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INTERNATIONAL HELLENIC UNIVERSITY, DEPARTMENT OF FINANCE AND ACCOUNTING, KAVALA, GREECE  
UNIVERSITY OF THE AEGEAN, DEPARTMENT OF BUSINESS ADMINISTRATION, CHIOS, GREECE

# Book of Abstracts



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## SCHOOL TO WORK TRANSITIONS AND COVID19 - A STUDY OF THE WESTERN BALKANS

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### ABSTRACT

This study investigates the effects of Covid19 on school-to-work transitions for the case of the Western Balkans 6 countries (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia). Using cohort analysis, we estimate the differences in the length of time documented by the youth before and during Covid19. We use the cross-sectional data from the 2017 to 2022 waves of the Public Opinion (Regional Cooperation Council). Control variables include standard demographic and socio-economic information at the individual level. Also, labour market controls and year fixed effects are included in the model with cross-country analysis using a small set of countries. This allows for a comparison of the performance of each of the WB6 countries with each other. The findings suggest that there are negative effects associated to the length of school-to-work transitions for the Covid19 (2020 – 2022) period compared to the previous period (2017 – 2019). These results are robust across countries, gender, education, and labour market experience.

### KEYWORDS

School to work transitions, Western Balkans, Post-Communist, Covid19, cohort analysis.

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## PERMISSIBILITY OF APPROVAL AND OTHER FEES IN CONSUMER LOAN CONTRACTS IN SERBIA

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### ABSTRACT

The financial system in Serbia, similarly as in other countries from the Western Balkans, has been dominated by foreign-owned banks largely originating in the European Union. As a candidate country, Serbia must work towards harmonizing domestic legislation with the European Union's *acquis* in regard to the protection of consumers, including consumers of financial services. Still, it is not only that legal convergence must be seen formally in the national legislation, it is the implementation of that legislation that is even more important. However, the implementation has exposed multiple serious issues, one of them being thousands of lawsuits filed by banks' customers to return approval and similar fees banks charged in consumer loan contracts in addition to interest. This research sheds new light on this issue. The analysis focuses on legal texts but it takes economic and social context into account as well. The research is an important contribution to the ongoing debates on these questions from a consumer point of view.

### KEYWORDS

Serbia, banks, approval fees, consumer protection, EU *acquis*.

## **INVESTIGATING THE IMPACT OF EMPLOYEE MOTIVATION ON EMPLOYEE PERFORMANCE. A SURVEY OF INDONESIAN EMPLOYEES**

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### **ABSTRACT**

Employees in any workplace around the world should feel motivated to achieve optimal results. Older and more recent research in this area demonstrates the importance of motivation to employee productivity and organizational performance. This study goes a step further by examining the impact of three specific factors on employee performance: financial factors, career aspirations, and mutual relationships. Data was collected from 150 employees in Indonesia with at least one year of work experience. The results of this study show a positive relationship between employee motivation and employee performance, which supports previous research findings and underscores the importance of motivation as an effective tool for today's managers who must respond to unprecedented challenges in a rapidly changing environment.

### **KEYWORDS**

Employee satisfaction, employee performance, survey, Indonesia

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## **DIGITALIZATION AND ITS LIMITS TO REDUCING ECONOMIC AND SOCIAL DIVIDE IN NORTHERN GREECE**

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### **ABSTRACT**

It has been a global trend towards moving many economic and social activities online. However, rural areas in Greece struggle to maintain access to digitalization and possibilities of employment, education and public service, considering the exodus of qualified young people and demographic changes such as aging population. Can digitalization empower people so as to bridge the economic and social divide between urban and rural areas? This question is crucial in Greece, considering that the country has a large public debt and that the economy has not yet fully recovered from the financial crisis that started in 2008. The sustainability of economic recovery and further reducing public debt has already been challenged by the Covid-19 pandemic. It is now again challenged by other economic and political issues such as the shock of energy prices and the war in Ukraine. This paper briefly explores the case for digitalization in agriculture and tourism in Northern Greece. The study looks at the limitations of digitalization in ensuring economic sustainability so as to bridge the economic and social divide between the urban and rural areas.

### **KEYWORDS**

digitalization, rural areas, agriculture, tourism, Northern Greece.



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## PHILOSOPHICAL AND SOCIAL APPROACH TO THE PHENOMENON OF CLIMATE CHANGE

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### ABSTRACT

The main goal of this research paper is to indicate the significance and importance of climate change, which directly affects a multitude of social activities, making it one of the dominant risks of the future that should be observed with special attention. The subject of this paper is the elaboration of climate change and the conclusion that it exists and has a decisive influence on people's lives since ancient times, and not only since its scientific definition. The first part of the paper refers to the theoretical definition of climate change, emphasizing its negative consequences, with a clear presentation of the main causes and "culprits" for endangering life activities. The second part is devoted to a pluralistic and multidisciplinary approach to the various components of the phenomenon of climate change, i.e. its observation from the perspective of philosophy, ethics, politics, economics, sociology and other activities. The last part refers to the creative observation of the phenomenon of climate change through the "life cycle" of the green color, as an inspiration of the struggle for ecological postulates and principles of life. Moving from a non-permanent color, i.e. "given" (it is everywhere), through a color of secondary importance and up to modern ecological recognition, the path of the green color is followed through the methodology of the time train, which emphasizes the key germs or points of change in social circumstances and metaphorically connect them with climate change. Climate change is an important factor in making all kinds of decisions in the future. In this regard, collective actions and broad social consensus are needed to prevent the negative effects of climate change.

### KEYWORDS

Climate change, Philosophy, Green color, Climate crisis, Time train.

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## A GUARDIAN OF THE EUROPEAN MONETARY UNION: HOW THE ECB PROTECTED THE EUROZONE AGAINST THE COVID-19 PANDEMIC

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### ABSTRACT

The world faced an unprecedented health crisis that, besides causing the lives of millions of people, disrupted the economic/trade/productive structures worldwide. European countries were hit hard by the COVID-19 pandemic and suffered great human and economic losses. The paper examines the role of the European Central Bank (ECB) in the COVID-19 pandemic. The ECB was one of the first European institutions responding to the situation by activating certain monetary tools in response to the economic downturn. In March 2020, the ECB announced a new monetary tool, the Pandemic Emergency Purchasing Programme (PEPP), which calmed the markets and offered a lifeline to the Eurozone member-states, especially those most affected by the COVID-19.

The paper discusses how the ECB used the PEPP to support the Eurozone during the COVID-19 pandemic and examines why the Outright Monetary Transactions (OMTs) were not used instead. The core differences between the PEPP and OMT programmes are described. Finally, the paper presents the key changes regarding the ECB's role and response in the COVID-19 pandemic and examines if they constitute a paradigm shift in European monetary policy.

**KEYWORDS**

European Central Bank, Monetary Instrument, Monetary Policy, Open Market Operations, Policy Effects.

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**ON THE IMPORTANCE OF GOVERNMENTAL SUPPORT ON SMES PERFORMANCE: AN ANALYSIS OF WESTERN BALKAN ECONOMIES**

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**ABSTRACT**

Our paper focuses on analysing the level of digitalisation of Small and Medium Enterprises (SMEs) and their economic performance impact in Western Balkan countries. We use panel data from Enterprise Surveys (ES) from 2018 to 2020, a shared project of the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), and the World Bank Group (WBG). The selected countries are Albania, Bosnia and Herzegovina, North Macedonia, Kosovo, Montenegro, and Serbia. The questions included in the dataset contribute to understanding what firms experience in the private sector. Collected data are based on firms' experiences and enterprises' perceptions of the environment in which they operate. Our paper measures enterprise performance in terms of sales, employees and fixed assets growth. The vector of independent variables comprises enterprise characteristics such as enterprise age, size, ownership structure, legal status, access to formal banking services, gender ownership, and other composed variables. Moreover, to capture the level of governmental support SMEs, we will focus on the following ES questions: Whether enterprises received support in the form of (1) cash transfers, (2) deferral of payments, (3) access to new credit, (4) fiscal relief, (5) wage subsidies, or (6) some other form. Preliminary empirical research results shed light on the positive effect of government support on enterprises' performance. However, the magnitude and statistical significance are different among the countries included in the sample.

**KEYWORDS**

Firm Performance, Entrepreneurship, Governmental Support.

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## THE IMPACT OF THE COVID-19 PANDEMIC ON THE DIGITAL TRANSFORMATION OF SMES: AN EMPIRICAL STUDY

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### ABSTRACT

Multiple studies indicate that the outbreak of COVID-19 has accelerated the digital transformation of businesses worldwide and has also highlighted the importance of digital capabilities such as e-business, digital marketing, data analytics, automation, and cybersecurity. Many companies have had to rapidly adapt to these changes in order to continue operating during the pandemic. This empirical research examines the impact of the pandemic on the ongoing digital transformation of SMEs across various industries in Greece. It also delves into the implications of digital transformation on employment and the workforce, including the need for reskilling and upskilling. Results from 160 respondents highlight that the pandemic has presented opportunities for companies to innovate and improve their digital capabilities and has led to a rapid increase in digital marketing, e-commerce, remote working, and cloud computing. However, it's important to note that not all companies have been able to adapt to digital transformation equally and some have faced challenges, such as a lack of digital skills, difficulties in implementing new technologies, and security concerns.

### KEYWORDS

Digital Transformation, Digital Technology, e-Business, Information Systems, Covid-19 Pandemic.

## HOW GOVERNMENT DIGITAL SERVICES HELPED BUSINESS PROCEDURES IN THE COVID-19 ERA: THE CASE OF GREECE

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### ABSTRACT

It is well known that the digitalization of government and other public services during the first three years of Covid-19, played a crucial role in the sustainability of businesses around the world. Digitalization not only helped businesses to perform better, but it also made them more cost-efficient, productive, and competitive. In Greece, there was a great need to digitalize Government services during the first lockdown. The implementation of GOV.gr, a system that gathers all the important services of the Greek government, played a massive role in the sustainability of small and medium-sized businesses. In conclusion, our main goal with this paper is to examine, through the latest literature, publicly available data, studies, and reports, how Governmental digital services transformed Business procedures in the covid-19 era. Additionally, through our paper, we will also try to answer questions that will help us understand the current situation in Greece. Some of these questions include the difficulties that entrepreneurs had before the digitalization of governmental services in that period and lastly, how the Greek Government was able to help, through various initiatives.

### KEYWORDS

Digitalization, Covid-19, Greece, Businesses.

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## CULTURAL AND LANDSCAPE ELEMENTS IN THE INTEGRATED LOCAL DEVELOPMENT STRATEGIES IN GREECE

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### ABSTRACT

The European common agricultural policy (CAP), and especially Pillar II, empowers the social, economic, and environmental aspects of European regions under a constantly updated policy. The concept of culture, in the countryside of Greece, is found in all these three aspects, with different gravity and frequency in each one. However, generally, more importance is given to the development of rural areas through the differentiation and the multifunctional of their economic sectors with the cultural and creative activities as supplementary ingredients of a local product, and with less importance to the establishment of cultural utilization strategies with a fundamental role to the local development policies. The purpose of this study is to identify the degree of influence of culture and the aesthetics of the rural landscape, as components of local

strategies for the development of the rural area. In the frame of the present study, data from Community-led local development strategies of the region of Central Macedonia during the period 2014–2020 were used. The analysis of these data is trying to estimate the contribution of local culture and the extent of its integration into the local integrated development programmes that were studied. After three decades of implementing relevant European initiatives, and local rural development strategies, clearly seems that the concept of culture continues to include in the local business plans direct or indirect. Nevertheless, the direct cultural actions of the local programs are limited, in the level of projects' numbers, as a percentage of the total budget, and importance to the whole strategies. Additionally, these local strategies do not treat landscapes as cultural products. The cultural politics of the rural landscape is a demanding and complex task, as a result of a mixture of globalization, local history and tradition, and the current local political context. It is hoped that this study will contribute to the design improvements of local development strategies through the promotion of a more integrated character that will have as a convolution theme the rural culture and landscape.

#### **KEYWORDS**

Rural Landscape, Cultural Heritage, Regional Development, CAP, Greece.

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## **UNDERSTANDING THE PERCEPTIONS OF AGRI-FOOD BUSINESSES TOWARDS DIGITAL TRANSFORMATION AND GREEN ENTREPRENEURSHIP**

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#### **ABSTRACT**

On the way to Industry 5.0, governments throughout the world are developing strategic frameworks to educate, assist, and steer the agri-food industry and supply chains toward the development of sustainable innovation processes. Businesses in the agri-food sector not only meet the needs of consumers and has a significant impact on the environment, but it is also characterized as strategic in the transformation process and should be fostered for creating a more sustainable, inclusive, and resilient society. However, this transformation is neither simple nor immediate. The main challenges that agri-food businesses are called upon to resolve focus mainly on reducing environmental impact, managing social issues, solving supply chain network design problems, coping with economic pressure, meeting the needs expressed by conscious and more demanding consumers, and complying with regulations. In this context, digital transformation has the potential to play a significant role in bridging the gap between the agri-food sector, new technologies, and green entrepreneurship. The objective of this study is twofold: (i) to investigate the perceptions of businesses in the agri-food sector in Greece toward digital transformation and (ii) to highlight the path for the development of a business model that will be based on the archetypes of digital transformation as well as the perceptions of businesses within the sector. To approach the research question the technique of interviews in a focus group of 25 CEOs was applied, from the Greek agri-food sector. A special

questionnaire was designed to facilitate the discussion between the researcher and CEOs and to collect the appropriate data. The software of qualitative analysis NVivo 12 Plus was used for the visualization of the findings. Despite earlier technological revolutions in agri-food sector, the present revolution of Industry 4.0 is being ignited at numerous points throughout the agri-food value chain. The capacity to collect, use, and analyze huge volumes of machine-readable data on almost every part of the value chain, as well as the rise of digital platforms upsetting existing business models, are driving the change. Furthermore, CEOs indicate that digital transformation can significantly improve business performance in a sustainable manner.

**KEYWORDS**

Digital transformation, business model, green entrepreneurship, agri-food sector, Greece, Industry 5.0, sustainability.

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**THE EFFECT OF TELEWORK ON EMPLOYEE ENGAGEMENT:  
AN EMPIRICAL APPROACH**

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**ABSTRACT**

The present paper investigates the impact of telework on employee engagement in public sector and the mediating effect of work –family conflict on the relationship between role overload and role ambiguity and employee engagement. The literature review provides an overview of the extant literature on telework, role overload, role ambiguity, work – family conflict and employee engagement. A sample of 360 employees in several local branches of public sector across Greece was used and data were collected with the use of online structured questionnaires and subsequently analyzed by Partial Least Squares Structural Equation Modeling (PLS-SEM) using "SmartPLS 3.3.5". Based on the research findings there is a positive and statistically significant relationship between role ambiguity and work – family conflict, role overload and work – family conflict and with work – family conflict having a negative impact on employee engagement. Finally, the research finds that work – family conflict acts as a partial mediator, mediating the relationship between role overload and employee engagement, but not the relationship between role ambiguity and employee engagement.

**KEYWORDS**

Telework, Employee Engagement, Public Sector.

## INNOVATIONS AND GREEN DEVELOPMENT: ARE A WAY OUT FOR THE SMALL AND MEDIUM ENTERPRISES OF THE WESTERN MACEDONIA REGION?

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### ABSTRACT

Apart from being one of the main subjects of economic science, small and medium-sized enterprises (SMEs) become particularly important when they are located in areas under intense economic stress or sudden changes in their production base. At the European Union (EU) level, small and medium-sized enterprises are the backbone of the European economy and represent 99.8% of all businesses in all sectors except finance in the EU. For this reason, the E.U. provides support to small and medium enterprises through local, regional, and national authorities, but also information on innovations and exports. In Greece, their number is close to 99.9% of the total number of businesses and they cover a wide range of activities in all economic sectors. The twelve-year economic recession recorded by the Greek economy and the pandemic that has followed made the survival of small and medium-sized enterprises a not-so-easy task. In the region of Western Macedonia, these effects in combination with the measures for decarbonization of the production of electricity in Greece have rapidly decreased the number of local SMEs and affected their operation. The study aims to assess the difficulties faced by small and medium enterprises in the region of Western Macedonia during the last five years and to highlight their possible way out through Innovations and Green Development. For this purpose, a questionnaire was used, which was drawn up for data collection by the SMEs of the region. According to the results of the survey, the shock of the energy transition combined with the economic crisis and the Covid-19 virus dramatically limited and stopped the development of small and medium enterprises in Western Macedonia. These kinds of businesses shrank, and they lost their importance to local income and employment. The majority of SMEs believe that margins for recovery are limited and the investments in innovation and Green Development that significantly increasing the last few years in the area are related mainly to large and multinational enterprises and less to the SMEs. The role of the SMEs in Green Development and renewable energy sources could be mainly supporting these large energy companies through trading activities and more significantly in the primary sector to the fields of bio and 'new' cultivations, and bio and traditional products.

### KEYWORDS

Small and Medium Enterprises, Innovation, Green Development, Western Macedonia Region, Renewable Energy.

## THE ANALYSIS OF PUBLIC DEBT STOCK BY USING SYSTEM DYNAMICS: TÜRKİYE EXAMPLE

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### ABSTRACT

With the 2008 global financial crisis, many countries have applied partly expansionary fiscal policies. These expansionary fiscal policies encompassed tax cuts and increases in government expenditures. As result of these government policy measures and the widespread use of borrowing policy caused an increase in public debt stock in economies. Therefore, countries should apply more stable and efficient policies for debt management today. Public debt stock is an important economic issue in developing economies. Therefore, the sustainability of public debt management is important for ensuring economic stability in countries. As a reflection of the changes in the economic and financial structure, the increase and spread of diversification in financial markets, the increase of investors, and the interconnection of markets in the globalization process necessitated the creation of new policies in public debt management. Hence, it is substantial that the public debt stock, which is an important tool in the hands of the government, can be maintained by debt managers. Some economic situations have far-reaching consequences. It is accepted in the literature that such economic conditions have affected economic growth, put heavy burdens on future generations, caused financial markets to deteriorate, and even increased the risk of melting these markets. One of these conditions is public debt. The purpose of our study is to develop a dynamic macroeconomic model that identifies the structure of public debt which has great importance for the Turkish economy. Also, it is planned to reveal the relations and elements of public debt stock by using the system dynamics method. System dynamics models have an important role in the analysis of the structure of public debt because they can incorporate multiple variables into the system and run feedback loops simultaneously. Such models allow us to see the dynamic consequences of different policies with certain variables. Furthermore, these models bring out the policies' outcomes that policymakers plan to implement in the future through simulation. Thus, a powerful tool will be formed for policymakers to manage the financial system in a more balanced and efficient way by showing public debt structure with various variables based on system dynamics. The model was run with various scenarios using Türkiye's economic data; thus, it was determined with which variables the public debt stock could be sustained. As a result, it has been concluded that public investments as a type of public expenditure should be increased if it aims to maintain the Turkish economy's public debt stock.

### KEYWORDS

Public debt, System dynamics method.



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## THE APPLICATION OF SOCIAL NETWORK ANALYSIS TO ECONOMIC AND REGIONAL DEVELOPMENT: TERTIARY EDUCATIONAL ATTAINMENT BY SEX AND NUTS 2 REGIONS

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### ABSTRACT

Social Network Analysis is a process of investigating the structure of a network. With the contribution of graph theory, it studies the relationships (links) that are established between different units, such as individuals, groups, or organizations (nodes). The nodes and the links developed between them are taken as interdependent rather than as autonomous units. A social network can be compared to a web, which records the relationships or interactions of people. These networks include the social or professional interactions between units through which information and services are exchanged or contacts are recorded on a systematic basis. In this paper we attempt to introduce Social Network Analysis in Economic and Regional Development, i.e. to examine the correlation of a regional education statistic indicator between certain regions. Specifically, we study the share of citizens who have completed higher education for the age group 25-64 years by gender and NUTS 2 regions. We present the visualization of several networks, which are generated based on the degree of correlation of the data, and compute metrics and measures of centrality to infer the interaction, convergence, or divergence of regions by gender. The aim is to determine whether the application of Social Network Analysis could be an alternative research method in the study of Economic and Regional Development.

### KEYWORDS

Social Network Analysis (SNA), Economic and Regional Development, European Regions NUTS 2, Tertiary educational attainment.

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## THE IMPACT OF INTERNET FINANCE ON BANK PROFITABILITY. EVIDENCE FROM THE CHINESE COMMERCIAL BANKS

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### ABSTRACT

This study examines the relationship between internet finance and bank profitability in China. Employing static panel data regression analysis and data on 51 Chinese listed commercial banks during the period 2012-2019, this study explores whether internet finance, measured by P2P lending and third-party payment, affects bank profitability. The results show that internet finance exerts a positive effect on bank profitability for state-owned and joint-stock commercial banks, but adversely affects the profitability of regional commercial banks. This study extends prior research on the impact of internet finance on bank profitability by employing data from different types of commercial banks in China and considering both bank-specific and macroeconomic variables.

### KEYWORDS

Internet finance; bank profitability; commercial banks.

## MEASURING THE ECONOMIC FREEDOM OF STATES

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### ABSTRACT

The aim of this article is to study indicators that measure the economic freedom of states. The concept of economic freedom is closely related to the importance of the institutions that contribute to the orderly functioning of an economy. Economic stability creates the conditions for economic freedom that may contribute to the achievement of prosperity. The main argument for economic freedom focuses on the state's limited role and the existence of appropriate institutions that lead to prosperity. Adam Smith, the father of economics, played a key role in developing the argument that economic freedom contributes to the achievement of well-being (Lawson, 2019). The precondition of economic freedom is the achievement of individual freedom in all aspects of life and not exclusively in the field of study of economics. The indicators examined in this article aim to study the concept of economic freedom and well-being, and are the following: 1) Economic Freedom of the World Index, 2) Index of Economic Freedom, and 3) Legatum Prosperity Index. The aforementioned indicators are analyzed for the study period 2012-2022, and for the four countries under study, i.e. China, Germany, Greece and the US.

### KEYWORDS

Global Political Economy, Economic Freedom, Indexes, Economic Globalization.

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## RECENT EVIDENCE ON ANTI-DUMPING INITIATION FILING DECISION AND MACROECONOMIC FACTORS

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### ABSTRACT

Much of the international literature and research is concerned with proving the use of the Antidumping mechanism as a mean of protectionism. Despite the volume of literature, there exist only few studies that have investigated the influence of macroeconomic factors on the use of the Anti-dumping mechanism. (Feinberg, 1989; Leidy, 1997) for the United States, (Backer & Theuringen, 2001) for the European Union and (Knetter & Prusa, 2003) for other countries sought to explain the macroeconomic determinants of Anti-dumping such as the exchange rate and others. This literature at the time of the survey was in its infancy due to various limitations such as the data availability. The limited use of the mechanism by only a few developed countries, coupled with the lack of a sufficient number of Anti-dumping initiation filing, called into question the reliability of the results. Our intention in this paper is to investigate how the macroeconomic environment of each country as well as the international environment in general influences the decision to submit an Anti-dumping initiation filing. In our research we use quantitative data covering the post WTO period until 2022. These data offer a substantial advantage compared to the recent past because of the significant expansion of the number of countries using the mechanism and the rapid increase of Anti-dumping initiations in general. The increased popularity of the mechanism in recent years removes the limitations of the past and allows us

to statistically investigate the correlation of the mechanism with a series of macroeconomic indicators in order to draw valuable conclusions. We focus on three key macroeconomic factors: the real GDP growth rate, the level of the GDP and the Trade Balance (excluding services). We try to explore their relative importance and how fluctuations in these three macroeconomic indicators affect initiation filing decisions in developed and developing countries. The results of the statistical analysis support that there is a loose negative correlation among the real GDP growth rate and the number of Anti-dumping initiation filing by acting country for both developed and developing countries and also that an increasing deficit in trade balance (excluding services) is positively correlated too. On the other hand the level of GDP seems not to be related with the number of Anti-dumping initiation filing based on the data available. Comparing the results of our research with the existing literature review we can see which of the motives described receive support according to our data analysis. Also, systematic evidences that some macroeconomic factors are related to the use of the Anti-dumping mechanism, reinforces the view than the Anti-dumping mechanism became a tool of protectionism and may incorporated in future research in order to assist the necessary reforms in the existing legal framework.

#### **KEYWORDS**

Anti-dumping, Protectionism, macroeconomic factors.

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## **RESOLVING THE BARRIERS OF BIGDATA TECHNOLOGY IMPLEMENTATION FOR SMES IN A SUSTAINABLE FRAMEWORK USING ECOCANVAS**

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#### **ABSTRACT**

Integrating sustainability into business processes may be one of the most important priorities and challenges in the upcoming years for companies. In the recent years, several economic studies have highlighted out that environmental and social responsibility must be an essential part of the corporate business strategies, which should be starting to build upon well-implemented corporate digitalization strategies. Researchers believe that zero emission cannot be achieved by 2050 without the active implementation of digital technologies. Digitization has now become the driving engine of the green transition, entire industries are starting to be transformed and manage to significantly reduce their carbon footprint with the most modern digital technology solutions in order to save resources and energy, while protecting the environment. Small- and medium sized enterprises (SMEs) working with traditional business models often face implementation challenges, thus often under much greater pressure, they lack qualified experts, relevant knowledge, and resources within the company to efficiently be able to develop and implement digital strategies, to optimize energy consumption, to create appropriate indicators or to collect and analyze data in a sustainable way. Collected secondary data from a BigData related Eurostat SME survey reveals the most common internal and external barrier factors that could restrain SMEs from implementing

digitization and BigData Technology from the aspect of enterprise leaders who already considered BigData implementation within the enterprise in the EU. The top reason was that enterprise leaders do not know and do not really value Big Data analysis. They believe that the implementation costs are too high compared to the potential application benefits. Many respondents highlighted that they lack adequate resources, such as ICT infrastructure, trained human capital with necessary skills, acceptable data sources, while others see the problem in poor data quality, or they have difficulties complying with data protection laws and regulations. In our article, with the help of the ecocanvas sustainable modeling tool, via a holistic approach, we attempted to present a framework – an overview – for company leaders which can support them how to deal with the most common challenges that might appear during the development of their own digitalization strategy, and thus to make their business models more sustainable. Ecocanvas modeling proves to be an excellent tool for this aim, as it offers the opportunity to customize sustainability to companies, industries and business challenges to rethink and develop traditional business models used by companies, thus integrating various social and environmental expectations within them and keeping ahead Sustainable Development Goals (SDGs) defined by the United Nations.

