropy is not only applicable to natural systems but also to economic systems. The inherent trajectory of economic systems tends toward increasing entropy, a process that is not always immediately perceptible but becomes evident only when natural restoration is no longer feasible, and economic recovery proves excessively costly.

This paper explores the entropic growth challenge associated with sustainability. It traces the historical development of the concept of entropy and connects it to contemporary issues in sustainability. Entropy is not only associated with the scarcity of natural resources but also with the excessive use or exploitation of resources, practices, or policies that may ultimately pose risks to a sustainable economic pattern. The law of entropy operates inexorably, particularly in relation to the transformation of matter, but the economic system possesses certain capacities to resist entropy through deliberate actions and adaptations. Thus, the transition toward sustainability involves a comprehensive reevaluation of the various factors, processes, behaviors, and perceptions that collectively constitute the economic activity. The critical question remains whether and under what conditions a genuine sustainability is achievable.

## KEYWORDS

Sustainability, Entropy, Growth, Energy.

## JEL CLASSIFICATION CODES

G01, B26, Q01

# PERMANENT SUPPORT OF THE AREA OF SUSTAINABILITY AND ESG REPORTING IN INSURANCE COMPANIES

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## ABSTRACT

Today's insurance companies, like the entire financial sector and other entities, are obliged to undertake a variety of ESG activities.

The CSRD replaces the existing NFRD (Non-Financial Reporting Directive), requiring publication of non-financial disclosures. The NFRD applies to large public interest entities with more than 500 employees, the CSRD will apply to a larger group of companies (from 12,000 to 50,000). Expanding on sustainability issues, the CSRD requires all EU listed companies and large companies and public interest entities (meeting at least 2 of the following 3 requirements: average annual employment 250 persons, annual net turnover 40 million EUR, balance sheet total 20 million EUR) to implement mandatory sustainability reporting standards.

This article focuses on the steps taken by insurance companies in creating a strong and sustainable commitment to socially responsible and environmental activities. The subject of the analysis is selected markets in Central and Eastern Europe. As a consequence of previous changes in the environment and pressure from stakeholders, various types of activities of insurance companies have emerged in the field of operational activities (e.g., less energy, paper consumption), product activities (promoting those customers who apply ESG solutions in their operations), investment activities (choosing appropriate investment directions), or marketing activities (supporting conferences and activities of other organizations in the field of ESG). But the difficulty is the sustainability of these activities. Therefore, it is necessary to have a good understanding of the implications of mandatory non-financial reporting. For many fintechs, this is a very big challenge, but a detailed approach allows building a strong business. The key element of CSRD disclosure is dual materiality analysis. Insurance companies affect the environment and society through their decisions, actions and products, which is called the inside-out environmental and social perspective. On the other hand, the environment and society affect the insurance company, generating risks and opportunities. Responding to emerging ESG factors affects the value of the company, and it is necessary to build sustainable underwriting, pricing and liquidation activity models. Only on a good understanding of an insurance company's impact opportunities can one build one's ESG strategy, determine methods for calculating the footprint or identify reporting techniques. The article shows how to build ESG solutions that will be sustainable solutions and not expose the financial institution to accusations of greenwashing.

## KEYWORDS

ESG (Environmental, Social, Governance), sustainability, ESG reporting, dual materiality, insurance market

## JEL CLASSIFICATION CODES

G3, G22, Q56

# **CRITICAL FACTORS DRIVING BUSINESS SOLAR ENERGY ADOPTION IN EMERGING ECONOMIES**

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## **ABSTRACT**

In light of rising environmental concerns and the pressing need for sustainable energy solutions, this study aims to research the complex interaction of economic, social, technological, legal, and environmental aspects influencing solar energy integration in the business sector in Albania. Leveraging the Technology Acceptance Model (TAM) framework, it investigates how factors such as (i) initial investment cost, (ii) environmental concerns, (iii) perceived risk and trust, (iv) financial incentives, and (v) relative advantage compared to traditional energy sources influence businesses' decisions to delve deeper into business owner perceptions towards solar energy adoption. Study findings reveal that appropriate and tailor-made financial incentives are a crucial factor influencing the solar energy adoption decision. The research comes up with practical implications for policymakers to develop evidence-based and tailored strategies that promote solar energy use among Albanian businesses.