#### KEYWORDS

Sustainability, ecocanvas, bigdata, barriers, SMEs, business.

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## EXPLORING THE LOCAL RESEARCH IMPACT AND THE APPROPRIATE ROLES OF A UNIVERSITY IN A LESS DEVELOPED REGION

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#### ABSTRACT

It is not uncommon to encounter overoptimistic views among policy-makers concerning the extent to which the research outcome of a university can have an impact on the innovation and economic performance of the local economy. Although it is expected that the interaction between universities and their regions will be significantly beneficial for both and will result in highly innovative output, this isn't the case for most of the regions but only for a few exceptions (e.g., Silicon Valey, MIT Corridor, 'Golden Triangle'), which uncritically have been considered by policy-makers around the globe as templates or models that universities must emulate in order to achieve similar successes. However, the context within which these exceptions function is economically, socially, and geographically substantially different from the majority of academia's contexts. Specifically for the less developed regions (LDRs), their typical social and economic characteristics are decisive and can substantially moderate the potential contributions of a university to its region. These regional characteristics of LDRs can cause even the most well-motivated, research-intensive universities to be incapable of passing on their knowledge to the local economy. Or, in other words, the extent to which knowledge

produced in universities diffuses to the surrounding regions can be better explained by the characteristic of the regions and not solely by the characteristics of universities. Attempting to examine the local research impact of a university located within an LDR, this study analyzes the publications produced over time by a young university, the University of Aegean which is located in an LDR in the regions of North and South Aegean in Greece, as well as the extent to which this knowledge has been diffused in the region. In particular, we will present the evolution of the university's research output and will juxtapose it with the impact of this research on the regional economy, manifested either by the collaborations with local organizations in scientific publications (i.e., co-authorship) or by the extent of the citations that the university's publications received from local organizations, as an indicative measure of the knowledge flows from the university to the local economy. Preliminary results based on the analysis of bibliometric data drawn from the Scopus database concerning the university's total research productivity show that although the university's productivity in terms of the number of publications and citations follows a strong upward trend, there is hardly any similar evidence of research impact on the local economy since the research output of the regional organizations is almost unaffected by the university's research, as measured by the citations that the university's publications have received from local organizations. Additionally, rare and random were the cases of co-authorship between the university and the local organizations, corroborating the view that local firms cannot absorb and use the scientific achievements of the university. In similar contexts, we shouldn't expect the university's research to directly affect its local community and economy, but it would be wiser for a university in an LDR to aim to improve the absorptive capacity of the local economy, targeting a level at which local organizations can absorb, assimilate, and use the knowledge produced by the university. Consequently, as a first step, policies regarding the impact of a university's research output on the local economy should focus more on how to improve local firms' absorptive capacity and less on policies which expect that the presence of a university by itself can magically transform a region in a technology or scientific global hub. This could be achieved by placing emphasis on economic activities and projects of lower scientific intensity in which local organizations can participate or by which they can be directly affected (e.g., organizing and coordinating collaborative developmental projects, providing consulting services for entrepreneurship and innovation, contributing to local infrastructure, providing technical and other professional services, organizing conferences related to the local economy); or it could be achieved by levelling up the intellectual level of the local population through non-economic activities (e.g., educational courses open to the community, cultural activities, environmental and social campaigns), shaping stronger foundations for the future social and economic development. Based on the above and taking a transformative innovation policy perspective, we can argue that these types of cases could cause policy-makers to rethink the priority of the universities' roles depending on their regional contexts, directing them to contribute more to the improvement of regional absorptive capacity and to the treatment of environmental and societal local challenges and less to the development of high-tech industrial clusters in geographies characterized as less developed regions.

**KEYWORDS**

Research impact, research productivity, regional innovation, less developed regions, universities' roles.

## **RUSSIAN-UKRAINIAN CRISIS: THE END OR A “NEW” REALITY OF GLOBALIZATION AND ITS IMPACTS ON GREEK FOREIGN TRADE**

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### **ABSTRACT**

Based on international articles, it is found that there is a strong concern about the trend of de-globalization that seems to prevail at a global level. Many researchers internationally are asking: "whether we are living the end of globalization or are we moving into a new reality?", especially after Russia's invasion in Ukraine and the imposition of administrative and economic sanctions by the European Union against Moscow, an evolution that comes in addition to an existing sequence of tensions and crises (economic crisis 2008, Covid-19 pandemic, energy crisis, supply chain crisis) in this direction. The article explores the impact of the recent geopolitical crisis between Russia and Ukraine on Greece's foreign trade. Specifically, is being considered the progress of Greece's bilateral relations with the two countries and in particular are analyzed: the composition of Greece's foreign trade, the sectoral composition of bilateral trade, the terms of foreign trade of Greece of those countries for the period 2017-2022. Methodologically, based on previous research efforts, the intensity of intra-industry trade is investigated according to the Grubel-Lloyd index (GL index) and the Revealed Comparative Advantage (RCA) index. The results of the research approach indicate for Greece's foreign trade that over time imports are more than exports, which implies a trade deficit over time. It also appears that the degree of sensitivity of imports is greater than the degree of sensitivity of exports. Regarding the sectoral (SITC1) structure of foreign trade, the same structure is found both in imports and exports, while according to the index (GL Index) the foreign trade of Greece at a global level is basically intra-sectoral. Moreover, the results indicate that Greece has a higher specific gravity of exports (than that of imports) in sectors of low value added and labor intensity, while on the contrary it has a lower specific weight (of exports compared to imports) in high value-added and capital-intensive sectors. Finally, as far as bilateral relations with Russia are concerned, although there is a high dependence on Russian exports, there are no strong consequences of the tensions in Russian- Ukrainian area on the trade front, making Greece one of the least at-risk countries.

### **KEYWORDS**

Globalization, Foreign Trade, Crises, Russia-Ukraine.

## WORKING CAPITAL MANAGEMENT OF ENERGY COMPANIES AS A FACTOR FOR THEIR SUSTAINABLE DEVELOPMENT

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### ABSTRACT

Sustainable Development was initiated in Europe in the second half of the 1980s. More specifically, the notion of the Sustainable Development was entered the European Union regional and environmental policy, tightly connected with its cohesion policy, during this period and became firmly established in the international developmental disclosure with 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). Regarding the energy sector in the European Union there have been taken different measures to provide energy for the future generations. The target for 2030 related to the share of renewable energy is 30%, but to achieve this objective, it is needed to investigate the efficiency of the energy companies in order to fulfill the Sustainable Energy Development (SED) goal 7. Therefore, the efficiency of the energy companies is of major importance and one aspect of it, that top managers have to consider in order to achieve the above goal, is the efficient working capital management of their company. Furthermore, the major objective in Finance is to maximize the wealth of the companies' shareholders and top managers have to consider the efficiency of working capital management in order to achieve the above goal. Efficient working capital can protect the firm from financial distress, can increase its sustainability, can offer a competitive advantage and can be a significant factor of the company's growth. In the present study, our objective is to investigate the impact of working capital management on firm's performance using the return on assets (ROA) as a measure of firms' performance and the three liquidity indicators, the current and the quick ratio (static measures), the cash conversion cycle (dynamic measure) and its components as measures of working capital management. This study focuses on the companies of the energy sector in Europe and there are three objectives: 1) to investigate which of the three liquidity indicators is more appropriate for the measurement of a company's working capital, the static ones (the current and the quick ratios) or the dynamic one (the cash conversion cycle) or both as well as some other relevant variables such as the working capital turnover, inventory turnover, days of supply, 2) to examine the relationship between the working capital as expressed by the above variables with the company's performance (in terms of profitability) measured by the return on assets (ROA) and the net profit margin and also the indebtedness (leverage) of the firm in order to investigate the company's sustainability and 3) to examine how the individual components of the cash conversion cycle affect the firm's performance and what factors can influence them. The data regarding our sample and variables is obtained from the Thomson EIKON database for the period 2000 to 2021. For the examination of our testable hypotheses we use correlation and panel data regression analysis, as well as comparison tests. Our initial sample was consisted of 313 energy companies listed in the European stock markets. However, all the cases that had missing data were deleted and the final sample contained 283 companies. This is the importance, the contribution and the motivation of this paper. The present research is addressed to the academicians because it enriches the pertinent literature by investigating this topic in the energy sector for a sample of European companies. It is addressed also to

corporate managers and will be helpful for the strategies they will have to plan and follow to support the sustainability and growth of their companies because they will have the opportunity to see how they can improve the overall position and performance of their companies by better working capital management. Finally, this study will also be useful to investors before selecting to invest in energy companies since it will give them information regarding the liquidity and the profitability of their potential investments.

**KEYWORDS**

Sustainability, working capital, ROA.

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## THE IMPACT OF NATIONAL CULTURE TO INTERNATIONAL COMPETITIVENESS. A MULTI-COUNTRY ANALYSIS

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**ABSTRACT**

In the current context of globalization and internationalization, research on related culture is of current concern and of great value. The importance of culture is increasingly addressed in managerial and specialist literature, as it contributes to the performance of the progress of economic and social reforms. The complexity of this concept has been discussed over time to define it as clearly and appropriately as possible. Culture reflects the image of a nation, each country and region differ culturally, due to the time in which it was established and developed, history, myths, but also other endogenous and exogenous factors. From this perspective, selective quantitative research is needed regarding the role of national culture on social well-being, or in other words on international competitiveness. The purpose of the research is to determine/demonstrate the existence of cultural differences that influence international competitiveness. Also, the research aims to identify the cultural dimensions through the 6-D method, proposed by Geert Hofstede, of the specific values of nations and determine their impact on competitiveness (the method offered by the IMD (International Institute for Management Development)). This study uses a nation sample of 56 countries and examines the relationship between national culture and competitiveness. We measure the national culture with the 6 cultural dimensions through the 6-D method, proposed by Geert Hofstede (distance from power, masculinity, individualism, uncertainty, long-term and indulgent orientation), of the specific values of nations and determining their impact on competitiveness (the method) provided by IMD (International Institute for Management Development). This paper adds to our understanding by finding that cultural values lead to increased social well-being. The identification of cultural influences and dimensions through the lens of increasing long-term international competitiveness, both in theoretical and practical approach, will have a sustainable impact, not only in the field of research, but also in applicability to the business and management environment.

**KEYWORDS**

National culture, international competitiveness, Hofstede model, International Institute for Management Development (IMD).



## AGRICULTURAL AND BUSINESS DIGITALIZATION DEGREE IN ACHIEVING SUSTAINABLE DEVELOPMENT GOALS

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### ABSTRACT

Agriculture 4.0 trend is moving manufacturing processes away from human resources and towards the world of machines. This means that smart technologies have become almost standard in production tools, cloud services have made it possible to process large amounts of data, and the valuable information available allows production processes to be optimized. The next step will be Agriculture 5.0, the era of "Collaborative Systems", where robotics and artificial intelligence will be integrated. Today, data-driven business decisions have become a prerequisite for competitiveness, as new technology can extract data, visualize relationships and use AI-based algorithms to efficiently support production and business operations. The digital transition in the agri-food sector is slow, the adoption of new technologies faces several challenges. Involving experts with a complex knowledge on agro-food sector and digital technologies can help to alleviate this disadvantage as they can pinpoint those problems that can be solved, supported or replaced using digitalization and they can also choose the appropriate digital tool. That is why important the education mainly in the field of business and agriculture. Agri-digitalisation could represent the greatest opportunity for the agricultural sector in the next decade, increasing the efficiency, profitability and competitiveness of production, and is expected to reduce environmental pressures and production risks, thus contributing to achieve Sustainable Development Goals of the European Union as well. On the one hand, this paper presents the role of digital skills in the field of business and agriculture with an outlook to some trends regarding the digital skills of the employees based on Eurostat data. On the other hand, the recently introduced "Agricultural and business digitization BSc course" will be presented. This practice-oriented training is a fusion of business, agriculture and Information and Communication Technologies and in this way it meets the challenges of the times. We will discuss the knowledge acquired during the training with the knowledge elements that help to achieve the sustainability goals. Our further aim is to validate the importance of those types of higher education courses which combine professional knowledge with business skills and digital competencies.

### KEYWORDS

Collaborative Systems, business decisions, digital transition, Agri-digitalisation, Sustainable Development Goals.

## ITALY-ALBANIA COOPERATION TO COVER NURSES' SHORTAGE: INSIGHTS FROM A HEALTHCARE COOPERATIVE' RECRUITMENT PROCESS

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### ABSTRACT

In Italy the number of nurses per 1000 population (6.2) is lower when compared to the average ratio of other European Countries (8.8) (OECD, 2020). The shortage of nurses has been recognised as a key problem of the industrialised country (OECD, 2008; Kingma, 2007) and continues to impact the national healthcare system's services delivery. Two trends have been discussed as impacting the number of nurses in Italy: the first concerns the ordinary turnover related to the high number of nurses who will retire in the next five years (-29.000); the second refers to the increase in the demand for nursing to enhance the primary care services, following the reforms stemming from the Recovery Plan (+ 21.000) (Ministry of Economy and Finance, 2020). Given the nursing staff shortage, over time, countries have introduced the cooperation agreements with other countries as a means to reduce the impact of the phenomenon (Plotnikova, 2012; Cabanda, 2020). This practice is well rooted among many countries, both USA and Central and Northern Europe (Buchan, 2002; Brush et al, 2004; Khadria, 2007; Reiff et al., 2020). Nevertheless, administrative burdens linked to the recruiting has been deemed to hamper the recruitment (Reiff et al., 2020). In addition, hiring internationally educated nurses may entail issues related to healthcare services' provision (Li et al., 2014). For instance, the level of qualification and the host country's language proficiency of foreign-educated nurses can influence the quality of patient care (Habermann and Stagge, 2010; Schilgen et al., 2019). Cultural factors can also affect the satisfaction of patients' needs, if the nurses are not trained to deal with the professional values and principles of the context in which they will work (Morin and Talbot, 2021). Further, internationally non-homogeneous nurses' qualification profiles and professional expertise can bring conflicts in multicultural teams when carrying out operational practices (Reiff et al., 2020). While studies on problems experienced by internationally educated nurses saw a consolidated expansion over time, scant research aimed at deepening potential actions to face such issues (and the related outcomes) has been produced (Ghazal et al., 2019). Thus, this paper aims at identifying the weaknesses and potential actions to improve the internationally educated nurses' recruitment process in the Italian context. To this regard, an exploratory case study was conducted (Yin, 2003) to investigate the recruitment process' weaknesses experienced by an Italian healthcare cooperative based on an agreement to recruit Albanian nurses. Potential actions implemented to solve the limitations detected by the recruiters were also examined. Data were collected through semi-structured interviews, and analysis based on the content analysis method. The paper allows to identify the implications related to the international nurses recruitment in a Mediterranean country such as Italy as well as at exploring the actions that the recruiters have taken or urge to take in order to implement an effective recruiting process. The results will be discussed considering the stream of literature available on international nurses' recruitment and will inform a larger study of the nurses recruiting process in the Italian context.

### KEYWORDS

Nurses' shortage, cooperation, recruitment, patients' needs, multicultural teams, professional expertise.

## HUMAN-CENTERED REBOOT OF GREEN URBAN ECOSYSTEM MANAGEMENT IN THE CONTEXT OF DIGITALIZATION

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### ABSTRACT

Modern management of the "green" urban ecosystem under the influence of digitalization trends has a growing need for a balanced development of various industries/sectors: economic, socio-environmental, innovative and governmental structures, IT industry based on the reproduction of qualitative human resources. This is due to the dominant role of human resource management (HRM) in the reproduction process of innovative type. The purpose of the report is to identify the key components of a human capital strategy for achieving the UN Sustainable Development Goals (ESG benchmarks). The conceptual dominant of the research methodology is the statement about the possibility to consider human capital as a multi-parameter socio-resource component of the vector of "green" development of the urban ecosystem. The application of this methodology allowed to make a qualitative-quantitative parameterization of the benefits and obstacles associated with the implementation at all levels of green urban management of human-oriented principles of sustainable management. The result of the study are methodologically substantiated and empirically verified components of the strategy of reproduction of quality human resources in the management system of metropolitan ecosystem's innovation-oriented "green" development. It is proved that in the conditions of digitalization the algorithm of implementation of green HRM should be systematic, which initiates the increase of sustainability of resource using, reduction (elimination) of environmental damages, updating technologies, contributing to the effectiveness of all components of human resource management. The requirements for the ESG toolkit for assessing strategic decisions at different levels of green HRM are formulated, as well as recommendations for actors to use the toolkit to analyze the causes of the slowdown in the implementation of green HRM and to develop adequate policy measures aimed at sustainable human capital development are created.

### KEYWORDS

Management, Green Urban Ecosystem, Human-centered Reboot, Digitalization

## DECIPHERING THE ECONOMIC GROWTH IN THE BALKANS THROUGH THE LENS OF HUMAN CAPITAL

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### ABSTRACT

The issue of economic growth and increased prosperity levels remains a matter of concern for the Balkan countries. More precisely, the Western Balkan countries are still considered economies in transition. However, some Balkan countries are found to enhance the potentials for economic convergence toward developed countries better than others. Therefore, the purpose of the paper is to investigate the role of the main factors, and specifically the significance and importance of human capital, that have influenced the economic development of the Western Balkans. This review will be analysed as follows: First, the authors will explore the economic development of the Balkan countries by analysing statistics on main macroeconomic indicators such as GDP growth, Unemployment rate, and human capital indicators. Then, a literature review on human capital theories and approaches that emerged during the 19th and 20th centuries will be conducted. In the third and final section, the authors will specify the human capital approach that every Balkan country supports, and similarities and differences will be pinpointed and reasoned. The study may, therefore, provide an additional explanation, for the differences in per-capita output across Balkan countries, by investigating the effect of human capital formation on the emergence of economic divergence and overtaking in economic performance. Another parallel goal of the study is to indicate which of the established approaches in the literature can best explain the relative per-capita growth of these countries in the context of the historical evolution of human capital.

### KEYWORDS

Human capital, economic growth, economic convergence.

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## THE CALENDAR ANOMALY OF THE TURN OF THE MONTH EFFECT IN CAPITAL MARKETS IN 21ST CENTURY

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### ABSTRACT

In this paper we are aiming at examining: firstly whether the calendar anomaly of the turn of the month effect occurs in the 21st century, in 4 stock market indices, secondly, if there is an aggravation of the phenomenon in periods of financial crises and recession of the economy

and finally, if there is a difference in the intensity of this phenomenon between developed and developing or emerging economies. We are investigating the turn of the month effect. According to this, in the period that includes the last day or days of each month and the first days of the next one, higher returns appear comparing to the average returns in the rest of the month. Our empirical research is basing on the study of four well known stock market indices, the FTSE ALL of the Athens Stock Exchange, the Standard and Poor 500 index of Nasdaq and NYSE, the IBRX of Brazil and the Nikkei 225 of Japan for the period 2005-2016. We investigate on one hand whether the calendar phenomenon of the change of the month is detected and on the other hand whether in periods of economic crises and recession their intensity increases in relation to periods of economic normality and growth. The empirical research part is divided into two parts, in the first the descriptive statistics are investigated, while in the second an econometric analysis is carried out using the GARCH method. From the conducted analysis it is figured out that the phenomenon of the change of the month for the selected period 2005-2016 is evident in the stock market indices of developing economies, such as Brazil and Greece. However, we are noticing some differentiations between these 2 case studies, since the examining phenomenon of the correlation of the change of the month with the phases of the economic cycle of the economy, is observed only in the Greek stock market, as it is more intense in the periods of the crisis and the prolonged recession of the Greek economy that followed. Whereas. in the case of Brazil, the phenomenon of the change of the month is demonstrated more strongly in the two sub-periods of economic growth than in the sub-periods of recession. Regarding the developed countries, it seems that the specific calendar anomaly has been eliminated or even reversed in some cases, since it could not be verified for the indices concerning the capital market of the USA and Japan during the period of the study.

#### KEYWORDS

Turn of the month, financial crises, developed and developing or emerging economies, stock market, GARCH method.

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## CLUSTERING OF GREEK YOGURT FIRMS

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#### ABSTRACT

The exports of dairy products and mainly Greek yogurt to Greece, within a turbulent economic environment, comprises an essential lever for economic growth and empowerment of Greek firms. The study aims to cluster Greek yogurt production firms according to the antecedents of their internationalization motives. Data were collected through a survey (structured questionnaire) in a sample of 137 yogurt firms, of which 21 have export activity and an overall response rate of 75.91%. The clustering of firms was achieved via the hierarchical method of cluster analysis performed with the Ward method to minimize the differences within the

clusters. An applicable distance measure was the square of Euclidean distance. Regarding selecting the number of clusters to be created, the choice was made on the grounds of the number of the sample firms, within a range of two to five clusters. The results show that Greek yogurt firms are divided into two distinct clusters namely the "large-sized exporting firms with experience in the field" and "small-sized non-exporting firms of the local market".

**KEYWORDS**

Cluster analysis, competitive advantage, internationalization, Greek yogurt.

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**MAPPING THE STRUCTURE OF HOUSEHOLD FOOD WASTE RESEARCH:  
AN INTEGRATIVE REVIEW**

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**ABSTRACT**

A historical review of food consumption, the transition from the era of scarcity to abundance in Western societies highlights a contemporary environmental, social and ethical issue of food waste. Furthermore, increased demands for solutions to the issues of climate change, food security, and economic development are making food waste appear at the top of discussions at the level of the European Union and the United Nations and, therefore, on the agenda of governments around the world. We analyzed 1,743 papers from the Scopus database on food waste household management with the help of the VOS viewer software tool. The results of the keyword co-occurrence analysis were used to explore the thematic units and interests of the scientific community regarding household food waste. Eleven representative groups were found clustered around main keywords: food waste, household waste, waste management, recycling, household food waste, household, municipal solid waste, household solid waste, solid waste management, households, and waste.

**KEYWORDS**

Food waste, food loss, management, co-occurrence analysis, network analysis.

## FACTORS INFLUENCING RECYCLING HOUSEHOLD WASTE

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### ABSTRACT

Solid waste management continues to be a major challenge for modern societies in urban areas around the world, but in particular, it is emerging as a topic that is high on the agenda of state institutions, especially in rapidly growing cities and towns in the developing world. Recycling is perhaps the most positively perceived and feasible of all waste management practices. The researchers recruited a sample of N=274 households residing in Greece permanently. The questionnaire was based on the Theory of Planned Behavior with the inclusion of elements of altruism, to highlight the motivations that lead from position to attitude. The results showed that the perceived usefulness, value of recycling, rewarding incentives, and awareness of the consequences for the environment have a positive effect on the attitude of households. Factors examined are the perceived need to protect the environment, community advocacy, and the adoption of waste reduction practices. The results can be used in the formulation of strategies by the local government and public bodies in connection with the National Waste Management Plan.

### KEYWORDS

Recycling; theory of planned behavior; municipal solid waste; household recycling.

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## NEW BIODIESEL PRODUCTION FROM DIESEL AND VEGETABLES SOURCES BIODIESEL BY EVOLUTIONARY COMPUTATION APPLICATION

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### ABSTRACT

The consumption of fossil fuels in diesel mixtures and their emissions, converge the global communities to the searching of alternative, environmentally friendly fuels. In addition, Biodiesel has become more attractive in the last decades, because it is produced from environmentally friendly and renewable ingredient sources. The present paper proposes a new approach for

new Biodiesel production based on Evolutionary Computation. An adjusted genetic algorithm, which initially investigates the ingredients' percentages in the fuel mixtures to optimally create their combinations as Biodiesel fuel, is improved. The main ingredients of the proposed biodiesel are diesel and biodiesel (100% vegetables sources). The evaluation of the new Biodiesel was implemented from a fitness function, which estimates the fuel's density and cost. Except from the cost as an evaluation criterion, density as a physicochemical characteristic of fuels, determines the suitability on a new fuel for general use and sale. Detailed experiments produced highly accurate Biodiesel mixtures, by proposing an optimal fuel solution per set. Two experimental sets are used for the approach assessment. The first set provided an "Emphasis on Cost" criterion, when the second one is based on density ("Emphasis on Density"). As a result, the decision maker can select, by any case, the most important fuel characteristic. The new Biodiesel fuels cost less than the diesel cost (2.0000 €/l), provide competitive fuel prices and their consumption reduces the pollutant emissions by having lower sulfur content. The targeted results from the simulation process, can be applied in Laboratory for the new Biodiesel production, saving time and cost than the randomized laboratory experiments.

#### **KEYWORDS**

Biodiesel Production, Optimal Fuel Properties, Evolutionary Computation, Genetic Algorithm.

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## **GENERATION Y, GENERATION Z AND THEIR PERCEPTION OF WORK LIFE**

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#### **ABSTRACT**

Now, in most organizations, employees from at least three different generations - Baby Boomers (1945-1965), Generation X (1966-1979), and Generation Y or Millennials (1980-1995)-work together. In addition to these three generations, the Z generation has also started to take part in business life. Therefore, academics believe that organizations are faced with problems they have never faced before, as employees of four different generations are active in the labour market these days. The perception and belief that the attitudes and values of generations differs, are kept on the agenda especially by a certain group of researchers, educators, and management consultants. According to this belief, which has become quite common, the basic values, attitudes towards work and organization of each generation in working life differ. These differences cause significant conflicts and difficulties in the working environment. While Generation Y consists of people born between 1980-1995, Generation Z refers to people born in 2000 and later. However, the generational classification in the publications is largely inspired by the North American (USA) business and social context. For this reason, the validity of this classification in other countries and contexts is a subject worth questioning and researching. According to many studies, the capacity of the Z generation to access information is much higher thanks to technology. Generation Z, who started to receive education at an early age, shows faster mental development. Compared to the Y generation, their individualism is stronger. Gen Z, who are literally the children of the technology age, are characterized as result-oriented, unsatisfied, undecided and born consumers. It is stated that they prefer to live alone and care about justice and peace climate. Especially the advances in technology have



caused the separation of their individual characteristics from other generations. It is estimated that this generation will be the most educated generation throughout history. Based on these assumptions, in this article, we tried to find for both Generation Y and Generation Z, what "working" means, why they work and what they expect from work life, work place, leaders and leadership. Because that for generation Y and Z perception of work and expectations from work differs, we wanted to compare both generations. These two generations will constitute the majority of employees in organizations in the near future. And we also wanted to clarify whether all of the assumptions about Generation Y and Generation Z are valid for our culture as well. For these purposes, five people from generation Y and five people from generation Z were interviewed. Semi-structured interviews were carried out. In these interviews, individuals were asked questions about their perceptions of business life, expectations from business life and leaders, and leadership needs. The results showed that while some of the assumptions about generations are valid, some of them are not found in our culture. In these findings, it is thought that the pandemic has an effect as well as culture.

#### **KEYWORDS**

Generation Y, Generation Z, Work life, Leadership, Perception of work life, Leadership need.

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## **A SECTORAL ANALYSIS IN THE GREEK REGION: THE CASE OF THE AEGEAN ARCHIPELAGO**

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#### **ABSTRACT**

Sectoral analysis is an important tool for understanding and describing the entrepreneurial environment in each economy. Extant research has focused on examining the sectoral segmentation of economies and the affiliation of enterprises within it. Specifically, there are several studies at national level in the Balkan economies, which focus on the analysis of individual sectors, such as energy, tourism, and others. However, the sectoral environment in the Aegean Archipelago as part of the Greek economy is almost under investigated. This study aims to fill this gap by implementing a sectoral analysis for these enterprises, in the majority of the islands in the Aegean Sea apart from the island of Crete. The data for the population of 64456 enterprises in this region collected by the Chambers of Commerce of the Aegean islands, as they are the authoritative source of information for the enterprises. The results of this research provide useful information regarding the sectoral analysis of the economic environment of the Aegean, as well as demographic and business data and characteristics for all these enterprises.

#### **KEYWORDS**

Sectoral analysis, Aegean Archipelago, Greek economy.

## **CORPORATE GOVERNANCE AND ESG: A REVIEW OF THEORETICAL APPROACHES**

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### **ABSTRACT**

Environmental, social, and governance (ESG) issues have become more crucial to businesses and investors in recent years! Incorporating ESG, into corporate governance processes has become an important factor, in determining a company's long-term profitability, and sustainability. The purpose of this research paper is to offer a detailed assessment, of current theoretical approaches to ESG, and corporate governance. The study comprises a detailed examination of academic sources, data synthesis, and a comparison of several theoretical frameworks. According to our study results, there are many theoretical approaches to ESG and corporate governance, such as stakeholder theory, agency theory, and stewardship theory. The findings of our paper emphasize the limitations of existing research, and the need for more research on the relationship between ESG and corporate governance. The study's conclusion sheds light on the significance of integrating ESG into corporate governance and the possible benefits for enterprises and stakeholders.

### **KEYWORDS**

Corporate governance, ESG, Performance.

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## **FACETS OF THE RESEARCH PRODUCTION OF A PERIPHERAL UNIVERSITY: THE CASE OF THE UNIVERSITY OF THE AEGEAN**

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### **ABSTRACT**

This paper aims to measure the research production of a peripheral university, namely the University of the Aegean. To do so we will discuss both the input aspect (research producers) and the output aspect (research production). The first part of the paper focuses on the research producers, i.e., the faculty of the university. We will discuss their number, their distribution through different academic ranks, and their demographic characteristics (gender, academic age, country and university in which they obtained their first degree and their Ph.D.). For all those aspects we will analyze their evolution through time both at the university and the departmental level. Some

of the questions we will try to answer are ones about faculty aging, academic inbreeding, hiring and promotion, and faculty moving to other universities. The second part of the paper focuses on the research production, i.e., the research publications of the university. We will discuss the number of publications (both in whole and in fractional counting), their distribution across different types (journal paper, conference proceedings, book chapter, book) and different subjects, and the quality (according to scientometric indicators) of the journals, conferences and book series in which they appeared. Again, those aspects will be examined over time both at the university and the departmental level. In the third and final part of the paper we will discuss connections between the demographic characteristics of the producers and their research output.

#### KEYWORDS

Bibliometrics, Scientometrics, Higher Education

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## A COMPARISON ANALYSIS ON THE EFFECT OF DIGITALIZATION ON FIRM SURVIVAL DURING COVID-19 PANDEMIC.

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#### ABSTRACT

Since the spread of COVID virus firms have struggled with sales and survival. When the pandemic reached Europe, the governments needed to take measures to prevent the further spread of the virus, such as quarantine and lockdown measures. These measures also created an economic crisis as they created negative demand and supply shocks, which put business in difficulty. Some firms were hit so hard by the crisis that they decided to close down their activity permanently. The most vulnerable were small and medium enterprises (SMEs) because they have less access to finance and lower digital absorptive capacity compared to large firms. Large, exporting firms have more access to finance, they have more resources and capabilities. Studies have shown that SMEs have difficulties to withstand the crisis due to lack of financial resources. Therefore, the pandemic was a challenge for businesses around the world but at the same time it changed the way firms and industries interact and do business by shifting them very fast in adopting digital technologies in their way of doing business. Many companies around the world tried to adapt to the new situation by focusing on online sales and remote working. This study makes a comparison analysis on the impact of digitalization in firm survival during COVID pandemic between the Central and Eastern European countries (CEE) and the Western Balkan countries (WBC). In addition, we also make a comparison between SMEs and large firms. This study uses the latest survey data of Business Environment and Enterprise Performance Survey of World Bank during the COVID-19 pandemic. The data used are cross-sectional data and the models used are a probit and tobit model by which we measure the impact of digitalization in firm survival and firm performance. The result show that the higher the digitalization the higher are the chances of survival and firm performance. The results also indicate that firms from CEE countries have higher degree of digitalization compared to WBC. In addition, large firms have higher degree of digitalization compared to SMEs.

#### KEYWORDS

CEE countries, WBC countries, digitalization, COVID-19, SMEs, firm survival.

## COMPARATIVE ANALYSIS OF POLICY IMPACT ASSESSMENT MODELS IN A REGIONAL ECONOMY

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### ABSTRACT

Within a financial system, it is known that no sector operates individually, but instead, there are direct relationships and interactions, and amendments in the functioning of one sector affect other productive sectors of the economy. The primary purpose of applied economic analysis is to assist in developing relevant policies. It is, therefore, imperative, in the process of selecting a particular methodological framework, to consider not only the theoretical and practical reasons for this choice but also the relevance of the results that can be achieved, as well as the transparency and ease with which they are materialized. The objective of the current paper is to compare the policy impact assessment models and, more specifically, to provide an overview and compare three suitable methods for modelling the economic impacts, namely the Input/Output (I/O), the Computable General Equilibrium (CGE) and the Social Accounting Matrix (SAM) models. Nevertheless, we do not attempt to deliver an exhaustive overview of all aspects related to the differences and similarities between these models but to overview the different approaches to illustrate the differences that may arise in the results, which may provide guidance lines. A critical evaluation and comparison of these models could potentially offer insight and value to the future use of impact models.

### KEYWORDS

Comparative analysis, Impact assessment, Models, Input-Output, CGE, SAM.

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## INTRODUCING SUSTAINABILITY MANAGEMENT IN SMES - RESOLVING A CONFLICT BETWEEN LARGE AND SMALL COMPANIES

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### ABSTRACT

A number of regulatory measures are currently underway in Europe to ensure that the Paris climate goals of the IPCC are realized by the European economy. The framework for this programme is defined by the European Green Deal. Normally, the resulting legislative measures are published by the EU Commission as so called "Directives". What is new is that, in order to accelerate the implementation, the EU Commission has been authorized to issue direct regulations for the realization of Green Deal criteria. The EU Commission's regulatory directives were prepared by

an outsourced institution, EFRAG, which serves as EC's think tank for legislative measures. So far, virtually all of the requirements invented by EFRAG have been designed and made binding for the "big" economy of companies with more than 500 employees or 20 million annual turnovers, or if these companies are listed on the stock exchange, such as the CSRD Directive in its updated version with entry into force in spring 2022. The experience in the resulting practice with respect to the supply chain is that SMEs have had the criteria that apply to large companies imposed on them by their large client companies as requirements for meeting sustainability requirements. An R&D project funded in Austria by the National Research Promotion Agency and completed in 2022 entitled "Sustainable Business Enterprise Game" (German acronym NaWiS) has set itself the goal of motivating and qualifying SMEs to introduce a sustainability management system suitable for them, both to build up their own position vis-à-vis large companies and to prepare themselves in good time for legal requirements to meet legal sustainability requirements. Sustainability management is a vital aspect of modern business practices, especially in the wake of increasing environmental concerns. However, the implementation of sustainability practices varies greatly between large and small companies. Small and medium-sized enterprises (SMEs) face different challenges compared to large corporations in implementing sustainability measures. In conclusion, SMEs face significant challenges in implementing sustainability practices, and a conflict arises between large and small companies. However, this conflict can be resolved through government support, collaboration, and industry associations. Implementing sustainability measures is crucial for the long-term success of both large and small companies, and everyone must work together to achieve this common goal. This paper is not so much a project report as it discusses the issue of modelling SME sustainability management that is compatible with climate requirements and demonstrates proposed solutions and aims to discuss the challenges faced by SMEs in introducing sustainability management and how to resolve the conflict between large and small companies.

#### **KEYWORDS**

sustainable development and strategies, strategy implementation, competitive advantage, Triple bottom-line (TBL).

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## **PROBABILISTIC PERT/CPM-BASED SPREADSHEET MODELING FOR FINANCIAL PLANNING OF SUSTAINABLE INFRASTRUCTURE**

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#### **ABSTRACT**

The critical role of quality infrastructure development in the achievement of Sustainable Development Goals (SDG), as set out in the United Nations Agenda 2030, is nowadays widely accepted. Sustainable infrastructure assists both governments and entrepreneurs worldwide in the provision of basic services, contributing not solely to better individual livelihoods but also to broader economic growth. Whenever public-sector budgeting is insufficient to finance infrastructure projects, the global capital markets are often involved. However, the highly risky environment for infrastructure investments, from complex permitting processes and physical production delays to the large amount of time that completed fixed assets demand

before generating the required rates of return, may deter private investors. Furthermore, the construction industry is notorious for high levels of liquidations mainly because of the lack of sufficient funding at the right time to support site operations. Consequently, the built environment at large is seriously concerned about the effectiveness of existing conventional (deterministic) financial management tools on its capital-intensive development projects, especially under current volatile and uncertain economic situation with increasingly rising inflation rates. As an endemic constituent of financial planning, project-level cash-flow forecasting has long been broadly recognized as crucial for the survival of any contracting firm by providing a valuable early-warning signal management system to predict possible insolvency so that preventative actions can be timely decided. In this research, a probabilistic net cash-flow (NCF) forecasting spreadsheet model is introduced based on PERT/CPM scheduling techniques and Monte Carlo method. The practicality of the new financial planning tool lies on its spreadsheet development which makes the model transparent and practical. Its simple structuring also facilitates the use of stochastic simulation to answer 'what-if' questions aiming to explore the most significant variables impacting project NCF profile. The proposed methodology is implemented to an actual typical infrastructure project, i.e., a new reinforced-concrete bridge of a regional road. The study is anticipated to benefit both professionals and academics towards more successful financial planning of sustainable infrastructure.

#### **KEYWORDS**

Sustainability, Infrastructure, Financial Planning, PERT/CPM, Simulation.

## **ASPECTS AND PROSPECTS OF THE WESTERN BALKANS' INTEGRATION IN THE EUROPEAN UNION: A POLITICAL, ECONOMICAL AND ANTHROPOLOGICAL APPROACH**

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#### **ABSTRACT**

Western Balkans' integration in the EU is a very complex issue to deal with and a question with many aspects and views. Discussing about the integration of western Balkans in the EU a series of questions arise. In this challenging situation in a constantly changing historical and social context an interdisciplinary answer is required. In the field of politics the issues that arise are that of low democracy index; unfair elections and corruption are only some of the questions that the EU would have to deal with. In the field of transitional economics the historical context of the Yugoslavian past and the war of '90s decade has created a grave problem of sustainability; development and growth in these countries. How will the EU bridge the gap and deal with some common in these countries' problems such as poverty; inequity; and underdevelopment? Is the EU funding enough to solve the problem? In the ex-Yugoslavian (western Balkans) countries due to the establishment of independent states have also risen pending geopolitical and territorial issues such as the Kosovo dispute widely known as an active frozen conflict. Science of anthropology and its subfield of anthropology of conflict can suggest a sustainable plan of

communities coexistence and abolishment of fundamentalism. All the above mentioned vital for the future of European perspective of western Balkans issues will be thoroughly elaborated on this announcement.

**KEYWORDS**

Growth, sustainability, nationalism, communities coexistence.

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**DOING WELL BY DOING GOOD: AN OPTION PRICING APPROACH**

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**ABSTRACT**

Pay-for-success contracts have pioneered the innovative financial and social terrain of impact investments. A novel blend of government, private-sector and civil-society technologies and mandates, pay-for-success contracts exhibit option-like payoffs. Implementing standard option-pricing arguments, I show that pay-for-success contracts (or social impact bonds or pay-for performance contracts) are structured like capped put options or bear spreads with put options. Policy-pricing results are based on the Black-Scholes formula and sensitivities vis-à-vis contract specifications are reflected in the valuation formula and help reach investment and social policy decisions.

**KEYWORDS**

Pay-for-success contracts; social impact bonds; pay-for-performance contracts; social finance; option pricing.

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**DO INFLATION EXPECTATIONS CHANGE DURING THE WAR?  
A COMPARISON OF UKRAINE AND NEIGHBOURING ECONOMIES**

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**ABSTRACT**

This paper investigates the inflation expectations of households and professionals in Ukraine, and economies located in close vicinities like Poland, Czechia, Romania and Hungary. Inflation expectations play a pivotal role in monetary policy conduct. Central banks, including the inflation targeting central banks from our sample, monitor them closely and aim to steer expectations among economic agents. The study focuses on how expectations' proprieties change in the post-invasion period. We test the forecast errors, expectations alignment to central banks' targets and disagreement between consumer and professional forecasts over time. The research period of the study covers 2017-Q12023. The beginning of the research period serves to distinguish the pattern of expectation formation that could be considered a standard one. Exceptional circumstances, like the military invasion of Ukraine, must affect expectations domestically. We discuss the invaded and neighbouring economies to ensure

a comparative perspective. All studied countries experienced increased inflation rates, post-pandemic recovery and high energy prices. The war affects them directly (Ukraine) or indirectly (remaining countries from our sample). We are aware that we cannot fully disentangle the war effect as the period of 2022 and early 2023 abound in extraordinary – from the monetary policy point of view – situations. Moreover, the time series that cover the post-invasion period is short, which constrains our empirical ambitions. However, the study's goal focuses on discussing the existing differences during wartime. We apply the set of tests to detect brakes in time series and the change of their proprieties, including applying algorithms accompanied by statistical tests. Despite different difficulties that affect the Ukrainian and other economies during the Russian invasion, we expect to find a change in expectations patterns in all countries. This study provides the first empirical attempt to assess empirically expectations change during the war.

**KEYWORDS**

inflation expectations, war effect, monetary policy.

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**EXPLORING GREEK CONSUMERS' ATTITUDES TOWARD FUNCTIONAL YOGURTS: A FOCUS GROUP STUDY**

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**ABSTRACT**

Greek yoghurt has proven to be an essential part of a healthy diet. Consumers worldwide recognize the nutritional value of yoghurt and add it to their eating habits. In Greece, numerous high-quality dairy industries exist, while consumers are becoming more and more selective about the quality of the yoghurt they consume. However, the factors that influence their buying behaviour are largely unknown. Also, the factors affecting the acceptance of foods with particular health characteristics, such as functional yoghurts, have yet to be explored; this study attempts to investigate them. Further, in highly competitive markets, such as the Greek dairy industry, research methodologies need to be adapted in order to better understand end-users' needs and especially when new products are developed. Under that context, five focus group sessions were conducted in three urban cities of Greece, with a total of 45 participants. Their objective was to identify the main aspects involved in Greek consumers' buying behaviour, concerning the nutritional characteristics of the yoghurt, the packaging and finally, its overall sustainability.

**KEYWORDS**

Dairy products, yogurt, focus groups, Greece, functional yogurt.



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## EVOLUTION OF INDUSTRIAL PRODUCTION IN GREECE AFTER JOINING THE EUROZONE: A SECTORAL EXAMINATION

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### ABSTRACT

After Greece joined the Eurozone in 2000, the Greek economy experienced two long periods: the first was characterized by continued economic growth, and the second was characterized by a strong recession as a consequence of the economic adjustment program that accompanied Greece's debt obligations and later the effects of the COVID pandemic. In the twenty years that followed the accession of Greece to the Eurozone, the production of the Greek industry was influenced by the general economic development in Greece. However, other factors influenced its development as well. Greek industry has been subjected to intense external competition from countries with significantly lower labor costs; to these countries, we can add the Balkan neighboring countries following the opening of their economies, as well as a slew of significant Greek investments. Is the development of industrial production the same for all sectors of the industry? This paper tries to answer this question by examining the evolution of the Greek industry in the period 2000–2021. The paper examines the development of industrial production, trying to identify some factors that had a particular impact. Then it focuses on the particular evolution of the industrial sectors. The examination highlights three periods: the 2000–2021 period; the sub-period before the program of economic adjustment, 2000–2010; and the crisis period, which also includes the period of the COVID pandemic, 2011–2021. The results show a significant differentiation between sectors' production for the whole period but also for the sub-periods as a consequence of the particularities of the sector and the economic conditions in Greece and abroad. The crisis period is of particular interest since during this sub-period, for some sectors, the production is higher compared either to the entire period, 2000–2021, or to the pre-crisis period, 2000–2010.

### KEYWORDS

Industry, Crisis, Greece, sector

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## A DECISION SUPPORT SYSTEM FOR FLEXIBLE BUDGETING

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### ABSTRACT

In the modern, complex business environment, every firm handles huge amounts of information. Management time is usually very valuable and limited, so managers deal with a lot of activities simultaneously and do not have the time to go through large databases of information. Expert information systems, like MIS or DSS aim to support them in order to collect only the necessary information, without having to spend their time searching the databases. These systems are trying to access this information and present it in such a manner that managers can identify

potential problems with a quick view of the system. They also provide managers with the ability to drill down information and identify the exact source of the problem and give them alternative courses of action. For instance, if a manager checks the variance analysis and discovers that sales are lower than expected, then he could check the sales department and find out which specific region and which particular product causes the problem of declining sales. Also, the system can provide him with some suggestions about the potential cause and some alternatives in order to overcome the problem. The main role of a DSS is to control business as well as possible. In order to do that, managers should have access to the following information: i) Budgeting: It is the financial plan of the company, which will assist it to reach its long-term objectives and managers should follow the suggestions of that plan, as close as possible. ii) Budgetary monitoring and control: Master budget are created before the actual time period and contains assumptions based on historical data, so it does not take into account some unexpected and unpredictable events. Since it is not right to compare the actual results with the ones budgeted in the previous time period, created the flexible budget. iii) Variance analysis: It helps management, with a very quick view, to see where the company is performing purely and by drilling down information from the database, to address the problem. This analysis provides managers with a very confident control tool of the entire company. iv) Profit & Loss Account: It provides very useful information about the total performance of the company, at the end, as well as during the year. It is a benchmark of performance for each company and reflects the actual performance of the current organisation. For that reason, all the companies, listed or not to stock markets, publish their Profit & Loss Account frequently (quarterly, semi-annually or yearly).

#### **KEYWORDS**

Decision Support System, Budgeting, Variance Analysis.

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## **FOREIGN DIRECT INVESTMENTS COUNTRY ATTRACTIVENESS IN POST-COMMUNIST CENTRAL AND EASTERN EUROPE**

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#### **ABSTRACT**

The current study aims to investigate the relative country Foreign Direct Investment (FDI) attractiveness in the region of post-communistic Central, East, and Southeastern Europe, where countries started to build a democratic state and an open market economy based on relatively similar initial conditions after the fall of the Berlin wall (Outhwaite, 2016). Although the transition strategies and policies were more or less similar, influenced by the recipes of the so called "Washington Consensus" and the Bing Bang approach towards the establishment of liberal market economies, there are significant differences (chronological or substantial) in the implementation of these policies, leading to different paths of policy efficacy and institutional outcomes. Generally speaking, governance modes and efficiency vary across countries along with differences in political and institutional regimes including corruption and the rule of law. The paper will attempt to show that exactly these different governance paths are determining

the 'individual country FDI attractiveness and sustainability' across all eleven (11) countries in the specific region. The methodology applied is influenced by the qualitative research methods. Filtering through theory and empirical evidence of firm internationalisation strategies, firm location choices abroad, modes of foreign market entry, country specific conditions related to the economic, social, and political environment, governance and institutional settings and their alignment with political regimes and international relations, this paper identifies the more relevant determinants of country FDI attractiveness, express them in quantifiable forms and measures 'how much this attractiveness is different or not', across those countries in the region. The paper concludes that the procedural structure of starting up a new business, combined with the economic and market regulation policy structure and efficiency are the main conjunctural factors, which determine the degree of FDI attractiveness of a country and its sustainability.

### KEYWORDS

Foreign Direct Investments, FDI attraction, QCA, qualitative research methods, FDI determinants, small N, ease of doing business, degree of democratization, EU-entry policy.

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## FACTORS AFFECTING THE GROWTH OF SMALL AND MEDIUM SIZED ENTERPRISES: EVIDENCE FROM A SMALL-SIZED GREEK CITY

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### ABSTRACT

It is widely acknowledged that SMEs are playing an increasingly significant role in the production of jobs, money, and innovation. However, SMEs frequently run into issues, which causes many businesses to perform poorly and stop expanding. Additionally, it is widely acknowledged and understood that SMEs have a significant death rate in the first two years. Given this high failure rate, it is imperative to investigate the elements necessary to help SMEs survive and, in fact, advance to the development stage of the organisational life cycle. The goal of the study was to identify the variables influencing the development of SMEs in Kozani, Greece. To achieve its goals, the study used a descriptive research approach. A sample of 30 SMEs in Kozani, Greece, that hold licences were the study's target population. The necessary data was gathered for the study using a questionnaire. The data was coded, quantified, and subjected to both quantitative and qualitative analysis. Utilizing a social sciences statistical software, quantitative data was analysed (SPSS). The research led to the conclusion that a lack of managerial competence and access to money are the key socioeconomic factors restricting the expansion of businesses in Greece. Access to infrastructure, governmental regulations, and business information were also shown to have a major influence on SMEs. According to the study, the government should begin promoting the development of basic business and financial management skills because

doing so will aid entrepreneurs in enhancing their entrepreneurial abilities, which will enable them to recognise and seize business opportunities and make informed investment decisions.

**KEYWORDS**

Small and medium sized enterprises, Sales growth, Management of SMEs, Business growth.

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**DETERMINANTS OF REGIONAL BUSINESS CYCLE  
SYNCHRONIZATION IN GREECE**

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**ABSTRACT**

We assess the determinants of regional business cycles synchronization in Greece vis-à-vis the Greek reference business cycle, using NUTSII annual data for the period 2005- 2018. The computation of the time-varying synchronization is based on the dynamic estimate of a conditional variance-covariance model and subsequently a panel regression model is used to evaluate its determinants. The findings show that tourism, distance from Attica, investments, savings, disposable income and unemployment are the key determinants, based on the GVA business cycle synchronization. We also assess the determinants of unemployment synchronization and we find that island regions and regions with higher importing activity tend to exhibit lower level of synchronization. On the other hand, typical drivers of regional synchronization, as were suggested by the related literature, do not seem to play a significant role in the case of Greece (i.e. industrial structure, level of exports and public spending). Even more, though Greece is a major tourist destination, we do not observe tourist regions' business cycles to deviate from the Greek-wide business cycle, which might be explained due to derived economic activity created by the tourist regions to non-tourist regions.

**KEYWORDS**

Business Cycle, Synchronization, Dynamic correlation.

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## CORPORATE GOVERNANCE IN THE CYPRIOT CAPITAL MARKET

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### ABSTRACT

The paper investigates corporate governance in Cyprus through analyzing the regulatory framework and a large sample of public Cypriot firms. Corporate Governance was first introduced in 2002. This Code was subsequently revised in March 2011, September 2012 and January 2019. The Code applies to all listed companies in the Cyprus Stock Exchange, and companies of the non-regulated are excluded. We attempt to highlight various characteristics of the enforcement of corporate governance rules in the everyday practice of corporations. According to the Cypriot Code of corporate governance at least one third of the directors must be independent and a relevant application must be submitted to the Cyprus Stock Exchange to be granted a reasonable period for compliance. The size and composition of the board of directors should reflect the company's size and activities. The remuneration of executive and non- executive board members is handled by the remuneration committee. This committee is responsible for the appointment, remuneration and termination of the external auditor. Pursuant to appointment, the committee must ensure the independence and effectiveness of the auditors, particularly when they offer a substantial volume of non-auditing services. Since it is difficult for shareholders to monitor boards or senior management effectively, transparency is essential. This may be achieved with adequate supply of timely and accurate information.

### KEYWORDS

Corporate Governance, Cypriot capital market, corporate board, board committees.

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## STORYTELLING AS A FACTORY REDUCING SALES TRANSACTION COSTS

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### ABSTRACT

Brain research has solidly disrupted the original image of the rational man. The aim of this article is to try to find answers questions: What role do neuronal structures play in the decision-making process? What influence do knowledge, experience, mood, different brain areas, neurotransmitters have on human choices? According to the affective concept of risk, emotions strongly influence the content of decisions and some choices cannot be made without them. According to somatic marker theory, when making decisions, the decision-maker unconsciously knows which strategy is more favourable to him or her and strives to choose it. The complex system of connections between different areas of the brain determines how a person reacts under conditions of uncertainty and risk. The later part of the article will focus on the purchase decision on the basis of a storytelling communication that is able to influence the consumer

in an appropriate way. On the basis of a study conducted on consumers with the aid of EEG equipment, the author will attempt to answer the question of whether it is possible to reduce transaction costs by means of appropriate communication based on storytelling, thus facilitating a correct consumer decision more quickly and effectively.