## **KEYWORDS**

Renewable energy, environmental sustainability, solar panels, Albania

## **JEL CLASSIFICATION CODES**

O31, O33, O38

# BEHAVIORAL BIASES IN STUDENT INVESTMENT DECISIONS IN GREECE

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## **Abstract**

This study examines the influence of behavioral biases and financial literacy on investment decision-making among undergraduate students in Greece. Drawing on a sample of 100 students with some level of financial knowledge, this research investigates how common biases, such as overconfidence, loss aversion, and familiarity bias, affect their investment choices. The study also explores whether financial literacy can mitigate or exacerbate these biases. By using a quantitative approach through a structured survey, the research aims to provide empirical insights into how young investors' financial knowledge interacts with cognitive biases. The findings contribute to the literature by enhancing understanding of the behavioral finance dynamics in student investors. Managerial implications emphasize the need for targeted financial education to improve decision-making among young investors. The paper concludes with suggestions for future research on the role of financial literacy in addressing cognitive biases in investment decisions.

## **Keywords**

Financial Literacy, Behavioral Finance, Investment Decisions, Behavioral Biases.

## **JEL Classification Codes:**

G1, G10

# **DIGITAL TRANSFORMATION IN PORT CONTAINER OPERATIONS: A PLATFORM FOR ENHANCED SUPPLY CHAIN VISIBILITY, TRANSPARENCY, AND TRACEABILITY**

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## **ABSTRACT**

The global supply chain landscape increasingly depends on the efficiency and security of intermodal container logistics. However, fragmented data systems and a lack of real-time coordination pose significant barriers to operational visibility, transparency, and traceability. This study presents a mapping of container logistics operations and the design of a digital platform that enhances end-to-end visibility, transparency, and traceability across the container lifecycle that has been realized within the framework of the “Internet of Containers (IoC)” project. The operational ecosystem was documented and analyzed through empirical work at the Port of Thessaloniki in Greece. A cloud-based platform prototype was developed, integrating real-time tracking technologies (e.g., IoT sensors, GPS), intelligent documentation workflows, and stakeholder access controls to streamline coordination among shippers, freight forwarders, port authorities, and end customers. Preliminary findings demonstrate improvements in traceability, reduced administrative workload, and increased trust among partners. The research contributes to the discourse on digital transformation in logistics and supports policy frameworks to create greener, smarter, and more resilient freight systems in maritime logistics. The work is funded within the framework of the “Innovation Investment Plans” Programme of the Region of Central Macedonia (Programme code: KMP6-0273918, MIS code: 5136533).

## **KEYWORDS**

Port container operations; supply chain visibility, transparency, and traceability; digital platform; intermodal logistics

# STRATEGIC APPROACHES TO ENVIRONMENTAL SUSTAINABILITY AND GREEN SUPPLY CHAIN MANAGEMENT. AN EMPIRICAL CASE STUDY

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## ABSTRACT

As global attention toward environmental sustainability intensifies, industries are increasingly urged to adopt responsible practices. This study addresses the gap in environmental sustainability research within the Albanian beverage industry by exploring the effectiveness of Green Supply Chain Management (GSCM) strategies. It aims to assess how GSCM strategies contribute to improved environmental performance and enhanced consumer awareness.

A mixed-methods approach was employed in this study, combining quantitative surveys with qualitative focus groups. Data were collected from 31 beverage companies, engaging supply chain managers and sustainability officers to evaluate the implementation and impact of GSCM practices. Quantitative data were analyzed using descriptive statistics, factor analysis, and multivariate regression via R software, while focus groups provided insights into consumer perceptions and awareness regarding GSCM practices.

Findings demonstrate that key GSCM practices—such as green purchasing and eco-design—enhance operational efficiency and environmental outcomes. Regulatory frameworks also play a crucial role in facilitating these practices. The focus groups revealed that while consumers are generally supportive of environmentally friendly initiatives, there is a need for greater awareness and clearer communication from companies.

This empirical case study contributes to the growing body of literature on sustainable supply chains in developing economies, offering strategic recommendations for industry practitioners and policymakers. It underscores the dual value of GSCM in promoting both ecological integrity and economic competitiveness.

## KEYWORDS

Green Supply Chain Management, Environmental Sustainability, Beverage Industry, Albania, Customer Awareness

## JEL CLASSIFICATION CODES

D22, M11, Q01