#### KEYWORDS

Neuroscience storytelling behavioural economics, behavioural finance

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## ADVANCING SUSTAINABLE DEVELOPMENT IN THE REPUBLIC OF SERBIA: CHALLENGES AND OPPORTUNITIES

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#### ABSTRACT

The growing number of social and environmental challenges has led to the need to create new concepts that will enable them to be overcome. As such, sustainable development is a concept that has received considerable attention in recent years. The essence of the concept of sustainable development is the idea that economic growth, social well-being, and environmental protection must be complementary and not conflicting. The significance of sustainable development at the national level is manifold. Sustainable development is a prerequisite for achieving the long-term prosperity and well-being of the citizens of a country. By focusing on sustainable development, governments can ensure that their citizens have access to the resources and opportunities needed to achieve a better quality of life for current and future generations. In addition, sustainable development is recognized as one of the ways to solve global environmental challenges that affect not only the natural environment but also the social and economic well-being of countries around the world. By implementing sustainable development policies at the national level, governments can help reduce their country's environmental impact, joining global efforts to address these challenges. Moreover, sustainable development is crucial for achieving global sustainable development goals set by the United Nations. Implementing sustainable development at the national level requires a holistic and integrated approach that simultaneously addresses economic, social, and environmental concerns. However, developing such approaches requires cooperation and coordination between different sectors and levels of government, with the simultaneous involvement of civil society and the private sector. Therefore, it is necessary to create programs and policies that stimulate the active participation of all sectors of society in achieving the goals of sustainable development. A comprehensive approach characterized by the cooperation and commitment of all interested parties can contribute to creating a better perspective for all citizens. Bearing in mind the positive aspects of sustainable development, in order to assess the progress of the Republic of Serbia towards the achievement of the global sustainable development goals, this paper analyses several sustainable development indicators over time with the aim to create

guidelines necessary for the enhancement of the progress towards sustainable development. Orientation towards achieving the goals of sustainable development enables the creation of a more just and equitable world, ensuring a thriving future for all citizens.

**KEYWORDS**

Sustainable development, Republic of Serbia, Economic development, Social development, Environmental protection, Time series analysis.

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**CORPORATE RESILIENCE TO THE COVID-19 PANDEMIC:  
THE CASE OF ALBANIA**

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**ABSTRACT**

The outbreak of coronavirus disease 2019 has changed the world and affected firm survival and growth immensely. The serious public health crisis caused by (COVID-19) pandemic has demolished the global economy. The major economic effects of the pandemic on companies create negative outcomes such as fall in consumer demand, disruption of production, and declines of financial conditions. These adverse events cannot be evaded, and they bring long-lasting impacts. Meanwhile, corporate resilience is defined as a firm's ability to recover from shocks and adapt to disruptions (Roundy et al., 2017). Accordingly, it is beneficial to detect and study the determinants of resilience at the organizational level in Albanian private sector in the context of large events such as a global pandemic. The extent to which firms used financing resistance for survival and growth depends on their financial conditions and liquidity and solvency requirements. This paper used data from Enterprise Survey Follow-up on COVID-19 2020, a survey designed by the World Bank Group to provide information on the impact and adjustments that COVID-19 has brought about in the private sector, the data was extracted only for Albania. The aim of our research is to investigate the effects caused by the COVID-19 outbreak on the firm's access to finance. The findings show that the main establishment that companies have used with cash flow shortage has been the loans from commercial banks. The findings identify the determinants of corporate resilience that were uniquely adapted to the COVID-19 pandemic.

**KEYWORDS**

Corporate resilience, Covid 19, financial conditions

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## SMART MANUFACTURING INVESTMENTS PERFORMANCE: INSIGHTS FROM FACTOR MODELS APPLICATIONS

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### ABSTRACT

Sustainable investors look beyond financial gains when allocating money. Green portfolios need strong total and risk-adjusted returns to prevent divesting from green companies and harming climate change mitigation efforts. Discovering sustainable stock and portfolio pricing drivers is thus crucial, as portfolio management decisions, capital planning, and performance evaluation depend on expected return or cost of equity. We use daily data from October 2019 to October 2022 to analyze smart manufacturing sustainable investments by contrasting the risk-adjusted performance of a smart manufacturing-tilted portfolio of companies, a traditional industrial portfolio and an S&P500 tracking portfolio. Furthermore, we decompose the excess returns of these portfolios using worldwide estimates of one-factor, three-factor, and five-factor asset pricing models. Results show that smart manufacturing is less profitable than conventional investments, but it reduces market risk and diversifies equity portfolios. Moreover, there is a positive loading for the size factor and a negative loading for the value and profitability factors for the smart manufacturing portfolio, which suggests the adoption by smart factories of the Industry 4.0 technologies, boosts efficiency and quality, and, ultimately, enhances smart manufacturing investments returns. Before this is accomplished, smart manufacturing can successfully replace green investments in a diversified portfolio.

### KEYWORDS

Smart manufacturing; pricing factors; factor models; carbon neutrality; green investing

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## THE ORGANIC FOOD MARKET IN THE POST COVID-19 ERA: EVIDENCE FROM NORTHERN GREECE

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### ABSTRACT

Numerous effects on consumer behaviour in the Greek market could be observed since the outbreak of the Covid-19 pandemic and the beginning of the Russian-Ukrainian war. Previous research suggests an increased interest in organic food products on a global scale as consumers seek healthier, more environmentally-friendly products that meet animal welfare standards. Moreover, food supply-chains have experienced major disruptions such as food shortages. This is especially the case for the European Union since a considerable amount of raw food materials



was being imported from Ukraine. The goal of this paper is to assess the impact of both current events on the organic food market with evidence from Northern Greece. A quantitative research has been conducted to collect primary data, which are analyzed with descriptive statistics analytical tools. The research sample has been divided into three (3) groups. The criterion for the division is the primary motive that drives consumers to opt for organic food product alternatives. Each group has been tested against several proposed buying factors to discover possible links. The results of this research suggest a relation between organic food consumption and specific demographic characteristics.

**KEYWORDS**

Organic food, Consumers' purchase intention, Impact of Covid-19 pandemic, Impact of Russia – Ukraine conflict.

## THE RESPONSE OF INTERNATIONAL FINANCIAL INSTITUTIONS TO THE COVID-19 CRISIS

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**ABSTRACT**

The COVID-19 pandemic could be characterised as one of the most impactful crises so far in the 21st century, because of its multiple and multidimensional ramifications. The sudden shutdown of the global economy after the outbreak of the pandemic created the conditions for a new global crisis, just a few years after the global financial crisis of 2007-08. Furthermore, it overlapped with the ongoing challenges of dealing with the consequences of climate change and the digitilisation of economies, as well as the existing geopolitical rivalries (e.g., USA-China) and geoeconomic inequalities, at the global and regional levels. In this context, the International Financial Institutions (IFIs) were called on to play a dual key role: to act both as stabilisers of the global economic system –based on their founding purpose– and as promoters of international cooperation, through the balancing of national policies for the management of the COVID-19 crisis. The aim of this paper is to capture the IFIs' response to the responsibility of managing and dealing with the economic effects of the pandemic crisis. IFIs, such as the International Monetary Fund and the World Bank, demonstrated flexibility and adaptability in providing financial support to address the crisis, showing that the international community was not inactive at this critical juncture. In addition, this study examines whether the responses of the international financial institutions to the crisis opened a window of opportunity to re-strengthen the model of multilateralism at the international level.

**KEYWORDS**

International Financial Institutions, COVID-19, Economic crisis

## THE IMPACT OF COVID-19 PANDEMIC ON ALBANIAN HEALTH EMERGENCY SYSTEM

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### ABSTRACT

During the COVID-19 pandemic Health Emergency Systems have been stressed at worldwide level. They have had to face the impact of a little-known disease and for which extremely heterogeneous taking charge have been over time identified. The usual responses, i.e. transport of patients to hospitals and their reception into emergency rooms, has proved soon to be ineffective and, sometimes, also dangerous in favoring contagion for the high number of the people involved. Balkans and Eastern Europe countries were no exception in it. Even more, in these countries the situation has been more complicated for the under sizing of their emergency systems and their hospitals. This research aims to study the response both in patients' taking charge and in cost terms of health emergency systems in COVID 19 pandemic, with particular attention to those of Balkan and Eastern European countries. The methodology chosen has been the case study analysis. We have especially chosen as case study the Albania Healthcare Emergency System. In fact, in Albania an informative and monitoring system related to the health emergency activities has been recently implemented for having all needed data. In addition, the Albanian healthcare system is representative of the national healthcare system of the transitional countries because all have got the same organizational, hospital and local characteristics. The analysis of the Emergency System has been conducted both with interviews to the top managers of National Centre for the Health Emergencies 127 and of the National Institute of Insurance. A desk analysis of the data and of the documents of both the engaged Albanian Institutions has been done. Data showed there was an immediate response to population health needs by the Albanian health emergency system. The number of calls to the number 127 of the Albanian health emergency system for COVID-19 was +47% in 2020, +56% in 2021 and +31% in 2022, compared to 2019. The requests were predominantly managed by telephone medical counselling (+243% in 2020, +89% in 2021 and +25% in 2022). This resulted in a strong containment of the growth in the number of missions, only +15% in 2020, +22% in 2021 and +5% in 2022. The missions were completed more on site (+21% in 2020, +30% in 2021 and +7% in 2022) that with a transport in hospital (+12% in 2020, +17% in 2021 and +3% in 2022). This led also to a reduction of access to health emergency departments of -9% in 2021 and -25% in 2022. In 2020 the unsustainable increase of work for regional hospital for the management of the COVID-19 pandemic led to the activation of emergency rooms and diagnostic services also in university hospitals in 2021. Hospitals expenditure on emergency grew only by 22% in 2020 and 22% in 2021 in the face of higher costs for the management of patients affected by COVID-19. This increase is due especially to diagnostic services, which have noticed +1445% in 2020 and +161% in 2021 of costs. The reorganization of Albanian Health Emergency System moved from transport to consulting. The immediate adaptation and to strong resilience of this system to the evolving field of action has permitted to maintain a control on processes and costs, guaranteeing the sustainability and the god performance of the Albanian Health Emergency System.

### KEYWORDS

Health emergency system, COVID-19, impact, Albania, reorganization.

## WHAT DRIVES CONSUMERS' CHOICES WHEN BUYING FLOWERS: A BEST WORST SCALING APPROACH IN NORTH GREECE

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### ABSTRACT

Flowers play a significant role in many of our lives, whether it's as a gift for a loved one, as decorations for a special event, or simply to brighten up someone's mood. When it comes to choosing the right flowers, there are several factors that can impact a consumer's decision. There are many factors that can influence a consumer's flower selection, including occasion, location, cultural issue, budget, seasonality. However, there are more factors like personal taste, preferences and aesthetics that shape consumers' final decision to pick up specific flowers in order to buy a bouquet. Understanding these factors can help consumers choose the perfect flowers for any occasion and at the same time it can help flower growers and selling businesses to adjust their production and activities. The aim of this survey is to explore the various factors that influence consumers' flower selection to gain a better understanding of what drives people's choices when it comes to choosing flowers. By gathering information from a more than 200 consumers of the area of Thessaloniki (north Greece), this work could provide a more comprehensive picture of the flower-buying process and gain valuable insights into what drives consumer behaviour in this market. Best-worst scaling (BWS) was used to gather the data on consumer preferences concerning nine well known flowers in the Greek Market. The method involved presenting to the survey participants with a series of flower pictures and asked them to select the best and worst options from each the set. The objective of BWS was to determine the relative importance of different flowers and identify the most and least preferred options. BWS is one of the most reliable methods for measuring consumer preferences, as it reduces the influence of anchor bias and social desirability biases, which can impact the validity of traditional survey methods. The results of the survey can be used to investigate flowers market in Greece and get valuable insights in the mechanism of selecting flowers and in general consumers decision-making processes.

### KEYWORDS

Consumer Behaviour, Best Worst Scaling, Flowers' Market, North Greece.

## THE BIDIRECTIONAL RELATIONSHIP BETWEEN ECONOMIC GROWTH AND HUMAN DEVELOPMENT. STUDY CASE: FORMER COMMUNIST STATES IN THE EUROPEAN UNION

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### ABSTRACT

There is a continuous competition in the research literature, according to which the development of human capital is one of the essential elements, which has effects on economic growth, and, directly, on the development and general well-being of the population. Starting from one of the objectives of sustainable development, which aims to ensure a healthy life, which leads to the promotion of the well-being of all citizens of a state, the level of human development is conceptualized as having three components, namely: health, education and economic conditions. Health refers to access to quality medical services and healthy life expectancy. Education refers to access to basic education and its quality, as well as the literacy rate of the population. Economic conditions refer to the level of income and access to essential economic resources and services. In this sense, taking governmental measures towards the development of human capital is considered to be a lasting process, being an extension of economic growth, through which the expansion and improvement of the educational capacities of the population can be pursued, but also through which elements related to health. The objective of this research refers to discovery the existing interconnections between economic growth and human development, at the level of the ex-communist states of the Central and Eastern European Union, respectively: Romania, Poland, Hungary, the Czech Republic, Slovakia and Slovenia. The research methodology involves the application of Granger causality, at the level of the analyzed variables, for the period 2000-2020, quarterly data. Granger causality, the method proposed for research, evaluates whether one variable can "predict" the values of another variable, over time. This method can provide important information about the direction and strength of the link between economic growth and human development. The results of the research are very important because they can provide valuable information about the interconnections between economic growth and human development at the level of these countries. This can help governments and other organizations to better understand the importance of investing in human development and how it can contribute to long-term economic growth. Research results can be used to develop more effective policies and strategies to support human development and economic growth in these countries. They can also help create a more stable and predictable environment for investors and improve citizens' confidence in society and the economy. Finally, the research results can contribute to building a more prosperous future for the citizens of these countries. In conclusion, the level of human development is an important concept that helps us assess the progress of a country or region in terms of the well-being of its citizens, and identify problems and ways to address them.

### KEYWORDS

Granger causality, economic growth, life expectancy, level of education, standard of living.

## **PATIENT-REPORTED EXPERIENCE MEASURES (PREMS) AS ORGANIZATIONAL INNOVATION: THE IMPACT OF MANAGEMENT CHOICES ON PATIENT PERCEPTION OF CARE DELIVERY.**

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### **ABSTRACT**

Healthcare services' ultimate mission is to generate value for their patients. This implies taking into account patients and caregivers' opinions on the care they provide, as a satisfied patient not only is the best indicator of the quality of care provided but it is considered to be an healthcare service's outcome (Abdel Maqsood et al., 2012). The USL Toscana Centro's (USLTC) Nursing Department adopted PREMs in January 2022 joining the Permanent PREMs Observatory at the Sant'Anna School of Advanced Studies of Pisa, with the aim of improving its performances and enhancing its human capital. By gathering data on patients' perceptions during their hospitalization the organization's management can identify the trajectories following which it becomes possible to drive service improvement strategies (e.g., workflows' redesign, care pathways' improvements, ward layout appropriateness, etc.) and human resources management's (HRM) promotion through a real-time return of the results (De Rosis et al., 2021). Aiming to achieve these two goals, measurement must be systematic. All users are invited to participate in the investigation by hospital staff, exceeding the sampling to the census. Patients and caregivers are invited to fill out a survey that reaches them through an SMS and/or e-mail containing a personalized link to access and complete it online, twenty four hours after the hospital discharge. The survey includes standard experience closed questions and a series of open ones, to allow a punctual description of the most relevant aspects experienced. USLTC's Nursing Department carried out staff's training on patient recruitment and a pilot study in two inpatient's wards during the first two months of the 2002, before the scaling up. In the first year of operation in 9 hospitals, the responses of 5107 patients were collected (32% response rate), establishing a new routinely management-informing data collection. The dimensions with the best evaluation, among those investigated, were those relating to the "nursing staff's kindness and courtesy in welcoming the patient to the ward" and the "management of pain". The dimension with the worst evaluation was that of "patient involvement in the treatment path". The total value of the assistance received in the hospitalization experience was 94% "excellent and good", 4.51% "sufficient", 1.55% "poor" and 0.43% "very bad". The purpose of this managerial tool is to open a direct channel with patients, to collect their stories and to treasure their experiences, with the aim to improve the quality of the assistance offered, so much to enhance the health care staff who are committed daily to providing services.

### **KEYWORDS**

PREMs, organizational innovation, management, patient value, healthcare outcomes, performance evaluation.

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## EXPLORING THE FACTORS OF ACCOUNTING INFORMATION SYSTEMS SUCCESS IN GREEK HOTEL INDUSTRY

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### ABSTRACT

Accounting Information Systems (AIS) mainly aim to transform financial data into useful financial and management information. Their effectiveness, or else their success, which reflects the extent that their users' needs are met, plays an important role in supporting decision making. Previous studies have concluded that user satisfaction is the most widespread and representative measure of the Information Systems (IS) success. In this context, the success or otherwise the satisfaction of the AIS users is an important issue for any company as long as one software cannot be suitable for everyone, let alone an accounting software that must satisfy the needs of the users. Moreover, due to the information intensive and competitive nature of hotel industry, AIS success plays critical role in the operational success of hotels. The purpose of this study is to investigate a set of factors influencing the AIS user satisfaction in Greek hotel industry. The results of our empirical research demonstrate that system quality, information quality, system use, service quality, firm's size, years of system use, information technology integration and organic structure have a positive impact on user satisfaction towards AIS. On the contrary, the statistical analysis proves that the users' level of education is negatively related with AIS user satisfaction. Finally, the findings of current research theoretically contribute to the IS and accounting literature and provide managerial implications for IS developers and financial executives.

### KEYWORDS

Accounting Information Systems, success, user satisfaction, hotels

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## ECONOMIC AND HEALTH EFFECTS FROM MIGRATING POPULATIONS

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### ABSTRACT

Greece's national health system is called upon to meet the challenge of a large volume of migrant populations with particular pathogenesis while meeting the health needs of the domestic population. The aim of this paper is to present the economic and health effects of the presence of migrant populations. We also perform a thorough a review of the literature on the internal and external operating environment of the National Health System (NHS) in Greece, with emphasis on the period cover the Greek economic crisis period. A methodological framework of four distinct and sequential research stages was chosen. The sample used was 224 health professionals working in public health system. The health professionals came from all levels of public health (primary, secondary and tertiary health care) and were drawn

from the medical, nursing and paramedical staff of each health facility. The immigrant waves has significantly impacted the Greek health system. Health professionals in public health are quite often confronted with refugees and asylum seekers in their daily work especially in the primary health care sector. The pathogenesis of migrant populations varies and it seems that health professionals are also confronted with particular illnesses that are uncommon in the general population. The Greek population, still suffering from the effects of the economic crisis without adequate information, may views refugees/asylum seekers as a cause of expenditure of precious national resources.

**KEYWORDS**

Greek National Health System, immigration, economic crisis, health care.

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**IMPLEMENTATION OF INTERNAL AUDIT IN PUBLIC HOSPITALS**

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**ABSTRACT**

Internal control is an important tool for exercising good governance in all organizations regardless of their object and legal form. The focus of this research is the implementation of internal control in public hospitals in Greece. Their size, their structure, the cost of management and services provided and the complexity of their operations are only some of the factors that make them organizations of high interest and maximum importance in the economy of a state. This research describes the regulatory framework, the prescribed procedures, the scope of application and the intended objectives of internal control as analyzed in the laws governing the application of internal control to date. Through interviews with people directly related to the audit work in public hospitals, we try to establish how easy it was to introduce the internal audit department, whether its implementation is sufficient and complete, what pathologies and weaknesses the legislative framework shows, whether there are problems in daily operation and what improvements and changes could be made. As can be seen from the results of the research, the application of internal control so far is more formal than substantive. The regulatory framework as defined by Law 4025/2011 has many weaknesses and shortcomings. The audit focuses mainly on accounting and computerization issues, while the functional departments of the hospital (clinics, nursing units) are not audited. The audit committee has no practical role and its establishment raises a question of independence and impartiality of the internal auditor as it is composed of the auditor and the auditee (members of the Board of Directors). The understaffing of hospitals is an equally important issue as it hampers the work of internal auditors and the effort to improve hospital operations. The new Law 4795/2021 corrects many weaknesses of the existing regulatory framework; however, its implementation is not yet complete as there are difficulties in setting up internal audit units by hospital employees and pending clarification instructions from the Ministry of Health.

**KEYWORDS**

Internal Audit, Public Sector, Public Hospitals, Corporate governance

## DIVERSE BOARDS IN THE UK AND THEIR CSR SUSTAINABILITY DISCLOSURE QUALITY

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### ABSTRACT

Corporate social responsibility (CSR) includes practices and policies implemented by firms on environmental, social, governance and economic issues. Disclosure of these practices is essential for key interest groups and their decision-making process. The European Union (EU) in an effort to promote CSR and improve corporate transparency approved the EU Directive 2014/95/EU, a huge step in implementing sustainability reporting in Europe. Under this EU Directive large firms, both listed and unlisted with more than 500 employees, need to prepare a separate non-financial report, which discloses information on environmental, social and governance (ESG) practices. Topics concerning human rights, anti-corruption, bribery and disclosure on the diversity of the firm's board of directors is also required. Some flexibility is given to Member States in the implementation process of this directive. Although, ESG disclosure practices in the EU are mandatory since 2017, uniformity is far from being attained between EU countries and companies. This paper investigates the extent to which gender and cultural diversity of UK firms' board of directors affect the quality of CSR sustainability disclosures, in light of the mandatory nature of sustainability reporting disclosure practices in 2017. Using a large panel set for the period 2012-2021 for FTSE 350 UK firms, this study investigates the effect of diverse boards on sustainability reporting quality, both before and after the mandatory sustainability reporting disclosure practices of 2017. The results indicate a positive relationship between both diverse boards, both in terms of gender and culture, and the quality of sustainability reporting, after the mandatory sustainability reporting disclosure practices of 2017. Insignificant relationships between these variables exist before 2017. The results obtained underline the significance of diverse boards and their effect on sustainability reporting quality. Our findings are important for regulators, policy makers, practitioners, and the management of firms that aim to go beyond caring simply about profit maximization and aim at actively moving towards CSR issues and sustainable development.

### KEYWORDS

Board of directors, gender diversity, female directors, sustainability reporting, Directive 2014/95/EU



## FROM DATA TO KNOWLEDGE ABOUT CUSTOMERS: ANALYSING DIGITAL INDICATORS RELATED TO E-BUSINESS OF EU ENTERPRISES, HIGHLIGHTING SMES POSITION

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### ABSTRACT

The collection and analysis of customer data is very important for companies, as this way, they can gain a lot of knowledge with the aim of delivering better and more personalized offers to as many consumers as possible. In the meantime, this is also a strategic step for them as well to reduce costs and increase their income levels through the introduction of new products and services or for the development of traditional ones supplemented by digitalization opportunities. In order for companies to be able to fully implement data-driven electronic business strategies, it is necessary to collect data, process it with the appropriate tools as soon as possible to extract the key information from it which is needed to develop the best company strategy in many levels. When analyzed by company size category, we can generally conclude that larger companies have been using digital tools supporting these forementioned processes for quite a long time now, therefore their customer acquisition costs and carbon footprints in the areas of customer acquisition and advertising (and daily operation) are significantly lower. On the contrary, examining at European Union level, the situation of small and medium-sized enterprises is way more backward regarding the adoption and integration of these technologies, and since they are considered as the driving forces of national economies, it is of utmost importance to support these enterprises and make their daily operations smoother while providing them guidance how to develop a more sustainable business strategy. The ultimate zero-emission EU goal by 2050 cannot be achieved without the active usage of digital technologies. In our article, we integrate the most common indicators which can characterize the digital activities of businesses related to customer analysis into the ETL process model. Companies collect customer data mainly from websites and social media platforms. They collect data about the internet activities, usage habits, and interests of their visitors, based on which - after almost prompt analysis- they can provide personalized advertisements and offers for them. A significant part of the collected user data is considered as Big Data. Knowing this, the key lies in the fact that these datasets should be processed and analyzed as quickly as possible, since the informational value inherent in them decreases over time (customer preferences can change, competitor can reach the customer sooner). This highlights that the above-mentioned SME companies, which do not have a well implemented digital strategy yet can lose many great opportunities. In our article we demonstrate some digital indicators used for measuring the readiness to gain customer information for better business strategy and we introduce our results on these indicators by enterprise size categories using ANOVA to analyze the differences statistically. We also highlight the situation of small businesses using a sustainability SWOT (sSWOT) analysis to support their digital journeys.

### KEYWORDS

Digitalization, customer information, readiness, e-business, SMEs.

## THE EFFECT OF ESG PERFORMANCE ON FIRM FINANCIAL PERFORMANCE: EVIDENCE FROM EUROPE

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### ABSTRACT

This paper investigates the impact of firms' environmental, social and governance (ESG) performance on their financial performance. We use a sample of 1,057 European firms between 2011 and 2021 comprising 7,343 firm-year observations, and measure ESG performance against both accounting and market-based financial success metrics. We provide evidence that ESG performance is significantly positively associated with ROA and Tobin's Q, indicating that better ESG performance leads to improved financial performance. This study contributes to a growing body of research on the relationship between ESG and financial performance and the role of ESG in effective stakeholder management. Overall, we offer insights into the importance of ESG reporting for businesses and its role in making informed decisions and maintaining accountability.

### KEYWORDS

ESG performance; Financial performance; Corporate social responsibility.

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## THE EFFECT OF CSR ASSURANCE AND SUSTAINABILITY REPORTING ON FIRM FINANCIAL PERFORMANCE: EVIDENCE FROM EUROPE

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### ABSTRACT

This paper investigates the impact of firms' voluntary CSR assurance (CSRA) and sustainability reporting on their financial performance. We use a sample of 959 European firms between 2010 and 2020 comprising 8,164 firm-year observations, and measure CSRA and sustainability reporting against both accounting (ROA and ROE) and market-based (Tobin's Q) financial success metrics. We provide evidence that sustainability reporting is significantly positively associated with accounting-based financial performance metrics (i.e., ROA and ROE), while it is not associated with Tobin's Q. When considering CSRA, we reveal that it leads to improved financial performance, using either accounting or market-based metrics. This study contributes

to a growing body of research on the relationship between sustainability reporting and CSRA on firm financial performance. Overall, we offer insights into the beneficial role of sustainability reporting and CSRA as mediums to improve corporate image and to increase legitimacy, which in turn is translated into better financial performance.

**KEYWORDS**

Sustainability Reporting; Financial performance; Corporate social responsibility assurance (CSRA), signalling theory.

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**TRAINING NEEDS IN BIOECONOMY: A CASE STUDY RESEARCH  
IN A PREDOMINANTLY RURAL REGION IN GREECE**

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**ABSTRACT**

Rural areas face great challenges regarding the environment, society, and economy. Focusing on the agri-food sector, the rapid growth of the world's population leads to intensive global food production, which contributes to greenhouse gas emissions, utilizes large amounts of natural resources, and to the loss of biodiversity. Bioeconomy is becoming one of the most important topics in the 21st century as it is a way to secure a sustainable future. Bioeconomy practices, support food demand, resource sustainability, enhance recycling, transformation, and reuse while at the same time a societal change is envisioned in the bioeconomy debate. Although there is enormous potential for the agricultural sector to develop bioeconomy, Greece lacks a national strategy. This paper explores the current situation of the development of bioeconomy in rural areas in Kozani (NUTS3), a typical Greek rural area located in the Western Macedonia Region. The main aim of this paper is to investigate the rural residents' current skills and expertise towards bioeconomy as well as their training needs. Summary statistics and multivariate analysis were performed for the data analysis. Some indicative results of the survey highlight the low familiarity of the residents with bioeconomy. Actually, the findings reveal the importance of constant and relevant training. These outcomes would be useful for understanding the current development of bioeconomy in Greece and future research on this subject.

**KEYWORDS**

Assessment, Bioeconomy, Multivariate Statistics Analysis, Rural policy, Training needs, West Macedonia.

## THE POLITICAL ECONOMY OF INTERNATIONAL TRADE

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### ABSTRACT

International trade has a multidimensional influence on the economy, since it determines to a great extent the production and distribution of products, and the structure of the labour market in the trading countries. Countries with greater trade engagement tend to show higher rates of economic growth and lower levels of inequality. However, it is very difficult to attribute much of the growth to trade openness. Despite the fact that international literature has emphasised on the causal relationship of trade openness to economic growth and economic inequality, the examination of this relationship leads us to mixed and not robust results, with most of the studies having varying outcomes. This paper attempts a thorough review of the related literature, in order to elaborate the most catalytic theories of trade and growth and establish the necessary theoretical background. Moreover, the causal relationship between the above variables is analysed and the crucial evidence of the modern empirical researches is highlighted. The paper concludes that trade openness and economic growth are interconnected. Nevertheless, this correlation depends on many macroeconomic variables and it is not a standardised process that all countries could follow with the same effectiveness. Trade liberalisation has contributed to the reduction of income inequalities across countries, although unequal growth among countries and considerable increase in within-country income inequalities were observed.

### KEYWORDS

International Trade, Economic Growth, Economic Inequalities.

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## THE DIGITAL TRANSFORMATION OF ENTERPRISES AS A LEVER TO ENHANCE EXTROVERSION OF FOREIGN TRADE. THE CASE OF GREECE

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### ABSTRACT

The unprecedented appearance of the Covid-19 virus and the unprecedented outbreak and rapid transmission of the disease, which reached pandemic proportions, created suffocating pressures, in all countries internationally and by extension also in Greece, in the health systems, supply networks and the business community, but also created a "new reality" for citizens. The measures implemented, as expected, among others, had direct and significant effects on all sectors of the economy and businesses. According to the international scientific literature, it is widely accepted that in cases of crises there are significant effects both on the main macroeconomic figures of an economy, and on the terms of international foreign trade at a global level. At both government and business level, there was an immediate effort to adapt to the new conditions through the use of innovative digital technologies and practices. The

digital transformation has highlighted new trends in consumer behavior, in the way businesses operate, in working conditions and in the service and daily life of customers and citizens. In many countries internationally, as expected, some changes seem to take on a more permanent character and are predicted to prevail in the long term, thus shaping a new reality in the social, economic and business environment. According to the international literature, a strong research interest has been generated regarding the mapping of the digital situation and maturity of both the private and public sector as well as the strategic decisions taken towards the digital transition. This article presents the concept of digital transformation as a practice in shaping business strategy, which seems to play a decisive factor first for the survival and then for the growth of the financial data of businesses. Next, this thesis attempts to investigate the degree of digital transformation of the Greek economy as well as to investigate causal relationships in the extroversion of the sectors towards foreign trade. Specifically, the research questions which are attempted to be investigated are the following:

1. To what extent has the digital maturity changed in the case of the Greek economy compared to the EU for the period 2017-2022?
2. What is the change in intensity in Research and Development as a business strategy for the Greek economy in the period 2017-2022?
3. How is the extroversion of businesses per economic sector changing for the period 2017-2022?
4. To what extent can the adoption of new digital practices in the Greek economy contribute to enhancing extroversion?

Methodologically, based on the international literature, secondary research is carried out using data from databases of Eurostat, ELSTAT, EKT and SEV, indicators are extracted to capture the digital situation of the Greek business community (DESI), the extroversion of the sectors of the Greek economy is determined (X/ GDP) by single-digit analysis (SITC1), the Greek reality in the field of Research and Development by geographical classification (NUTS2) is reflected, while linear correlation relationships between the examined variables are investigated through multiple regression. The results indicate the improvement of the digital ranking of the Greek economy, the improvement of extroversion in all sectors of the Greek economy, with the sector of industrial products to be further strengthened, while in terms of the correlation between extroversion and digital maturity there are indications that the digital transformation in the public sector can contribute to the development of foreign trade.

#### **KEYWORDS**

Digital Transformation, Research & Development, Crises, Foreign Trade

## INEFFICIENT INVESTMENT AND INDEPENDENT DIRECTORS' COMPENSATION INCENTIVES

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### ABSTRACT

This paper examines the impact of independent director compensation incentives on the efficiency of investment in Chinese A-share listed companies between 2011 and 2020. Excessive compensation incentives can improve the enthusiasm and diligence of independent directors, but too much can lead to rent-seeking behavior. On the other hand, insufficient compensation incentives can reduce the willingness of independent directors to perform their duties. The findings suggest that there is a significant negative association between excessive compensation incentives for independent directors and inefficient investment, as well as a significant positive association between insufficient compensation incentives and inefficient investment. Overall, we conclude that compensation incentives play an important role in determining the effectiveness of independent directors in promoting corporate governance and reducing inefficient investment.

### KEYWORDS

Independent directors, compensation incentives, inefficient investment, corporate governance.

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## DOES CEOS' EDUCATIONAL BACKGROUND INFLUENCE FIRMS' ESG PERFORMANCE?

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### ABSTRACT

This paper explores the relationship between CEO educational background and corporate social responsibility (CSR) performance in FTSE100 companies in the UK. The study uses ESG scores

to measure CSR performance, and examines the impact of CEO's university ranking, educational attainment, professional background, MBA background, and participation in advanced management programmes on firms' ESG performance. CEO educational background is considered to be an indicator of intelligence, as better-educated CEOs are thought to have greater management skills, experience, and innovation. However, we provide evidence that there is no significant association between CEO educational background and CSR performance in FTSE100 companies. Overall, we add new evidence to a growing body of literature studying the association between personal characteristics of corporate executives and corporate social responsibility.

**KEYWORDS**

Corporate social responsibility, CEO educational background, ESG performance.

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**THE IMPACT OF CSR PERFORMANCE ON CORPORATE INNOVATION**

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**ABSTRACT**

This study explores the relationship between corporate social responsibility (CSR) and corporate innovation. CSR has important implications for both the financial and non-financial performance of a company, while innovation helps businesses adapt to rapidly changing markets and environments. Using a sample of listed companies on the New York Stock Exchange between 2016 and 2019, we examine the impact of CSR performance on corporate innovation. The results indicate that better CSR performance results in improved corporate innovation capability. Our findings offer insights into how businesses can improve their sustainability and competitiveness through environmental and social dimensions. Overall, this paper provides empirical evidence to support the ongoing debate on the relationship between CSR and corporate innovation and suggests that CSR can create a virtuous circle of benefits for the company in all aspects of its development process.

**KEYWORDS**

Corporate social responsibility; CSR performance; corporate innovation; Competitiveness.

## UNIVERSITY'S DEVELOPMENTAL ROLE IN EU SECOND-TIER PERIPHERAL AREAS. COULD GRADUATES' ENTREPRENEURSHIP MITIGATE THE BRAIN DRAIN?

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### ABSTRACT

This conceptual paper addresses the issue of University's developmental role in the areas found at the periphery of the EU periphery, that is, the more lagging areas within the 'Less Developed Regions' (LDRs). It is argued that second-tier peripheral areas present special problems that have been partially addressed from the literature so far. The whole argument is organised in three points. First, the paper provides an extended discussion over University's developmental role in peripheral areas focusing on two perspectives. On the one side, Brown (2016) criticises University's entrepreneurial character in peripheral regions, mentioning that its role overlaps other agents' contribution. On the other side, the engaged University scholarship (e.g. Valance et al., 2018; Fonseca & Nieth, 2021) also rejects the notion of entrepreneurial University, but at the same time puts forward the role of University as a leader/orchestrator in regional development. Therefore, contrary to Brown's perspective, Universities should substantially get engaged in less developed regions. The paper also discusses the alternative of collaborative leadership, between Universities, local agents, government, and other stakeholders (e.g. Grillitch & Sotarauta, 2020). The interplay between the four above actors is challenging due to their different institutional and organisational structures, interests, and needs (Eder & Döringer, 2022). Second, it is argued that firms' insufficient absorptive capacity in second-tier peripheral areas rises serious barriers to University's engagement. Moreover, the business sector's low investment in technological knowledge and human capital could be detrimental for University's engagement. The complexity of the situation becomes 1 Corresponding author: ezarimi@aegean.gr even more difficult when collective actors act rather as individual leaders than cooperators within a common cause. In the case of second-tier peripheries, characterised by their 'thin' institutional/organizational set-ups, the collaborative leadership alternative becomes even more problematic (Marques & Morgan, 2021). Finally, given the above deterring factors for innovation and development, the question is whether Universities in second-tier peripheries could have some other positive impact except serving as Keynesian multipliers. It is argued that, putting aside scanty opportunities for technology transfer, the main task of university in lagging areas is to mitigate the brain drain of its own graduates. This is a hard task because of the anaemic demand for well-educated wage-earners by local firms. The alternative is to boost graduates' entrepreneurship in a broader sense, that is beyond the hype of spin-offs and start-ups. Given the key-role of KIBS as innovation intermediators in peripheral areas, the most obvious link of entrepreneurship policy to innovation refers to the creation by graduates of new firms in the broader KIBS sector. In sum, it seems that the most important Third Mission's task in second-tier peripheries is to preserve the First Mission's achievements (education – human capital).

### KEYWORDS

University's developmental role, less developed regions, brain drain, entrepreneurship.



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## THE IMPORTANCE OF SOCIAL MEDIA ANALYTICS IN INCREASING E-COMMERCE SALES CAPABILITIES

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### ABSTRACT

In the current digital age, social media platforms have become a significant source of information for individuals and organizations. The data generated by users on social media provides valuable insights into consumer behavior and preferences, which can be harnessed by e-commerce companies to improve their marketing strategies and product offerings. The ability to analyze and leverage social media data can be critical to a company's success in the highly competitive e-commerce industry. Companies that can effectively use social media data to tailor their approach to customers and create personalized experiences have a significant competitive advantage. By understanding what their customers want and need, e-commerce companies can improve their conversion rates and ultimately increase their sales revenue. Therefore, the importance of using data from social media to increase the capability to have e-commerce sales cannot be overstated, as it has a direct positive impact on a company's budget, profitability, and long-term sustainability in the market. This article investigates the role that big data analysis on data collected from social media can have on the companies' capability to do business in the e-commerce environment. The study aims to explore the relationship between the number of companies that analyze big data from social media and the number of companies that have e-commerce sales. The datasets, based on statistics between 2016 and 2020, involve companies located within the European Union and we expect the results to show that the countries with a high percentage of companies that analyze big data from social media present a high level of sales executed via e-commerce. This would suggest that the analysis of social media data can have a significant positive effect on the number of e-commerce companies, as it provides valuable insights into consumer behavior and preferences, which can help companies better target their marketing efforts and improve their product offerings. These findings have important implications for companies seeking to increase their presence in the ecommerce space, as well as for policymakers and regulators seeking to promote e-commerce growth.

### KEYWORDS

Social media, E-commerce, Big data analysis.

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## QUANTITATIVE AND QUALITATIVE ANALYSIS OF THE RESEARCH PAPERS REGARDING THE DIGITAL BANKING PUBLISHED IN THE LAST FIVE YEARS

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### ABSTRACT

Digital banking has been a topic of interest for the last five years, as banking evolves at the same pace as technology evolves. Worldwide, a significant number of banks manage to be

pioneers in digital transformation. In this regard, there is a growing interest of the researchers to discover new and interesting facts about this subject. The subtopics are diverse, as this idea can be analyzed from numerous perspectives – from the connection and effects on the bank finances point of view, to the influence of the technological progress and even more. Based on this, a bibliometric analysis was conducted in order to get a clear view of the real researchers' interest. Thus, the research papers published in electronic format on the topic of the digital banking will be analyzed, between 01-01-2016 – 12-31-2021. The papers are available at the Web of Science (WoS) – Clarivate Analytics database. The search engine was set to analyze a series of keywords, which are part of the topic of interest, such as digitization, digitalization and digital transformation. However, there were two directions followed in this analysis, pointing out two research questions – How did research papers on the digital banking system evolve over time? and also What were the most important factors on the development of the digital transformation process in the banking system? On the other hand, to complete the quantitative analysis, a qualitative analysis of the specialized literature was also conducted, observing the trends of research directions regarding digital banking. Finally, the author's general opinion will be presented regarding both data analysis methods and possible future research directions. Certainly, through this analysis, digital progress is proven to exist, being more and more convenient for banks all over the world.

#### KEYWORDS

Bibliometric analysis, Digital banking, Digitization, Digitalization, Digital transformation.

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## OUTLINING THE GREEK GOAT FARMERS' ATTITUDES TOWARDS ISSUES OF COLLABORATION AND INNOVATIONS

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#### ABSTRACT

This paper focuses on the investigation of goat farmers' attitudes towards issues related to the economic crisis, the applied managerial practices on farm, the adoption of innovations by farmers, the support provided from public entities and the functioning of the value chain of goat dairy products. A field survey was conducted and a random sample of 75 goat farmers were interviewed in the area of Macedonia and Thrace - Greece. Goat farmers were asked to indicate the level of agreement/satisfaction on the aforementioned issues. Data were statistically analyzed using Chi-squared test of Independence, in terms of key classification characteristics of goat farmers, such as *time spent in goat breeding, years of operation of the farm, farm's origin, attendance of training programmes, prospect of succession, participation in cooperative bodies, and participation in co-funding programmes*. Regarding goat farmers' business profile, 64.0% have inherited their farm, 54.7% have received funding for their investments on facilities and equipment, and 20.0% apply organic farming, while 60.0% have no succession prospects. Moreover, 10.3% use the Internet as a source of information, thus indicating low ICT adoption,

while 76.0% have not participated in any cooperative body. The 21.4% and 26.8% of the farmers considered vertical integration/marketing and modern development trends, respectively, as an opportunity for development. As for their professional profile, the majority of farmers (78.6%) stated that they are happy with their profession and the breeder's lifestyle (69.3%), and remain in goat farming to feel independent (84.0%). They did not consider leaving their profession for another that is more socially acceptable, nor they considered that their profession prevents them from having a family. The results indicated that these attitudes do not depend on farm's origin, and if the farmer has been funded under CAP measures. However, their attitudes significantly vary in terms of farmer's experience in goat farming, years of operation of the farm, attendance of training programmes, participation in cooperative bodies and succession's prospect, regarding individual issues. Goat farmers consider that the economic crisis has reduced their incomes, affected the industry significantly and prevented young people from engaging with goat farming, independently of co-funding and training programmes. Farmers agreed that, reducing feed by increasing grazing is an applicable managerial practice to limit effects of the economic crisis, as well as the on-farm production of feed, domestic cheese-making, use of family labor and selling milk through cooperatives. However, reducing veterinary expenses, changing production practices, expanding into off-farm employment and reducing livestock are not efficient practices. Goat farmers are not satisfied with the support provided by the state, the technical support from public services and the available information to them, nor with the role of cooperatives and professional associations in relation to their problems. They are dissatisfied with input prices, tax policy and financial liquidity, contrary to technical support from private agronomists and the frequency/standards of milk quality controls. Their attitudes concerning these issues do not depend on farm's origin, while the other classification characteristics significantly affect them. Furthermore, goat farmers consider that innovations are expensive and difficult to be adopted and require proper training. However, farm innovations improve living standards, increase farm's productivity, and contribute to environmental protection and production of high-quality products.

#### **KEYWORDS**

Greek goat farming, farmers' attitudes, management practices, innovations, public support, professional profile

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## **REALITY, CHALLENGES AND PROSPECTS OF LOCAL BUDGETS REVENUE FORMATION IN GEORGIA: EMPIRICAL ANALYSIS AND INNOVATIVE APPROACH**

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#### **ABSTRACT**

The aim of the paper is to study the formation of financial resources of the budget of municipalities and to reveal problematic issues. Local self-government plays a major role in the formation of a strong economy of the country, however, the independence and strength of the municipality is impossible without a balanced budget. Therefore, it is important to analyze the challenges of local budget formation and determine optimization mechanisms. Sources of budget formation of 69 municipalities of Georgia are studied and analyzed in the paper. Based on the analysis of

the research results, the existing problems are identified, and based on the mentioned data, changes to be implemented are proposed, which will play an important role for the effective functioning of the local budgets.

**KEYWORDS**

Budget policy, municipal budget, budget system, state and local budget, intergovernmental relations.

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**THE EFFECTS OF PRIOR EXPERIENCE AND SENIOR MANAGEMENT COMMITMENT ON TRUST AND KNOWLEDGE ACQUISITION IN GREEK INTERNATIONAL STRATEGIC ALLIANCES OPERATING IN SOUTH EAST EUROPE**

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**ABSTRACT**

International Strategic Alliances (ISAs) have become a prevalent strategic option for numerous companies that decide to internationalize their operations. The significant positive effects of trust and knowledge transfer on successful ISA performance have been identified in the literature. Based on elements from the Social Exchange Theory and the Resource Based View, this paper examines the positive impact of a) prior experience in the establishment and management of ISAs and b) senior management commitment on the level of trust the foreign partner has towards the local partner and the subsequent positive effect of partner trust on the level of foreign partner's knowledge acquisition from its participation in the alliance. The research sample consists of 171 ISAs of Greek SMEs operating in the under-researched South East European region. The empirical results are discussed in detail and managerial implications as well as issues for future research are presented. The findings of this study contribute to the relevant literature by offering support to prior research findings. Finally, to the best of the authors' knowledge, it is the first time that empirical evidence regarding these issues have been collected from the region of South East Europe.

**KEYWORDS**

International Strategic Alliance, Prior Experience, Senior Management Commitment, Trust, Knowledge Acquisition, SMEs, South East Europe.

## **SUSTAINABLE CORPORATE GOVERNANCE: TOWARDS A NEW EU NORMATIVE FRAMEWORK FOR CORPORATE LAW AND CORPORATE GOVERNANCE**

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### **ABSTRACT**

Corporate governance and business practices are of paramount importance in order to achieve the goals of the European Union's (EU) successful transition to a climate-neutral and green economy, in line with the European Green Deal initiatives, as well as the United Nations' Sustainable Development Goals. The recent surge in corporate governance can be explained through a wide range of factors related primarily to the structural changes, innovation, and globalization of markets. Effective corporate governance practices are essentials for firms to achieve and maintain public trust, become more attractive to investors and gain competitive advantage. The social, environmental, and ethical dimensions have become crucial in the global policy agenda. Firms need to implement across their value chains, processes that consider social needs and mitigate the adverse effects to the environment and integrate sustainability into corporate governance and management frameworks. Moreover, firms' decision-making should consider social needs, climate, and environmental implications, as well as sustainability. Firms are increasingly implementing due diligence processes to gain competitive advantage in the markets. By pursuing sustainable development goals, companies would have new business opportunities, as well as the ability to strengthen the relationships with stakeholders. This recent call for a new EU normative framework on sustainable corporate governance responds to the increasing market pressure to firms in promoting sustainability. This new framework would protect them from undesirable reputational risks from consumers and investors. EU legislation on corporate due diligence will promote social needs and environmental protection and create a framework to promote fair competition within the EU. Moreover, an emerging strand in the literature examines the way companies respond to sustainability-related issues raised by shareholders and stakeholders. The aim of the study is to examine the provisions of the proposed EU regulatory framework to promote the contribution of firms which operate in the EU single market to take into consideration social needs and environmental issues in their production processes. Such a contribution will further be enhanced through their value chains, by identifying, preventing, mitigating and accounting for their potential negative effects on the society and the environment. The implementation of the appropriate corporate governance and management systems will provide an additional channel for the firms to be successful on this front.

### **KEYWORDS**

European Union; Corporate Governance; Corporate Law.

## DISPARITIES ON REGIONAL ECONOMIC RESILIENCE BY SECTOR OF ECONOMIC ACTIVITY: THE CASE OF GREECE

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### ABSTRACT

Resilience is a concept that has gained attention the past decade, since several crises, such as economic and the COVID19 crises have affected regions' development. Resilience as a concept was introduced initially in engineering and ecology and it was later adopted by other disciplines, regional economics being among them. Holling (1973) used it to identify the reaction of a region to various shocks and crisis and Foster (2007) reported that resilience "is the ability of an economy to anticipate, to prepare, to respond and to recover form a shock". According to Martin and Sunley (2007) "resilience is the capacity of a regional or local economy to withstand or recover from market, competitive and environmental shocks to its developmental growth path, if necessary, by undergoing adaptive changes to its economic structures and its social and institutional arrangements, so as to maintain or restore its previous developmental path, or transit to a new sustainable path characterized by a fuller and more productive use of its physical, human and environmental resources". Later on, Martin et al (2016) used resilience to describe how a region reacts and recovers from a shock (Martin et al. 2016:564), and Di Pietro et al (2021) defined resilience as the economic system's ability to recover from an external disturbance (Di Pietro et al., 2021:287). Although crises can have various impacts on regions, these react differently. The degree of readiness is different, and is affected by the various factors, such as the characteristics of the region (Giannakis and Bruggeman, 2020, Brown et al., 2020, Hu et al. 2022) and the regions' prominent industry (Kaczmarek et al, 2021, Gaki and Koufodontis, 2022). In addition, regions show different levels of resilience. High resilience means that a region can recover from a shock and achieve even higher levels of development. Moderate resilience means that a region will eventually recover from the shock and return to its previous (or somehow lower) levels of development. Finally, low or no resilience means that a region might lose its development path. This paper focuses on the 13 Greek Administrative Units (NUTS II level) and the impact of various shocks (economic crisis and COVID19) on them. More specifically, the aim of this paper is to measure the impact of those shocks on the development of the regions and their level of resilience in regards to productive structure and the sectoral specialization that these regions have. For this reason, employment and GDP per capita per sector is used in order to measure the regions' resilience and recovery. The use of resilience indicators will reveal whether regions that are based on specific economic sectors have different levels of resilience.

### KEYWORDS

Regional Economic Resilience, Economic crisis, COVID19, Greek regions, economic branches.

## NAIVE DIVERSIFICATION AND SECTOR ENHANCEMENT - DOES THE SECTOR FACTOR FURTHER DIVERSIFY A DIVERSIFIED PORTFOLIO?

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### ABSTRACT

One of the key questions that equity portfolio managers, as well as individual investors, need to answer, in order to create a rather well-diversified portfolio, is the number of stocks that should comprise their portfolio, in order to minimize the non-systematic risk. If a portfolio manager could include in his portfolio, as many securities as the ones included in the market, then the variation of the portfolio should approach the systematic variation. However, this cannot be the case in practice, due to heavy transaction and monitoring expenses. Moreover, by obtaining diversification benefits through small (in terms of number of stocks) portfolios, asset managers can generate portfolios of securities with superior performance. There is a significant number of papers, trying to elaborate on the above-mentioned question, the answers being rather controversial in some cases (concluding to a number of 10 to 100 stocks on average). The key elements considered also here, apart from the traditional optimization process (diversification based on risk-return metrics), are transaction and monitoring costs. The target of this study is to show how many stocks are necessary for a well-diversified portfolio, namely the rate at which variation of returns is not further reduced, as a function of the number of securities included, but exploring both naïve diversification (namely random selection of stocks not based on any predetermined criteria) and sectoral filtering (namely maximum and relatively equal representation of all sectors in the portfolios). The purpose of the study is to conclude if the sector parameter could lead asset managers to reduce the number of stocks necessary, in order to construct improved welldiversified portfolios. Exploring the stocks included in the Standard and Poor's 500 Index, and utilizing data for the period 2000 – 2022, the results of our study reveal that the introduction of the sector parameter in the process of choosing random portfolios, decreases the number of stocks necessary, in order to reach the minimum risk level, compared to naïve diversification.

### KEYWORDS

Diversification benefits; Portfolio size; Investment Decisions; Dispersion

## USING TRANSPARENT DISPLAYS FOR IMPLEMENTING AUGMENTED REALITY IN THE CLASSROOM

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### ABSTRACT

Augmented Reality (AR) is a technology that enhances the real world by displaying digital objects on top of it. AR delivers visual elements, sound and other sensory information to users through devices like a smartphone or AR glasses. AR creates many opportunities for educators to help students grasp abstract concepts. Using AR, educators can enhance classroom experiences, teach new skills, and excite students keeping them interested. A form of AR is through transparent or see-through displays, that allow users to see what is shown on the screen while still being able to see through it. Nowadays, there are several transparent displays that can also respond to touch events. Transparent touch displays can be attached to hard cases and be used for commercial purposes. Users can see the product inside the case and be informed about it through the transparent touch screen. In this paper, a HYPEBOX® device (HYPEBOX, 2023), a transparent display solution which enables users to see real products and at the same time interact with digital content on the touchscreen is used for educational purposes. A HypeBox device is part of Innovative Cultural Experience (ICE) system (Kazanidis et al, 2021), developed for promoting cultural heritage. ICE combines cutting-edge technologies such as an interactive transparent screen (HypeBox), and multimedia material in order to provide a unique personal or mass-touring experience, utilizing information based on material and intangible cultural heritage, through narrative scenarios. In the current case, the ICE system is used for educational purposes. The ICE system consists of 3 modules: Backend Management System, AR module and Knowledge Base. The web-based Backend Management System (BMS) supports all administrative actions through the administration page. An educator can add the necessary for the educational scenario information, that will be accessible to students. The multimedia material can be images, videos, text, audio, 360 images, 360 videos and 3D models. All this information is stored in the Knowledge Base. In a classroom setting, students are standing in front of the HypeBox device which contains tangible objects that are placed inside the HypeBox. Students can see the object and can interact with all the multimedia information that is displayed on the transparent touch screen. At this case study, replica artifacts regarding ancient Greece were placed inside the HypeBox device in order to study the perceptions on the use of HypeBox for educational reasons. An educator used the BMS to import all the educational material beforehand. University students tested and interacted with the system to assess its usability and effectiveness. After their AR experience, a questionnaire was filled by the students and the educator. The proposed paper is organized as follows: Section 2 will present the related work regarding the use of AR for educational purposes. An overview of the educational scenario and the educational material used, will be depicted in Section 3. Section 4 will present the findings of the evaluation of the AR experience by university students, while the conclusions of this study will be listed in Section 5.

### KEYWORDS

Augmented Reality, education, transparent display.



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## THE IMPACTS OF COVID 19 PANDEMIC ON FOREIGN DIRECT INVESTMENT

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### ABSTRACT

In recent years, international economic growth has been slow. The influence of the COVID-19 pandemic on the world's economies must be considered. COVID-19 is not only a risk to the public health sector, but it is also a serious threat to the entire global economy. The purpose of this article is to present and analyze the effects of COVID-19 on the Greek and Chinese economies. More specifically, this paper empirically examines how the coronavirus disease (COVID-19) has impacted foreign direct investment (FDI) in Greece and China, two economies of different locations and sizes. COVID-19 has plunged the world into the deepest recession in recent years with unprecedented levels of deprivation, economic hardship and unemployment. Western economies, such as Greece, did not show better reflexes than China in containing the pandemic, with the result that this unprecedented situation, with the emergence of COVID-19, has had a negative effect on global flows of foreign direct investment (FDI). FDI flows must be differentiated on the basis of two different entry modes—greenfield FDI, and cross-border mergers and acquisitions (M&A). The severity of COVID-19 in the host countries adversely affected FDI in different sectors regardless of entry mode, but the effect of the home countries' COVID-19 situation on FDI was not so adverse. The COVID-19 pandemic actually boosted foreign direct investment. The main causes could possibly be the reduction of the companies' ability to invest due to the lack of skilled workers as a result of health security concerns, as well as the drop in the level of corporate profits on one hand and the increase of financing costs on the other. Additionally, it is easy to see that investment trends have been broadly negatively affected in most economies. All these factors are made more apparent by finding that most economies, regardless of their geography, experience a very high level of risk perception in investment and financial markets. Finally, this note is an introduction and preliminary statement of the impact of COVID-19 on FDI.

### KEYWORDS

Covid-19, FDI, Global Economy.

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## YOUNG AGRIPRENEURS OF MOUNTAINOUS AND LOWLAND AREAS: ANALYZING THE DETERMINANTS OF SUCCESSFUL AND SUSTAINABLE FARMS

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### ABSTRACT

The purpose of this study is to find determinants of the perception of success of young agripreneurs, considering for the type of farming. This study develops elements of a research on the business success among 222 young agripreneurs who are active in lowland, semi-mountainous and

mountainous regions of western Greece. The study area ensures the purpose of the research since it consists of areas with different physical, geographical, and socio-economic conditions. This territorial approach to agricultural entrepreneurship according to the type of farming is of great importance for Greece because of the strong differences that characterize the physical and geographical conditions of rural areas, but also of the concurrent economic and social developments that occur in them, in the context of transformation of the Greek countryside. That being said, some rural areas succeed in increasing their overall employment, while others fail to achieve sustainable growth and are often unable to sustain their population.

To explain how the young agripreneurs of these areas perceive success, we chose a set of variables that have already been discussed in previous research on entrepreneurial success: perceived characteristics, innovation, human (education level, training), social and economic (initial financial capital) factors. Understanding the importance of the above factors and deficits for entrepreneurial success is critical for policy makers, entrepreneurs, consultants, and scholars as the role of primary production in Greece and in the world comes to the fore in a particularly poignant way, as the war in Ukraine threatens millions of people with a food crisis, while in our country there is for the first time after many years a discussion about food sufficiency. The determinants of young farmers' success were identified through multiple logistic regression (MLR). Multiple regression analysis was performed primary in a whole sample and secondary separately for crop production, livestock production and mixed production respondents.

The findings of this study will help design appropriate policy instruments promote and foster entrepreneurship on one hand and provide suggestions for young agripreneurs to create sustainable new ventures on the other.

## KEYWORDS

Entrepreneurial success, perceived characteristics, young agripreneurs, Western Greece.

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## THE NEXUS BETWEEN ENERGY AND NATIONAL SECURITY -CASE STUDY: ROMANIA'S GREEN ENERGY POTENTIAL-

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## ABSTRACT

In order to provide people and communities with a sustainable and secure energy supply, energy independence is an essential component of modern society. Using photovoltaic (PV) panels, which turn sunlight into electricity, is one method to achieve energy independence. Since it has recently undergone tremendous development, this technology is now widely considered economical and environmentally beneficial. This study aims to assess the ability of PV panels to provide energy independence and help cut greenhouse gas emissions in Romania. We examined several variables, including effectiveness, price, scalability, and environmental impact, and discovered that PV panels could satisfy the energy needs of both residential and commercial customers. The monthly data are gathered from the National Agency for Energy Regulation from 2007 to 2022. We used quantitative econometric methods for analysis of the

data. The conclusion from the analysis is that PV panels are a viable option for achieving energy independence and a first step toward a more sustainable energy future. Romania's resources for renewable energy are the main subject of our case study, notably those related to green energy and photovoltaics. We examine the situation of the Romanian energy market and list the potential and difficulties that can be encountered in the growth of green energy. Our study assesses how Romania's use of green energy may help the nation achieve energy independence and security and how it may affect the economy and ecosystem. We can progress toward a time when energy is produced locally, reducing reliance on conventional energy sources and reducing the effects of climate change by continuing to invest in this technology. Our analysis emphasizes the significance of considering the connection between energy and national security in developing green energy. Green energy development in Romania has the potential to improve the nation's energy security, boost its economy, and lessen its environmental effect. Our findings highlight the necessity of an organized policy framework to promote the development of green energy and safeguard the nation's energy future.

#### **KEYWORDS**

Green Energy, Photovoltaic panels, Energy Supply, Electricity, Regulation

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## **DOES INSTITUTIONAL GOVERNANCE MATTER FOR CLIMATE ACTION? EVIDENCE FROM WESTERN BALKANS ECONOMIES**

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#### **ABSTRACT**

The new United Nations (UN) sustainable development (SD) agenda introduced a more comprehensive and holistic vision of SD. The ambitious agenda heralded the beginning of a new global effort for the planet's sustainability through the Sustainable Development Goals (SDGs). The SDGs represent a universal multi-dimensional integrated set of 17 goals and 169 targets, and 232 indicators whose primary purpose is to combine and fulfil the three aspects of SD, thus economy, environment, and society. They provide a framework for all countries, regardless of their income levels, to guide national planning for achieving SD. Climate change may impact almost all SDGs and vice versa, though, of the 17 SDGs, the 13th is designated to climate action. Its associated targets focus on integrating climate change measures into national policies and improving education, awareness-raising, and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warnings. The growing concern for environmental degradation has raised the question of how countries will manage to achieve SDGs and whether the answer can be found in their institutions. Reducing emissions necessitates environmental policies influenced by political institutions that shape policy adoption and implementation. This paper aims to analyse the effects of institutions adopting the dimensions of good governance on particular SDG indicators of the 13th SDG by using a panel data set of 5 European countries from 2000 to 2020. The target countries are located in the Western Balkan peninsula and share the ambition of EU accession. The four already hold the EU candidate status, Albania, the Republic of North

Macedonia, Montenegro, Serbia, and one potential candidate, Bosnia and Herzegovina. These WB transition economies are encouraged to implement the 2030 Agenda, strengthen the capacity of all relevant institutions, and improve the framework that governments and relevant stakeholders can use to progress toward the SDGs. WB countries spark our interest because of the severe institutional governance problems, which limit their ability to progress towards SDGs. The paper's empirical analysis uses a specific SDG indicator for the 13 SDG of the Europe Sustainable Development Report, similar to that used by the OECD for the report on Measuring Distance to the SDG Targets. The SDG indicators are crucial for assessing country-level progress on the SDGs, thus measuring and tracking progress on the 2030 Agenda. The analysis includes as independent variables the World Governance Indicators (WGI). Contributing to the existing literature on institutions and SD, the novelty of our approach is the use of the WGI with SDG indicators in measuring the impact of quality of governance on the progress towards the 13th SDG referring to climate action. The current study also contributes to understanding the relationship between institutional governance and climate action in the five WB countries, a group of countries that, to our knowledge, have not been incorporated in the empirical literature of the field. This paper will benefit policymakers, scholars and field students since it determines the impact of institutions precisely matched with empirical results to derive conclusive answers.

#### **KEYWORDS**

Western Balkans economies, Institutional governance, Sustainable development, climate action, environment.

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## **DYNAMICS OF A DUOPOLY GAME IN R&D EFFORTS WITH ASYMMETRIC INFORMATION**

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#### **ABSTRACT**

The present study extends Sarafopoulos, Terzopoulou 2022 (Sarafopoulos, Terzopoulou 2022, On the dynamics of a heterogeneous duopoly game in R&D efforts, Springer Proceedings in Business and Economics, forthcoming) to the case where the players of the game do not have the same information when choosing strategies. We suppose that the bounded rational player is characterized by knowing some information about the next time R&D efforts of its opponent. We examine the existence and stability of equilibria of this system. In order to show the effect of the speed of adjustment of the bounded rational player on the dynamics of the system, numerical simulations are carried out. We show that the speed of adjustment of the bounded rational player may change the stability of the Nash equilibrium and cause a structure to behave chaotically. Finally, an attempt is made to control the chaotic behavior.

#### **KEYWORDS**

Discrete dynamical system, Heterogenous expectations, Stability, Chaotic behavior, R&D

## THE NOTION OF RESILIENCE IN THE POST COVID AND DIGITALIZATION ERA: A REVIEW

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### ABSTRACT

The notion of resilience has been significantly popular after the world economic crisis and the recent covid19 pandemic. The term was initially raised in engineering and ecology, and its concept has been expanded in many fields including regional science and economics, describing the way that countries, regions, and areas react, face, and recover from the different types of crises, disturbances, and shocks. Therefore, it is considered a main element for regions in achieving sustainable development and growth. The recent covid19 pandemic, as well as the parallel strong trend of digitalization in the corporate environment, governance, research, and industry –already existing but significantly accelerated by the pandemic–, have affected the notion of resilience, in terms of definition, the way that it is measured, as well as its relationship with, and its utilization on planning and policy making. Other concepts that have also potentially affected resilience are migration, the trends of Smart Cities, United Nations Sustainable Development Goals, Circular Economy, and Tourism. All these are rising and becoming more sophisticated and complex than before. This review aims to identify how the above concepts affected: i) the definition of resilience: by modifying the core term or by creating new definitions and concepts, ii) the measurement of the resilience in an area or region: the indexes, the approaches and the methodologies applied and adjusted in the new digital or other tools that can enable a dynamic way of monitoring and controlling the development of areas, systems, production and human activities, and iii) the way that the results of defining and measuring resilience is used for decision and policy making, strategic and action planning, by the authorities and the scientists. The methodology: a first screening of literature on regional science and resilience, over the past 3 years –post covid eras performed, to identify all the different aspects existing, modified, developed, and rising upon this period and they are related to the above concepts. Then, the most relevant literature, and especially this that is related to the concepts referred, is identified, and a more detailed review is performed. The information is classified, analyzed, evaluated, and summarized. The most interesting and valuable highlights and conclusions are further elaborated and presented. The impact of the economic crisis of 2008, how the term of resilience evolved and how the tools used to define and measure it were validated, and evaluated afterwards, will also be considered.

### KEYWORDS

Sustainable Development, Resilience, Regional, Covid19, Digitalization

## READINESS ASSESSMENT OF EU COUNTRIES TO ACHIEVE THE SMART SUSTAINABLE DEVELOPMENT GOALS THROUGH THE DIGITAL TRANSFORMATION OF LOCAL GOVERNMENT

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### ABSTRACT

The transition to the digital era has become imperative in the last decades, especially after the COVID pandemic, which accelerated the need for digital transformation and growth of the digital economy. Digital transformation is a conceptual framework that is viable in an evolving society and is achieved through the adaptation of applications and services provided by the new industry 4.0. This new approach not only leads to technological achievements, but also enhances economic and social relations, as well as the bond of local governments and their citizens. According to the Sustainable Development Goals (SDGs) 2020 that were adopted in the Agenda 2030 (United Nations 2020), regional growth is considered within the framework of the Smart Sustainable Development model. It implicates the introduction of new technologies, smart management, and integrated innovations together with the participatory process of the citizens. Precisely because the policies implemented at the level of local government to achieve the goals of Sustainable Development presupposes the citizens' participation, are of particular importance. Given the fact that the services provided to citizens by local governments and that their general administrative structure and culture differ between member states due to political traditions and historical, geopolitical as well as socio-economic conditions, five main types of organization can be distinguished: the Napoleonic, the Anglo-Saxon, the Scandinavian, the Federal and the East European. The scope of this study is to assess the readiness of the different types of local governments of the member states regarding the implementation of the digital transformation of their services towards achieving the SDGs through the Smart Sustainable Development model. To achieve this scope, the goals of the study are:

1. the discussion of the concept of digital transformation
2. the description of SDGs and the Smart Sustainable Development model
3. the recording of the administration typology of local governments of the member states and finally
4. the assessment of the readiness of EU countries to proceed with the digital transformation and the adoption of the Smart Sustainable Development model in correlation to their typology.

### KEYWORDS

Local Government, Digital Transformation, Smart SDGs

## THE FAMILY AND COMMUNITY NURSE AND COMMUNITY CARE RE-ENGINEERING: DATA-INFORMED REGIONAL MANAGEMENT DECISIONS IN TUSCANY

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### ABSTRACT

Tuscany Region is divided up in three Healthcare Local Authorities (HLAs): USL Toscana Centro (USLTC), USL Toscana Nord Ovest (USLNO) and USL Toscana Sud Est (USLSE). Their catchment area is of 3 millions, and 6 thousand people distributed over a territory with great orographic variability. In 2018, before Covid pandemic, a process of territorial assistance strengthening begun. The pivotal figure was the Family and Community Nurse (FNC), characterized by a multidisciplinary, personalized, continued approach to patients, their families, and the community in general. Although Covid pandemic has moved forces towards forms of emergency organizations (e.g., Special Continuity Care Units -USCA-, Hospital-Territory intervention group -GIROT-), the re-engineering of the territorial assistance has benefited from a momentum from "NextGenerationEU", the EU's €800 billion temporary instrument to support the economic recovery and the Union. Following these lines, Italy drafted its Recovery and Resilience Plan (PNRR), that comprises a deep rethinking of healthcare functioning. One of the crucial aims is to make community care more efficient, flexible, and strong. The three LHAs resumed a path that had been interrupted, with greater determination. The regional level of government decided to conduct a fact-finding survey on the state of the art and progress of the implementation of the FNC model, questioning the different accountability levels acting within it: the Nursing Department Directors, the FNC coordinators, and the FNCs themselves throughout Tuscany. A recognition of shared aspects and variabilities returned this general picture: the some regional 946 "territorial assistance cells" (i.e., consists of an FNC and its network of counsellors, and is responsible for the care of about 3,500 people) are for the 40% urban based -the rest is classified as sub-urban and rural- and almost all were part of forms of emergency organization during the pandemic. They currently implement for the most part (88,6%) a patient's home-based assistance, care is provided in a continuous form (i.e., for chronic and multi-pathological patients) but there are also episodic-temporary types of care (e.g., completing a hospital pathway). In terms of frequency, specialized interventions by colleagues in the areas of wound care management and vascular access management are in greater demand. FNCs participate in health promotion initiatives and programs organized especially by the LHAs and by local by schools and municipalities. It is therefore data collected at the regional level that as the research progresses should inform decision makers on the state of the art of the model's implementation on the ground, to be able to make informed organizational decisions that will enable full implementation of state laws and adherence to community will.

### KEYWORDS

Family and Community Nurse, community care re-engineering, fact-finding survey, data-informed managerial decisions.

## IS THERE ANY HOPE FOR CORPORATE SUSTAINABILITY? THE EFFECT OF ALTRUISTIC VALUES ON PRO-SOCIAL BEHAVIOR

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### ABSTRACT

The imperative global demands for individual and corporate sustainability (CS) raises challenging considerations and concerns over government, public service leaders and entrepreneurs as well. As the impact of corporate and human sustainability on national economies and societies are far from settled, the literature has increasingly come to emphasize the importance of sustainable public value (SPV). Sustainable public values are addressing by various social, economic, and ecological forces, and are mediated and shaped primarily by government and public entities for achieving important social goals. However, management scholars increasingly recognize that collaboration between business and public actors is necessary for creating value and achieving social goals. Although corporate sustainability (CS) is mediated and shaped primarily by government and public entities, management scholars increasingly recognize that private organizations contribute to sustainability. This reflects that organizational decision making becomes more pro-social, but which sector (private or public) promote managers' prosocial behavior? We testify that Corporate Sustainability can encourage managers to make decisions pro-socially by increasing the likelihood that they consider the social consequences of their behavior. Our study attempts to find out to what extent Corporate Sustainability (CS) affects managers' pro-social behavior in the public and private sector respectively, and whether this depends on the extent to which managers appreciate social issues and sustainability (i.e., altruistic values ). We tested the hypothesis by using 296 managers from private and public sector of health care sector located in Greece. Our results indicate that stronger altruistic values and perceived CS are related to more self-reported managers' pro- social behavior. Interestingly, the relationship between perceived CS and self-reported pro-social behavior was stronger among those with moderate to weak altruistic values. These results imply that relative weak altruistic values are less likely to inhibit managers' pro-social behavior when managers believe that CS is integrated to their organization strategic goals.

### KEYWORDS

Corporate sustainability, altruistic values, pro-social behavior, organizational behavior, Greece



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## GLOBAL VALUE CHAIN NETWORKS: THE CASE OF US-CHINA TRADE WAR

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### ABSTRACT

This paper combines the input – output multipliers and the network analysis in the global value chains to examine the comparative impacts of the “trade war” between the USA and China. It uses the data set from WIOD (World Input Output Database) for 44 countries and 54 sectors for the period 2000-2014. The empirical findings indicate that the “trade war” USA-China might negatively affect more China than the USA. The relative position of these countries in the global value chain networks explains the less adverse effects on the USA than China since the US participation in GVCs is more significant and more diverse than China’s. Finally, the US government designed a tariff policy to directly affect the Chinese exports to the USA while the Chinese retaliatory tariffs intended to the internal political scene in the USA.

### KEYWORDS

China-US “trade war”, Global Value Chains, Tariffs, World Input-Output Multipliers, Network Analysis, Entropy

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## CHALLENGING THE AGILEFALL BUDGETING-TRAP: APPLYING THE CONTINUOUS PLANNING AND FORECASTING FRAMEWORK (CPFF)

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### ABSTRACT

In times of uncertainty, companies need to act quickly and respond to the market accordingly. Therefore, flexibility in the organization is a necessary prerequisite, whereby the budget plays a decisive role. Under the aspect of making budgeting as agile as possible, the Continuous Planning and Forecasting Framework (CPFF), from Dilger and Ploder et al. (2020) was developed. This framework proposed flexibility and at the same time shall help limiting the risk by granting room for maneuver being based on the beyond budgeting principles. A waterscrum/agilefall-led practice environment is seen as a use case for establishing the CPFF. Waterscrum/agilefall represents a mixture of waterfall- and agile software development. This paper addresses the question to what extent the framework can be implemented in such an environment. To answer the research question, a case study according to Yin (2018) was conducted, where, in addition to participant observations, the main component of information was generated from interviews with the employees of the departments under review. Continuous evaluation was performed on the one hand through constant participation in the meetings, on the other hand with targeted interviews to gather information and in the end interviews with all employees receiving a broad feedback. The agilefall-led department

faces the challenge of meeting a traditional budgeting and agile project management. Thereby, the theoretical guidelines coincide with the assessments of the manager and the employees to a large extent, which refers to the application of the beyond budgeting principles in practice. According to the results, an implementation is possible under certain limitations, whereby the development of the leadership principles and management processes on a company basis still requires action, if all of the principles and processes mentioned are to be implemented in a suitable way.

**KEYWORDS**

Agile Budgeting, Agilefall, Waterscrum, Continuous Planning and Forecasting Framework.

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**AWARENESS OF UNETHICAL ARTIFICIAL INTELLIGENCE AND ITS MITIGATION MEASURES**

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**ABSTRACT**

The infrastructure of the Internet is based on algorithms that enable the use of search engines, social networks, and much more. Algorithms themselves may vary in functionality, but many of them have the potential to reinforce, accentuate, and systematize age-old prejudices, biases, and implicit assumptions of society. Awareness of algorithms thus becomes an issue of agency, public life, and democracy. Nonetheless, as research showed, people are lacking algorithm awareness.

Therefore, this paper aims to investigate the extent to which people are aware of unethical artificial intelligence and what actions they can take against it (mitigation measures). A survey addressing these factors collected 291 valid responses. To examine the data and the relationship between the constructs in the model, partial least square structural modeling (PLS-SEM) was applied using the Smart PLS 3 tool. The empirical results demonstrate that awareness of mitigation measures is influenced by the self-efficacy of the user. However, trust in the algorithmic platform has no significant influence. In addition, the explainability of an algorithmic platform has a significant influence on the user's self-efficacy and should therefore be considered when setting up the platform.

The most frequently mentioned mitigation measures by survey participants are laws and regulations, various types of algorithm audits, and education and training. This work thus provides new empirical insights for researchers and practitioners in the field of ethical artificial intelligence (AI).

**KEYWORDS**

Artificial Intelligence, Biased Artificial Intelligence, Algorithmic Fairness, IT-Audit, Ethical AI.

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## AN ORGANIZATIONS STRATEGIC ORIENTATION, ATTITUDE TOWARDS ENTERPRISE RISK MANAGEMENT AND THE IMPACT ON FIRM PERFORMANCE

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### ABSTRACT

This paper aims to examine the moderating role of Enterprise Risk Management (ERM) on the effects of strategic orientation and organizational performance. The first section reviews the topics of strategic orientation and ERM using a comprehensive literature review. The second part of the paper explains the scientific approach and quantitative research method, including the selected target group, hypothesis formation, and questionnaire distribution and operationalization. The questionnaire collected 77 data sets, which were analyzed using the IBM SPSS Statistics software. The questionnaire items allowed measuring the degree of ERM intensity and the respective strategic orientation as separate factors. For strategic orientation, the Miles and Snow framework was used to categorize companies. A regression analysis was conducted, which showed a positive relationship between organizational performance and the respective "Prospector," "Defender," and "Analyzer" strategies. The "Reactor" type regression analysis showed no significant effect. Based on literature, ERM activities are expected to positively influence strategic orientation and organizational performance. This hypothesis was tested using moderation analysis, but no moderation by ERM could be demonstrated in the data evaluation. This result can be attributed to the broad participant group with different strategic orientations. For future research, which also deals with the role of ERM in relation to strategy and organizational performance, it is recommended to narrow down the target group, use more "proactive" companies in the same business environment, and include more non-financial performance indicators in the analysis.

### KEYWORDS

Enterprise Risk Management, Strategic Orientation, Organisational Performance.

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## CURRENT CRISES AND SUSTAINABLE DEVELOPMENT GOALS – A REGIONAL APPROACH

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### ABSTRACT

Crises are by definition unexpected, despite the warning signs that sometimes appear like the case of climate change, that has become progressively noticeable. Crises' forms vary depending on their main cause, length, severity and extent. Each crisis has unique characteristics which upon analysis, can be developed into practical implications of either general or specific apply. Being majorly unpredictable and future uncertain, crises will continue to evolve and transform

along with the evolution of society, industries, and technology. At the same time, they generate opportunities that may be beneficial for social change and economic recovery, if not growth. Heading towards full recovery from the Covid-19 pandemic crisis, new crises pose major threats to the Sustainable Development Goals (SDGs). The Russia–Ukraine ongoing conflict is causing immense suffering, humanitarian crisis (world’s largest modern displacement crisis) and economic shock with disrupted supply chains and global trade. Meanwhile, climate emergencies, natural disasters, geopolitical rivalries and socioeconomic inequalities, make it increasingly difficult for Europe to maintain its focus on SDGs’ targets and timelines. This paper aims to provide a holistic understanding of the current crises’ impact on the progress of SDGs, in a European approach through an overview that reflects the context of how the European region is affected by these challenges; and how the efforts on building more effective policies and directives may act catalytically. Therefore, recently published papers and reports are analysed in relation to the effects of how these goals can contribute with appropriate management practices towards recovery.

**KEYWORDS**

Sustainable Development Goals, Current Crises, SDGs, Sustainability

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**EU INTEGRATION AND THE MONOPOLY OF LEGITIMATE VIOLENCE**

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**ABSTRACT**

EU member states have since the 1950s started pooling sovereignty in sectors of production; a push that has created a process of integration across borders in premises of state authority, national areas of social activities, and individual spheres of everyday life. This transformation process is historically unique. One critical dimension is that it has so far kept going without the use or the threat of the use of military force ever being made. This explains, in part, why European integration is called a peace project. Another crucial dimension is that the EU is evolving, through and by this process, into a unional decision-making-and-taking space in which an array of its member-state competencies have been transferred. The EU today appears to intrude the core of state sovereignty having co-shared or taken a rising number of the functions of the state but without possessing the monopoly of legitimate violence; which is arguably the most fundamental attribute of the state. While the EU lacks monopoly over violence and coercion, it is striving to regulate the ‘rules of the game’ in its unional space; that is, to command and control activities on its own by constraining and dislocating member-state powers to enable and enforce EU unional authority and interests. Against the backdrop of historical record, this “invisible sovereignty” is exceptionally paradoxical. In fact, it is a contradiction that results in multiple crises and conflicting arrangements within the Union. Building on literature providing an abundance of analytical categories and approaches to the EU, the paper discusses through the lens of the concept of the monopoly of legitimate violence the dynamics and prospects of integration in the EU.

**KEYWORDS**

European integration, Sovereignty, Monopoly of Violence, EU unional Authority

## EXPLORING THE POTENTIAL OF 3D PRINTING TO BECOME AN INNOVATIVE PRODUCTION MODEL, PROMOTING SUSTAINABLE DEVELOPMENT. A REVIEW OF THE KEY FACTORS AFFECTING ITS ENVIRONMENTAL IMPACT

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### ABSTRACT

Nowadays, in this volatile post-Covid era, there is an urgent need to develop new production models, based on the triangle of environment, innovation, and competitiveness. The role of industrial production is crucial as it strengthens the EU economic resilience, while contributing to the achievement of improved social well-being. 3D printing is an expanding additive manufacturing technology with many applications in various industrial sectors. It involves the layer-by-layer fabrication of products through a CAD model or a 3D scanner output. The integration of 3D printing into the production process is increasingly attracting the interest of stakeholders. 3D printing technology provides access and participation in the production process to both producers and end-consumers. Despite the multitude of challenges, 3D printing is gaining ground, allowing sustainable development and paving the way for innovative production. The environmental footprint of the production process is determined by the choice of manufacturing method and raw materials, the carbon emissions, the energy consumption, and the transportation process. The question raised is whether 3D printing technology contributes to environmental footprint reduction and circular economy development, aiming for sustainable industrialization and resilient infrastructures. Is 3D printing able to contribute to an eco-friendlier production process with less pollution and greater sustainability? What applies so far and how does it respond to the new environmental challenges in relation to conventional production models? Which are the 3D printing options that influence the environmental footprint of production? This paper makes an important contribution to the growing area of research on the impact of additive manufacturing, identifying and categorizing the factors that affect the sustainability and the environmental impact of production through 3D printing. The methodology of this work assists to the categorization of factors related to the 3D printing technology and process settings and those related to the supply chain and logistics. For each category, a case study is presented to describe and clarify the literature references. The goal of this review is to investigate whether 3D printing is already or could be a better and more reliable production procedure in the near future, in line with the 17 United Nation Sustainable Development Goals of the Agenda 2030.

### KEYWORDS

3D Printing, Production model, Environmental Impact, Sustainable Development Goals.

## YOUNG HUNGARIANS AND THE EU: AN ANALYSIS OF CHANGES IN YOUNG HUNGARIANS' RELATIONSHIP TOWARDS THE EU, 2000-2020

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### ABSTRACT

Following the European Union's waves of expansion after 2003, the rejection of the draft treaty establishing a constitution for Europe, the migration crisis, Brexit, the coronavirus pandemic and Russia's aggression against Ukraine, the question arises as to how attached its citizens feel to the European Union and how national attitudes developed towards it during the vicissitudes of the past decades? Since the inclusion of identity issues requires prudent methodological considerations, little research based on empirical investigation has been published on the topic until now. The present paper seeks to identify the external and internal factors that have determined the attitude of Hungarian youth towards the European Union and Hungary's EU membership in recent decades from a sociological approach. We examine how the EU's youth policy objectives developed between 2000 and 2020, together with the youth policy projects realized with the help of cohesion funds allocated to Hungary. In parallel with this, we outline the communication and agenda of Hungary's leading political parties in relation to the assertion of interests in the EU within the examined period. Chief milestones are compared with the most important sociological findings of public opinion polls covering youth that examined citizens' attitudes towards the EU in the above time frame. Over the past two decades, large-sample youth surveys have been conducted every four years, the results of which create an opportunity to present trends in young Hungarians' attitude towards the EU. Quantifiable results of our research combining a sociological and political science approach point to correlations between the number and scale of youth policy projects implemented in Hungary with EU (co-)financing and perception of the EU among Hungarian youth. Qualitative conclusions draw attention to possible effects of European political crises taking place during the first two decades of the new millennium in relation to young Hungarians' view of the EU. The two latest data collections (2016 and 2020) provide insight into other important aspects of the topic. In addition to the 8,000-member sample of respondents aged 15-29 living in Hungary, the total item number of 12,000 included 4,000 young Hungarians living in neighboring countries, meaning that their perceptions of the EU are comparable with those living within Hungary. Finally, instructive conclusions can be drawn from samplings from 2000 and 2020. Beyond the relationship with the European Union, the aforementioned surveys also asked about young Hungarians' perception of NATO, making it possible to compare the image of the two international organizations and changes occurring within the 20-year period.

### KEYWORDS

European Union, NATO, youth survey, international organizations, Hungarian youth

## NEW MEDICAL SPECIALTIES. ECONOMIC AND MANAGERIAL IMPLICATIONS

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### ABSTRACT

The purpose of the paper is to discuss the economic and managerial implications of the tendency of splitting medical specialties in new narrower specialties, restricted to only a part of the previous more comprehensive medical specialty. The types of medical specialties and the emergence of new specialties was analyzed in terms of originating a new specialty, chronology, number of doctors included, samples of geographical distribution, scientific content and the relationship with original specialty, training. Incidence and prevalence of diseases pertaining to the new specialties was also analyzed. An economic analysis pertaining supply and demand of services provided by this specialties, types of markets for these, prices, the relationship with original specialty from economic perspective. Factors inducing this trend were discussed. From the managerial perspective, access to care and integration of services were analyzed as well as costs for training of these specialists. Data was gathered from Health for All Data Base of WHO, Ministry of Health, Romanian College of Physicians, Bucharest College of Physicians, National Society for Family Medicine, and others. Besides data analysis, structured interviews were used. It seems that the emergence of new narrow specialties derived from older more comprehensive ones reduces access to care. Another outcome resulted from the emergence of new specialties is that, especially for old patients, integrating treatment issued by various specialists becomes more difficult. The research was limited by lack of comprehensive data, and availability of stakeholders to be interviewed. The research provides a clearer view about this phenomenon, which so far seems to be developing unrestricted. The research provides support to restructuring the delivery of care by designing new strategies and policies aimed at improving access to care as well as integration of services with implications on reducing costs of care. The research opens the discussion on the development of supply of health care services, providing new perspectives towards improving access to care and integration of health care services, especially treatments.

### KEYWORDS

New medical specialties, access to care, integration of medical services.

## **BUILDING A SMARTER GOVERNMENT USING MACHINE LEARNING APPLICATIONS: BENEFITS AND CHALLENGES**

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### **ABSTRACT**

This paper aims to investigate the benefits and the challenges of the utilization of Machine Learning (ML) applications in public administration. ML assists in fraud detection by uncovering fraudulent activity in areas like welfare, tax, and healthcare. In public safety, crime data analysis helps allocate resources and prevents crime. For disaster response, information is evaluated, and the speed and efficiency of public administration's actions are improved. In the criminal justice system, bias in decision-making can be limited. Transportation also benefits from ML by optimizing traffic flow, reducing congestion, and improving mobility. Healthcare sees improvement through analysis of patient data and prediction of disease outbreaks. Chatbots and virtual assistants can offer citizens fast and efficient service, reducing wait times and increasing satisfaction. ML also helps in environmental protection by monitoring and predicting changes in the natural environment to mitigate climate change. Smart city management also utilizes ML to analyze data in order to improve the quality of life. The importance of ML applications to the revolutionization of public administration and the enhancement of the quality of provided services is discussed. As the volume of data available to government organizations continues to grow, ML play a crucial role in extracting useful insights. ML can be used to analyze big data and identify patterns and trends that may not be easily discernible by human analysts, providing valuable knowledge that can be used to improve decision making, leading to more informed and effective choices. The potentials of ML applications in the significant improvement of the efficiency and effectiveness of public administration and government operations is also discussed. Additionally, machine learning can automate many tasks, freeing up public sector employees to focus on higher-level, strategic work. This can result in cost savings, improved service delivery, and increased transparency and accountability. ML can also help the public sector to better allocate resources, such as manpower and funding, by providing insights into where they are needed most. In the following, the challenges of the utilization of ML applications into government operations are addressed. One of the biggest challenges is ensuring the accuracy and fairness of ML algorithms in general. This is particularly important in the public sector, where decisions made by ML systems can have significant impacts on citizens' lives. There are also concerns about the ethical implications, particularly in regard to data privacy. Ensuring that ML systems are designed and used in an ethical and responsible manner is critical in building public trust. Another challenge associated with ML applications in public administration is the need for investment in technology and personnel. Integrating these technologies into existing government systems can be complex and time-consuming, and may require significant investments in hardware, software, and human resources. There are also questions concerning transparency and accountability, as decisions made by ML algorithms may not always be easily explainable. Moreover, ML



systems should be secure and protected against cyber threats, especially when they are used to process sensitive information.

**KEYWORDS**

Machine Learning, e-Government, public administration, big data, chatbots.

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**DOES THE REIMBURSEMENT SYSTEM REFLECT  
THE ACTUAL COST OF PUBLIC HOSPITALS? A CASE STUDY  
OF A GREEK PUBLIC HOSPITAL ICU**

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**ABSTRACT**

The goal of the present research is the evaluation of the real cost of an Intensive Care Unit (ICU), one of the largest tertiary hospitals in Greece, and to make a comparison to the corresponding revenues that came from the pricing according to the Uniform Regulation of Health Services (EKPY) of the National Organization for the Provision of Health Services (EOPYY). The comparison of data is from the years 2019-2021, so as to evaluate the effects of the COVID-19 pandemic on ICU costs. According to EKPY, the pricing system of Greek public hospitals is based on the Closed Consolidated Hospitalization (KEN), which is a simplified version of the internationally acclaimed Diagnosis Related Groups (DRGs). The bibliography has shown the problem of non-correspondence between the real cost of health services and the cost by which hospitals are reimbursed. This inconsistency, based on our research, is present in the ICUs as well, which absorb a large number of a hospital's expenses as their operation requires very accurate specifications. In order to estimate the real cost, the micro-costing model was used. From the analysis of the cost data, it was found that the daily cost of an ICU in 2019 greatly falls behind the daily reimbursement based on the KEN. Additionally, it is even higher during the next 2 years when the emergence of COVID-19 skyrocketed both the need for ICU hospitalization and its daily cost, without adjusting the daily reimbursement. In order to apply the model of micro-costing and to evaluate the real cost there should be a cost monitoring system for the fluctuations of the necessary cost data in public hospitals. The introduction of a new accounting system in the public sector, which incorporates the International Public Sector Accounting Standards (IPSAS), the European Systems of Accounts (ESA 2010) as well as the functional classifications of accounts by which the sectors of cost data will be defined according to the COFOG (Classification of the Functions of Government) will give the possibility to monitor all the necessary cost data so as the micro-costing model can be applied, which will lead to the estimation of the actual cost.

**KEYWORDS**

Costing Public Health Units, Intensive Care Units (ICU), reimbursement system, Diagnosis Related Groups (DRGs), micro-costing model, health economics.

## **A MICRO ECONOMIC ANALYSIS OF THE ROMANIAN ONLINE ADVERTISING MARKET – TOWARDS MORE FAIR VALUE SHARING?**

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### **ABSTRACT**

The Romanian online advertising market has been growing recently at a rapid pace and has adopted the main technological advancements from more mature markets. Our analysis explores whether Romania's online advertising market structure could provide a ripe field for potential abuses of dominant position from players wielding high market power. Such cases are currently the object of legal inquiry from the European Commission's antitrust watchdog. This paper examines all of the three components of the supply chain - the advertisers, the publishers, and the advertising intermediation companies - inquiring into the degree of market concentration of each one. A particular focus is placed on the role of advertising intermediation (AdTech) companies and whether the technology they provide could offer them some undue advantages. The research uses data collected in the past 15 years by the main Romanian industry associations, which gives us insight into the workings of the both ends of the market: the advertisers through which the demand is manifesting, and the publishers who represent the supply side. In addition to this, we have also studied the media buying algorithms used by these companies, in order to better understand their influence on the market's functioning. For each of stated market components we have calculated the degree of market concentration. The findings show that the Romanian online advertising market is a highly concentrated one, especially for the ad intermediation component, which is effectively composed of a duopoly. Further studies are needed in order to better understand how this market dominance affects the functioning of Romania's online advertising market.

### **KEYWORDS**

Online advertising, digital advertising, programmatic advertising, online marketing, digital marketing.

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## **BANKING SECTOR RESILIENCE: DETERMINANTS OF NPL RATIO FOR EU MEMBERS WITHIN SSM**

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### **ABSTRACT**

The resilience of the banking sector is critical for the stability of the economy. The non-performing loan (NPL) ratio is an essential indicator of banking resilience, and understanding its determinants is crucial for policymakers and financial institutions. This study aims to improve the understanding of the determinants of the non-performing loan (NPL) ratio for EU members under the Single Supervisory Mechanism (SSM). The analysis utilizes data from 2015 to 2021 with quarterly frequency and considers both systemic and idiosyncratic factors. In addition, the study proposes the integration of a size factor based on quarterly data related to exposure at default (EAD) for financial institutions classified as large, medium, or small, as defined by the European Central Bank (ECB) under the FINREP framework. The findings of this

study are a valuable addition to the extensive empirical literature that explores the relationship between macroeconomic performance and credit market frictions, specifically the increase in non-performing loans (NPLs). Furthermore, while many financial institutions incorporate macroeconomic data into their credit risk models, this study highlights the importance of also considering bank-specific factors, such as size, when assessing the risk of non-performing loans and helps develop a more comprehensive understanding of the determinants of the NPL ratio and better manage the risks associated with credit lending.

#### KEYWORDS

Non-performing loans, SSM, EAD, Default.

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## GOVERNANCE OF MIGRATION TRENDS AND ECONOMIC GROWTH, DEVELOPMENTS IN THE 21ST CENTURY

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#### ABSTRACT

Migration as a social phenomenon is deterministic, obeys the fundamental laws of socio-historical development, production, joint venture, and the social division of labour. It is an objectively progressive process, in this respect, as a manifestation of the above laws. Migration is a general phenomenon, with complex emerging nature and impact. With a higher or lower degree of development trend, time and place, the law of motion of the population is not the same everywhere and always, for all eras and all the places. Expands and eliminates government restrictions within and across borders, changing the form of states, regions, and the whole world. It is the expression of overall-general law of concentration of social production, in which lies the objective basis of the phenomenon, as manifested in the slave, feudal and bourgeois society. It is also noted that is manifestation of the dialectic between the strategy and the geostrategic sphere of global economy and the homonymous community. A careful and penetrating review of the global situation today testifies to the objective fact that the immediately preceding major realities are those that form the cultural, economic, and social context of movement of the productive forces. Migration is the effect of broader development processes, which move dialectically with globalization and moves correspondingly, as an intrinsic growing element of objective character. It is the link between the national and international elements due to the dual nature, the national-domestic and international-global. The official progressive science and sociology also helped in the prevalence of the perception that the first right of potential migrant is the most fundamental theory of human rights. It was considered as the "the first and the most fundamental of man's liberties" the right of personal self-determination an indispensable condition for the free development of a person. Migration movements can have both positive and negative effects on the economy of the countries involved. In this article we investigate the Labor market impacts. Migration can increase the supply of labor in destination countries, which can lead to lower wages for some workers in certain industries. However, it can also fill labor shortages in other sectors, leading to higher productivity and economic growth. Consumption and demand: Migration can increase demand for goods and services in destination countries,

leading to higher economic growth. Migrants may also bring new skills and knowledge that can drive innovation and economic diversification. Especially, we investigate governance of migration trends. Effective governance of migration trends requires a comprehensive and coordinated approach that involves multiple stakeholders, including governments, civil society, and international organizations. This involves developing and implementing policies that balance the economic and social benefits of migration with the need to protect the rights of migrants and host communities. Governance of migration trends involves several key elements, including institutional regulation. Overall, governance of migration trends requires a comprehensive and coordinated approach that balances the needs of migrants and host communities while also addressing the challenges associated with irregular migration.

#### **KEYWORDS**

Governance, migration, labor, institutions, growth

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## **ASSESSING THE ROLE OF FINTECH IN SUSTAINING FINANCIAL INCLUSION**

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#### **ABSTRACT**

In recent years, the issue of financial inclusion occupies a priority place in the work agenda of decision-makers, both at the national, European and international level due to its crucial role in the economic development of a country. Financial inclusion refers, in particular, to increasing the access of individuals or small businesses to a wide range of financial products and services, but also to increasing the degree of their utilisation. The events of the last decade have had significant effects on individuals but also on enterprises worldwide. In this context, financial inclusion has become a pressing and necessary problem to be addressed. FinTech represents the financial technology (like software, mobile applications, and others) that can improve the traditional forms of finance for businesses and consumers. In the context generated by the Covid-19 pandemic, in March 2021, the European Commission adopted a program focused on the digital transformation of the EU, which establishes a vision and objectives to promote the use of information technology in the EU until 2030. The strategy aimed to establish the program of policy "The Path to the Digital Decade", which establishes the governance framework for achieving the digital objectives for 2030. These actions have drawn even more attention to FinTech and its effects on the various stakeholders. From the perspective of financial inclusion, the rapid development of FinTech has led to the intensification of the concerns of researchers and decision-makers at different levels to examine to what extent the development of financial technology could contribute to increased financial inclusion. In this context, our paper aims to analyse developments in the field of FinTech and financial inclusion in the case of some countries in the Balkan and Eastern European regions. In addition, we aim to assess how the use of financial technologies could sustain and promote the financial inclusion in the case of the countries included in the analysis. For the empirical investigation we use panel data regression

models. For measuring the financial inclusion, we consider three alternative variables, that are included in turn as dependent variables of our model. As independent variables, we use a set of indicators expressing FinTech. The data for performing the analysis covers the period 2011-2021 and is obtained from the World Bank Global Financial Inclusion (Global Findex) database, but also from the International Monetary Fund Financial Access Survey. The results obtained point out that FinTech can be seen as a significant driver of financial inclusion. In addition, we note that the development of FinTech and its role in supporting financial inclusion would have accelerated in the context of the COVID-19 pandemic. Overall, our research underlines the need to develop the Fintech sector in the analysed countries in such a way as to contribute to the stimulation of financial inclusion.

#### KEYWORDS

Financial technology (Fintech), digital financial services, financial inclusion, Balkan and Eastern European regions.

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## EXPLORING INTERNATIONAL RETAILERS' PERFORMANCE IN THE EUROPEAN UNION

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#### ABSTRACT

There are about 3.5 million retail businesses across Europe, among which SMEs as well as global leaders. In terms of employment, retail employs about 20 million of Europeans, constantly creating jobs across Europe. Retailers offer apprenticeships in several European countries, entry jobs, as well as upskilling and reskilling opportunities for professional development. However, the performance of the retail sector varies among EU countries, from the turnover growth rate to the labor force employed. In recent years, the Covid-19 pandemic and the digital transformation as well as the changing consumer behavior (some consumers are looking for a way to save money, some focus on health and sustainability, more than half are shopping omnichannel, although there are differences between countries and categories) challenge retailers to stay relevant. Thus, research on the local performance in host countries is important, because the political and/or economic environment in certain host countries can change significantly affecting performance. In this context, the aim of this paper is to detect patterns of performance among EU retailers, using statistical cluster analysis based on ten indicators that cover all areas of business performance - liquidity, solvency, efficiency, profitability, and aggregate performance. The data was extracted from ORBIS/Amadeus - TP Catalyst database. K-means statistical algorithm will be used to find homogeneous groups of retailers that are as dissimilar as possible from each other, and the machine-learning based random forests classification (Breiman, 2011) to reveal the most important drivers behind the performance of retailers included in different clusters.

#### KEYWORDS

Retail, performance, host countries, patterns, statistical analysis.

## **BUSINESS MODELS FOR ADVANCED AIR MOBILITY. A NEW FRONTIER FOR SUSTAINABLE AVIATION**

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### **ABSTRACT**

Advanced Air Mobility (AAM) is expected to take off in the second half of this decade with the aim to revolutionize passenger transportation. This new form of transportation uses electric vertical takeoff and landing vehicles (eVTOLs)— small, battery-powered aircraft that can transport passengers and cargo—for a range of urban and regional transportation use cases, including commuting, airport taxi services, and medical transport. Fast, clean, and expected to be comparable in price to black-car taxi services when operating at scale, AAM is poised to transform how people move across and between cities. While technological and certification progress towards AAM receives high attention, relevant business models for the deployment of these increasingly sophisticated passenger-carrying air vehicles for urban applications get less attention. Until now, the nascent AAM industry has primarily focused on developing and certifying eVTOL vehicles. With entry into service approaching, however, companies across the AAM ecosystem should begun shifting attention to air mobility operations, including the new digital platforms and the required business models that will enable this ecosystem to elevate. These digital platforms and the associated business models will touch all parts of operations and customer experience, and there will be significant value at stake for players, including OEMs and operators, who can use these platforms to play an orchestrator role within the broader AAM ecosystem. This ecosystem will include not just the direct eVTOL flight operations but many other applications, including those for orchestration of intermodal trips, predictive maintenance, and regulatory interactions. While AAM is still not a reality, several organizations are making great strides to make this technology possible and introduce environmentally friendly vehicles to cities. Although still not operational, AAM is one of the disruptive, environmental friendly and sustainable innovations that can drive social transformation. As with any new sector, the landscape is evolving rapidly. Currently the total disclosed investment in AAM start-ups exceeding \$15 billion through the first ten months of 2022. If governments begin certifying AAM passenger travel starting in 2025 as expected, eVTOL entry into service could occur in the mid to late 2020s, which further raises the flag for operational business models to be in place. This article explores how AAM operations will require new digital platforms that differ significantly from those of traditional aviation, as well as the issues that companies must consider when developing the different business models that will operationalize these platforms. These rather innovative implementation concepts unlock the space for an openminded discussion on business models for Advanced Air Mobility.

### **KEYWORDS**

Advanced Air Mobility, Sustainability, Business Models, Aviation.

## DEALING WITH PRECISION AGRICULTURE TECHNOLOGIES: DETERMINING COMPETENCIES AND TRAINING NEEDS OF FARMERS AND RESEARCHERS

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### ABSTRACT

The introduction of precision agriculture technologies in agrifood systems generates the need for efficient upskilling programs targeted at farmers and other actors involved in the transition toward digital agriculture. A critical first step in this direction is the identification of the knowledge deficits of the actors involved in the new ecosystems that precision agriculture technologies create. The present study aimed to assess the training needs and gaps in competencies related to precision agriculture technologies of Greek livestock farmers and researchers specialized in this field. For farmers, we followed a partially mixed concurrent equal status research design involving qualitative and quantitative analysis. To identify participants' perceptions of their knowledge and competencies in precision agriculture, we used both open- and closed-ended questions. To analyze quantitative data, we used central tendency statistics, while qualitative data were subjected to conventional content analysis. To uncover researchers' training needs, we chose a purely qualitative approach, focused on five dimensions derived from the relevant literature, namely their ability to assess farmers' problems and needs, estimate the compatibility of precision agriculture technologies to different types of farming, reflect on the impacts of digitalization, envision the future of farming, and promote the responsible exploitation of precision agriculture technologies. After data collection, we performed a directed content analysis. The results revealed that farmers lack competencies related to the exploitation of precision agriculture technologies, also stressing the need to enhance not only their "technocentric" skills, referring to the value extraction from technology, but also their generic agri-entrepreneurial competencies and capacities to anticipate and design the future of their enterprises. Our qualitative findings indicate that, although farmers consider knowledge as an essential element of a "good" farmer's identity, they are critical towards the ability of the Greek agricultural knowledge and innovation system to provide competence development opportunities. Researchers, on the other hand, depending on their area of expertise, prioritized different training needs. These include the development of competencies in predicting how research affects the future of farming and farmers' well-being; understanding how precision agriculture artifacts interplay with social, environmental, and economic factors, thus promoting a paradigmatic shift of current agricultural systems; building functional schemes for promoting the responsible exploitation of precision agriculture technologies; assessing the compatibility

of precision agriculture with different types of farming. To construct competencies, researchers propose a variety of strategies, ranging from involvement in innovative research projects to the development of knowledge alliances among academia, private companies, and farmers. Our results indicate that precision agriculture is knowledge-intensive and requires a continuous supply of farmers with competencies and skills. Beyond technology-oriented competencies, enhancing the capacity of both producers and researchers to foresight potential futures and shape through their actions transitions toward sustainable agrifood systems is essential. In addition, promoting knowledge co-creation networks that link academic knowledge with farm practice can facilitate the amalgamation of different types of knowledge and expertise, thus boosting the potential of precision agriculture.

#### **KEYWORDS**

Digital agriculture, precision agriculture, competencies, training needs, skills, farmers.

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## **CORRUPTION EVOLUTION IN THE LAST DECADE AND THE IMPACT ON PUBLIC INSTITUTIONS**

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#### **ABSTRACT**

Over time, a systemic view of corruption developed, with early modern literature characterizing this phenomenon as a dysfunctional element, rooted in institutions, people's behavior and their habits, manifesting itself in different ways, such as bribery, embezzlement, fraud, nepotism, undue influence, with the aim of gaining private resources against the common good. Mostly, corruption affects people's confidence in public institutions, undermines the sense of justice, and the quality of public administration is generally questioned. Corruption can be understood by referring to different contexts, starting from the situation of a multinational company offering a bribe for the award of an important contract to build a public road despite promoting a bid below market standards, from the case of politicians redirecting public funds to self-interest areas, depriving parts of society that really need that money of funding, up to the manager of the public institution who places various close ones in key positions, or up to the situation of the first-line civil servant who collects inappropriate benefits from ordinary citizens for the provision of basic services, with the result that vulnerable people are most affected by corruption. Therefore, this paper presents a comprehensive review of the causes of corruption and how the management of public institutions is affected by this phenomenon. In this study the information collected from OECD, Transparency International Index, Global Corruption Barometer and from romanian judicial system was analyzed, the result indicating an increase in the incidence of the phenomenon of corruption by up to 65% compared to the last decade, bribery being one of the most widespread forms of manifestation, with an increased incidence especially in the area of Eastern Europe. Also, a bibliometric approach was made to highlight the relationship between corruption acts and public institutions, and to provide valuable information and extended knowledge to industry practitioners and policymakers.

#### **KEYWORDS**

Corruption, Romanian public system, Integrity.



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## CLLOUD GOVERNANCE IN EUROPEAN UNION UNLOCKING THE POWER OF DATA IN THE DIGITAL ECONOMY

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### ABSTRACT

The unprecedented increase of activity in the digital domain, which was significantly developed during the pandemic, made clear that the new environment should be carefully regulated. In the advent of the global health crisis, several policy and regulatory initiatives are adopted by the EU in relation to the evolution of cloud computing as means of innovation, economic growth and digital sovereignty. The pivotal transition of economic and societal activities to cloud computing services created numerous policy and legal issues that derive from the fact that non European cloud service providers dominate the cloud market. In response to developments EU faces the enormous challenge to increase its presence on the market, cloud uptake and boost user confidence by facilitating access and use of Cloud computing infrastructure and services through a new set of EU rules.

### KEYWORDS

Cloud Computing, Cyber-Security, European Union, Data Economy, Cybersecurity, EU Regulation, Data Protection, Gaia-x, Data Spaces

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## THE DISCLOSURE OF FINANCIAL AND NONFINANCIAL INFORMATION OF LARGE ENTERPRISES

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### ABSTRACT

The purpose of this study is to examine the financial and non-financial information provided by large companies in Greece. As the world continues to grapple with the effects of climate change and social inequality, the need for increased transparency in the financial sector is becoming more urgent. Companies, large and small, are now legally required to provide non-financial information in their annual reports, with the goal of providing investors, employees, and the general public with a more complete picture of the development, efficiency, status and environmental and social impacts of their activities. Non-financial reporting is a legal requirement that some jurisdictions are changing from a voluntary element of Corporate Social Responsibility (CSR) to a true requirement with extra-territorial reach. Financial market regulators and stock exchanges across the world have issued guidance and/or requirements on non-financial reporting for listed companies, and the information must be posted online on the business's website. Non-financial information should include environmental, social, and human resource issues, respect for human rights and the fight against corruption and bribery, and may be published in numerous forms, either as part of the annual report or entirely separately. For this purpose, a survey was initially carried out in 50 Greek companies, using

a questionnaire, in order to examine whether the companies proceed with the publication of financial and non-financial information and what information they disclose to the interested parties. Then, the main questions asked are aimed at the framework for compliance or non-compliance with the regulatory framework governing the disclosure of their financial and non-financial information, as well as whether there are sufficient explanations for the non-disclosure of this information. In addition, the study explores the factors that contribute to both companies' information avoidance and their persistent delay practices. The findings showed that the provision of non-financial information is often limited to specific information. Consequently, this study reveals that companies, based on some ambiguities of the regulatory framework, do not publish all information to the public, while using tools of the law to protect themselves from this tactic. Finally, it is necessary to extend to all large companies the mandatory disclosure of all information affecting interested parties.

**KEYWORDS**

Financial information, non-financial information, Corporate Social Responsibility (CSR), investors.

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**THE IMPACT OF COVID-19 IN TOURISM**

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**ABSTRACT**

During the years 2020 and 2021, COVID-19 has affected individuals' lives. Beyond the enormous human suffering and tens of thousands of deaths caused by the unprecedented pandemic of COVID-19, has a huge economic impact which in turn has led to a vertical reduction in travel and tourist traffic around the world. Significant impacts of COVID-19 have been observed on tourists, businesses, governments, and tourism destinations. In terms of tourism supply, tourism businesses have tried a lot to be accurate in their obligations. Due to the general difficult situation of the pandemic, governments and destinations acted and decided for preventive measures. Research about the impact of COVID-19 in Greece showed that according to Zouni (2020), businesses seemed to be more optimistic than tourists, although their opinions converge on several points. Regarding the expectations of Greek hoteliers in terms of the impact of COVID-19, in line with the research by the Tourism Department of Ionian University, the main conclusion was that the majority of the hoteliers in Greece think of the pandemic duration. Innovation implementation and flexibility are the key issues for the hospitality industry. Businesses that adapt to new circumstances is possible to be keen on a certain extent or high degree of innovation.

**KEYWORDS**

Covid-19, tourism, impact, Greece

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## PROMOTING THE CONCEPT OF VIABILITY IN AGRI-FOOD SUPPLY CHAINS

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### ABSTRACT

The function of agri-food supply chain systems has been studied regarding their economic, environmental, and social impact. The modern world crises have fostered the need to turn to new ways of food production and consumption. The rapid adaptation, and the reconfiguration of processes and structures, is necessary in response to unpredictable disruptions of the supply chain. Sustainability and resilience have been proposed as the most promising approaches for dealing with the occurring disruptions. Both concepts focus on the ways in which supply chains should modify their functions in order to sufficiently respond to external or internal disturbances. Through these transitions, supply chain systems aim to overcome the current barriers and form defensive and recovery mechanisms against similar future threats. Although the shape of resistance and recovery frameworks is necessary, supply chains also need to reconfigure their long-term strategies in order to support their place in the market and preserve competitive advantage. In these terms, the recently proposed concept of viability comes to reset the goals of the supply chain systems, aiming to ensure the long-term effectiveness of the measures taken while dealing with a crisis. This paper aims to define the concept of viability in the context of agri-food supply chains and propose interventions and ways of adoption for the existing supply chain systems. In addition, the role and the contribution of various stakeholders is outlined towards this end.

### KEYWORDS

Agri-food supply chains, disruptions, resilience, sustainability, viability

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## CHALLENGES AND OPPORTUNITIES FOR FOREIGN DIRECT INVESTMENT IN IN THE EU SINGLE MARKET: THE IMPACT OF STATE AID RULES ON TAX RULINGS AND RECENT ECJ DECISIONS.

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### ABSTRACT

This paper examines the impact of EU Law, namely State aid rules applied on tax rulings and recent decision of the ECG on foreign direct investment (FDI) in the Single Market. The EU's competition policy is designed to promote fair and open competition in the Single market, including by preventing distortions of competition caused by State aid measures such as tax rulings that provide selective advantages to companies or sectors. FDI plays an important role in the Single market. Recent ECJ case law, such as those in the Apple case and the FIAT case have clarified the application of EU State aid rules in the context of tax rulings, highlighting the need for Member States to ensure compliance with these rules in order to avoid adverse effects on

FDI. At the same time the proposed EU digital tax has raised questions about the effectiveness and clarity of the EU's competition policy in the context of evolving economic and technological realities. The paper also analyzes the practical implications of recent ECJ decisions on State aid law and tax rulings, including the impact on national tax systems, the challenges faced by Member States in ensuring compliance with State aid rules, and the potential risks for companies receiving tax rulings that are subsequently challenged by the European Commission. In addition, the paper considers recent policy and regulatory developments in the field of State aid law, such as the proposed EU digital tax. Finally, the paper assesses the future of State aid law and tax rulings in light of these developments and identifies potential areas of reform or further legal clarification that may be needed to ensure the continued effectiveness of EU State aid law in the face of evolving economic and technological realities. By addressing these questions, we aim to contribute to a better understanding of the relationship of EU law, State aid, tax rulings and FDI in the Single Market and to inform policy discussions on how to promote fair and open competition while also attracting foreign investment.

**KEYWORDS**

EU law, State aid, Tax rulings, Foreign Direct Investment, Single Market.

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**FOREIGN DIRECT INVESTMENT AND INNOVATION: A BIBLIOMETRIC REVIEW AND ROUTES FOR FUTURE INQUIRY**

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**ABSTRACT**

The objective of this article is to explore the current state and direction of the intersection between foreign direct investment and innovation (FDII), through the process of identifying, assessing, and combining previous research findings globally. To achieve this goal, the paper conducts a bibliometric meta-analysis of the extensive and expanding body of literature on the topic of innovation and FDI. We employ a bibliometric methodology to analyze 542 Business and Economics related articles from Elsevier's Scopus database that contain keywords related to "FDI" and "innovation" in their titles, abstracts, or keywords published up to 2022. The analysis was conducted using the bibliometrix package in R and VOSviewer. This contribution offers new insights into the interconnected fields of FDII research from a holistic perspective. It suggests that foreign direct investment is enabling the movement of funds and assets among various stakeholders, who all stand to gain from participating in open innovation platforms.

**KEYWORDS**

Foreign Direct Investment, Innovation, Bibliometric Data Analysis.

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## HOUSING CONSTRUCTION AS AN INDISPENSABLE KEY TO GREEN GROWTH AND SUSTAINABILITY IN A DIGITILIZED WORLD

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### ABSTRACT

The Industrial Revolution signaled an unprecedented change in manufacturing processes with explosive effects on all aspects of human life: the economy, technology, culture, and society. This transition has been difficult and has relied on natural resources that were once in abundance. Economic growth still remains a primary goal for humanity, however a new problem has emerged: the natural resources that are already decreasing at an alarming rate must continue to supply mankind with the resources which will be needed in the future. The solution to this problem is Green Growth and the construction industry is one of the main junctions between the current Digital Revolution and the Green Growth. This article outlines the channels through which housing construction can contribute to Green Growth and sustainability in a constantly changing digitalized world. New materials, building techniques and digital technology like flexible electronics, 3D printing, Building Energy Management System (BEMS), Building Information Modeling (BIM) as well as new trends in Architecture are only some of the tools that can be used in housing construction industry in order to promote sustainability, while embracing Digital Revolution.

### KEYWORDS

Housing Construction; Sustainability; Digital Technology.

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## SPATIAL TRANSFORMATION OF REVEALED COMPARATIVE ADVANTAGE: APPLIED IN BLACK SEA AND EASTERN MEDITERRANEAN ECONOMIES

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### ABSTRACT

Part of standard literature intends to reveal comparative advantage of specific countries and regions by focusing on relative trade flows of sectors and industries. Yet, both, the existence of "horizontal" spatial attributes, as well as the domination of intra-industry flows in international trade, speak for the significance of regional specificities and of arguments that refer to imperfect competition. In the present paper we start with the simple transformation of the regular Balassa Index: instead of comparing the sectoral breakdown of trade flows, we do the same but for a decomposition by trade partners. Thereby we "reveal" the underlying comparative (dis-) advantages of a specific country with respect to the destination countries (instead of sectors). In the second part of the paper, we focus on the Black Sea and Eastern Mediterranean region and we proceed with a panel data analysis of the determinants of the spatially transformed

RCA index. Empirical results reveal interesting insights of the various bilateral trade relations in a region appears to be (once more) of key importance for the geopolitical and -economic architecture worldwide. Based upon these, we conclude with “out of the box” policy implications.

**KEYWORDS**

Spatially revealed comparative advantage.

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**GOVERNING UNDER CHAOS? COVID-19 PANDEMIC  
AND PUBLIC ADMINISTRATION RESILIENCE IN GREECE**

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**ABSTRACT**

The covid-19 pandemic was the greater crisis faced humanity, at least, during the last century. A crisis that had a significant negative impact beyond the public health, on the society, the economy, and the public administration. Especially public administration has been at the forefront of confronting and eliminating Covid -19 negative impact and protecting citizens life. Continuing and ensuring the performance of public administration in an environment of long – standing crisis and uncertainty, has been identified as the catalyst for the effective response to the covid-19 pandemic at international level. At the center of national administrative systems response to covid-19 pandemic, were standing the performance and the resilience of strategic management strategies and patterns. In this context, the purpose of the research is to analyze, and comparative evaluate the strategies and the models adopted from Greek public administration, for the strengthening of its strategic management resilience during the Covid-19 crisis. Research’s results are based on a national level, mixed methods, empirical survey conducted on 29 public organizations in Greece, to identify and evaluate their strategic management adopted strategies and the impact they have on organizations’ performance. Furthermore, research focuses on the analysis of the Greek experience on strategic management resilience, comparative to international experience models and patterns of response, in an attempt to identify different and common implementation patterns and analyze strategic management models performance in times of crisis.

**KEYWORDS**

Strategic management, public administration resilience, evidence – based policy making, governance innovation.

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**SUSTAINABLE FLIGHT TRAINING USING ELECTRICAL AIRCRAFT**

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**ABSTRACT**

In 2020, the first electric aircraft (a.k.a. Pipistrel Velis Electro) was certified according to the strict requirements of EASA, the European Aviation Safety Regulator. These aircrafts have been specially designed for flight training. This now opens the possibility to train pilots without emitting

emissions during flight. In addition to the CO<sub>2</sub> savings, the aircraft is also considerably quieter than conventional training aircraft. Due to these technological developments, flight schools can switch to electrically powered aircrafts within a time span of seven to ten years. To further support the international call for sustainability, flight schools can go further than just electric flight training. For example, they can use simulators and digitize all processes encounter during training. They can also make plans to generate their own electricity through solar panels. It's not easy being green – particularly if you're learning to fly. Air travel has been slow to adopt clean energy, but while the next generation of aviators waits for commercial airlines to move away from fossil fuels, it doesn't mean they can't train with lower carbon emissions. Not only is it representing a change in technology applied to training, but it is definitely changing the mindset of future pilots who inevitably will want to fly cleaner, electrified airplanes as part of their pilot careers. In this line, the aim of this paper is to present the challenges and opportunities of this elevated future for sustainable flight training.

#### **KEYWORDS**

Electrical Aircraft, Flight Training, Sustainable Aviation.

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## **CAPITAL WITH NATIONALITY?**

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#### **ABSTRACT**

This research examines the distribution and allocation of FDI flows into Bosnia and Herzegovina (BiH) from 2010 to 2020 with the aim of answering the main research question: how does the structure of the country's administrative units (cantons and regions) affect the geographical allocation of inflowing foreign direct investment? At first sight, the major investors of the predominantly Catholic and Orthodox regions of BiH mostly originate from the mother countries (Croatia and Serbia), while enterprises from Muslim states (Türkiye, Gulf states, Iran, Malaysia) are primarily present in the areas principally inhabited by Bosniaks. Consequently, one might identify a direct cultural/political correlation between the nationality (religion, cultural identity) of the investors and that of the target geographical areas. On the other hand, businesses registered in other countries (e.g., EU member states, PRC, India) largely invest in Bosnian and Herzegovinian market opportunities for merely profit-oriented reasons, ignoring the country's ethnic or religious divisions. Previous researches have dealt with the origins and nature of FDI inflows to BiH from 1990 to 2008 and from the global financial crisis to the last years of "boom times" prior to the Pandemic. This paper, however, complements the related academic literature with the assessment and operationalization of the most recent data in this field. Connecting to other researches, this study also examines the possible relationship between the national/cultural identity of the foreign investor and their choices as for the target economic sector and portfolio on the BiH market. In order to have a more detailed and complex picture, the present study takes into consideration the societal/historical background of the municipality where the concrete foreign investments were made as well. It is also important to stress if a foreign transaction received BiH state support or not. By lining up the dates, volumes, and frequencies of foreign investments to Bosnia, it is possible to understand the dimensions,

trends, and directions of FDI actions in Bosnia and Herzegovina. The paper's major claims are built upon the online available statistical data obtained from BiH and EU institutions, as well as the semi-structured interviews made with current and former finance ministers of Bosnian and Herzegovinian cantons and regions. The research is intended to determine the reasons of the disparities within the economic development of BiH regions, to identify which countries are among the top investors to Bosnia and Herzegovina and why, and finally, to understand the factors why the Western Balkan state could not show dynamic economic growth despite the number and volume of FDI arriving to the country in the given timeframe.

**KEYWORDS**

Foreign Direct Investment, Bosnia and Herzegovina, FDI, Sociocultural Influence.

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**MIP SCOREBOARD ANALYSIS AND RISK RELEVANCE**

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**ABSTRACT**

After a short recovery following the latest financial crisis, which started in 2007-2008 the European Union (EU), introduced as a part of European Semester, the so-called Macroeconomic Imbalance Procedure (MIP). Since 2010, this surveillance framework aims to identify potential risks on early stage, based on some sequential steps such as Alert Mechanism Report (AMR) and a Statistical Annex (SA), through an economic reading of the MIP Scoreboard. In this way, EU is able to coordinate economic policies, preventing the emergence of macroeconomic imbalances, correcting the ones already screened and blocking its potential effects to spread out among the member states. Beyond AMR, a country-specific in-depth review (IDR) enables the Commission to conclude over the existence of imbalances and the appropriate recommendations. The Scoreboard includes fourteen headline indicators related to external and internal macroeconomic imbalances and social developments, along with auxiliary indicators that assist the risks meaning and policy arrangements. The economic conditions impairment increased during the pandemic crisis even though the previous recovery was slowly returning. In this context, focusing on the fourteen Scoreboard's indicators, we could assess the significance of the variables through a multivariate model using regression and interdependent analysis. In order to determine the relationship between indicators multi-collinearity test and a matrix of correlation performed, while the analysis used annual imbalanced panel data of 27 EU member states from Eurostat from 2010 to 2021, with a particular focus on the case of Romania.

**KEYWORDS**

MIP, Scoreboard, risk, multivariate model, interdependent analysis, AMR.



## DEVELOPMENT OF A COMPUTATIONAL MODEL FOR CALCULATING THE RESOURCE REQUIREMENTS NEEDED BY RIZZOLI ORTHOPEDIC INSTITUTE TO CONSUME THE ENTRIE WAITING LIST

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### ABSTRACT

The continuous growth in the demand for surgical services, linked to demographic reasons, the increase in technological innovations available in surgery (e.g., robotic surgery), and unforeseeable critical events, such as the SARS COV-2 virus pandemic, has generated, especially during the last pandemic years, an increase in Waiting Lists for surgical services in the National Health System. This increase in demand has not been followed by an increase in economic, structural, and human resources, thus generating a slowdown in the ability of the National Health System to meet patients' health care needs. The reason behind the sustainability of the National Health Service is the need for a proper balance between Citizens' Health Demand (understood as the Waiting List in coherence with the National Plan for Waiting List Governance) and the Productive Capacity of the system (understood as the number of services that can be delivered according to the available resources); therefore, it becomes imperative to develop objective monitoring systems of Health Demand and Supply, organizational models aimed at increasing the efficiency of the peri-operative pathway of the scheduled surgical patient, and preventive simulation tools useful for identifying the optimal strategies to be implemented in order to ensure a balance between the consistency of the Waiting List and the Productive Capacity. The purpose of this paper is to develop a Decision Support System, i.e., a model for calculating the resource requirements needed by the Rizzoli Orthopedic Institute to dispose of the Waiting List, in accordance with the volumes of resources currently available at the strategic level, in order to define the best possible set-up to achieve the best response to citizens' health needs. The instruments used for the analysis are the Operative Registry, the ADT (Admissions Discharges Transfers) of hospitalizations and the Rizzoli Waiting List. In each of the informatics tools, through a unique ICD9CM nomenclator, all patients on the Waiting List, surgeries performed and all discharged are coded. The final computational tool, output of the research project, will allow the calculation, based on patients on the Waiting List and their related ICD9CM, of the volume of resources needed, in terms of beds and operating room hours, to facilitate the downsizing of patients on the List by ensuring their more efficient access to care, parameterize the possible increase in operating room efficiency by identifying the optimal case-mix, and at the same time provide a predictive and dynamic assessment model of the resources needed based on the patients who will enter the Rizzoli Waiting List. The demand for access to surgical services

within the National Health System appears fluid and is embedded within a dynamic multi-factor system of high complexity. The attribute "fluid" related to the Waiting List is significant precisely because the List changes daily given the outpatient activity by physicians by which patients are defined as surgical, i.e., in need of surgery, and therefore placed on the Waiting List. Given the high unpredictability of demand for access to care, also related to sectoral, economic and extraordinary factors, the adoption of predictive tools that can guide decision making strategies by health care providers, particularly Rizzoli, is really essential.

#### **KEYWORDS**

COVID-19, Health re-organization, Health Organization, Data Quality, Decision Support System, Predictive tools.

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## **LIVESTOCK AND CLIMATE CHANGE IN SOUTHERN COUNTRIES: CASE OF MOROCCO**

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#### **ABSTRACT**

In family livestock systems, livestock play a major role in food security. It contributes significantly to increasing agricultural yields through its integration into agriculture (through the use of animal traction and manure). Unlike industrial farming, family farming systems therefore fulfill many roles, including an important environmental role through their positive impact on biodiversity and soil quality. In addition, grazing systems, which are part of family livestock systems, seem to have an often underestimated capacity to offset GHG emissions thanks to the fact that they can maintain grasslands in good condition. This means that, although further research is needed, family livestock systems can play a vital role in mitigating climate change. Trying to understand the complex relationship between livestock and climate change requires a multidimensional approach. Trade-offs must be considered between the social, economic and environmental pillars of sustainability. The relationship between livestock and climate change should be seen as a two-way relationship, as climate change also affects livestock systems and family livestock in particular. Therefore, further research is needed to document how family livestock systems adapt to climate change while mitigating it, due to their social, economic and environmental importance. This research needs to be combined with a supportive policy framework that supports family livestock keepers in their efforts to develop adaptation strategies. A first step in this direction would be to change the current discourse on livestock in relation to climate change, or even in relation to broader (environmental) sustainability: "It's not the cow, it's the how!" ». This study was carried out in the Moroccan Middle Atlas region, through a survey of breeders, a data analysis was carried out using SPSS software.

#### **KEYWORDS**

Livestock, climate change, sustainability.

## **ESG REPORTING AND CAPITAL MARKET INVESTORS: BUILDING SUSTAINABLE AND RESILIENT BUSINESSES**

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### **ABSTRACT**

Although resilience research has blossomed in recent years a comprehensive analytical framework of how corporations adapt with catastrophic events and resilient firm features is still absent. The current abstract proposes an innovative interdisciplinary and methodologically-rich investigation of the nexus between companies' sustainable behaviour and their economic resilience, building on the transfer of companies' ESG actions to their performance resilience. The paper's major research goal is to delve into the fostering of ESG principles on the nexus between business performance, sustainability and economic resilience, which opens a unique research strand in the academic literature and has significant consequences for companies and the business environment. The following study questions and objectives will help achieve this goal. How do ESG reporting and communications affect provider ESG scores? Also, we are interested in whether greater frequency company reports and communications give investors and stakeholders better ESG information than sustainability and annual reports. Linear and non-linear modelling will be used to highlight the link between corporate disclosure sources' ESG content and ESG scores and rankings, as well as text mining and topic modelling to analyze corporate ESG disclosure channels. How do market investors value corporate equities based on ESG principles evaluated by corporate disclosures or ESG scores? We envision using advanced econometric methodologies and supervised and unsupervised machine-learning based methodologies (event studies and random forests) to investigate the quality and speed of information transfer about corporate practices in stock market return distributions driven by investors' assessment of corporate ESG practices.

What ESG metrics indicate sustainable business growth? The final step will be to identify the optimal signaling ESG indicators for a sustainably developing and resilient company. We will use listed companies on international exchanges to measure their sensitivity to shocks using the financial stability toolbox (CoVaR and MES). Then, using supervised ML classification techniques we will separate resilient companies from less resilient ones based on their ESG attributes. Clustering algorithms will discover the right ESG metrics and activities for company resilience.

### **KEYWORDS**

ESG, capital markets, resilient, sustainable, business.

## THE INNOVATIVE AND ENTREPRENEURIAL ECOSYSTEM OF THE NORTH AEGEAN: MEASURING THE PERSPECTIVES OF THIS ENDEAVOR

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### ABSTRACT

Nowadays, the Fourth Industrial Revolution and its applications (Artificial Intelligence, Big Data Analysis, 3D Printing) alter the way we live, work and relate to one another. Today's transformations in the economic and social sphere are characterized by speed, velocity and systems dynamics. All the above produces a new reality, a new world, which has to become sustainable without undermining the future of the following generations. In order to reach that goal, this new reality needs to be aligned with the 17 sustainable development goals of the Agenda 2030, which defines a green & blue future, less waste, the use of renewable energy sources, with less economic and social inequalities, better quality of life as well as the use of innovation in industry and infrastructure. In this context, and based on the new trend, that has been growing worldwide, new ecosystems of innovation and entrepreneurship are being developed based on the exploitation of the results of scientific research as well as the innovative entrepreneurial initiatives. These ecosystems -especially those which operate in European countries- set terms, conditions and criteria, which assist to strengthen and reinforce existing business while contributing to the development of new ones. The aim of this work is to describe the development of such an ecosystem in the geographical area of the North Aegean. Taking into account the geographical discontinuity of this European region of Greece and the opportunities offered by technology, the goals of this study are defined as follows:

- Present the characteristics of these innovative ecosystems as described in the literature
- Trace the problems, the opportunities and the particularities of the region of the North Aegean
- Map representative stakeholders, such as businesses, self-government bodies, educational and research institutions, population groups including expatriates and university graduates, etc.
- Develop a measurement framework in terms of regions' readiness concerning innovation and entrepreneurship

### KEYWORDS

Innovation, entrepreneurship, ecosystem, North Aegean

## CITIZENS' ATTITUDES TOWARDS E - GOVERNMENT APPLICATIONS

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### ABSTRACT

Electronic government (e-gov) consists of information and communication technologies applied in government issues. The new digital era contributed to the evolution of the use of e-gov application to a more transactional and integrated operational level. Public managers use them a problem-solving tool whilst citizens and stakeholders in order to control public servants. As the recent pandemic of COVID-19 forced the public sector to adopt e-gov applications extensively and internet, telework, remote work, distance learning, online transactions are now part of everyday life in society, this study aims to explore the attitudes of Greek citizens towards the use of e-government applications. A primary survey conducted in November - December of 2022 to a random sample of 1200 Greek citizens. Principal component analysis (PCA) conducted to identify the main attitudes of Greek citizens towards the use of e-government applications. Therefore, two main attitudes derived from PCA: (a) E-gov application contribute to the improvement of the efficiency and effectiveness of public sector, and (b) E-gov application contribute to the better citizens' service. Cluster analysis performed to classify those citizens into groups according their attitudes towards the use of e-government applications. It identified three groups of citizens: (a) those who believe that e-government applications contribute to better citizens' service, (b) those who believe that e-gov application contribute to the improvement of the efficiency and effectiveness of public sector and (c) those who are indifferent. Nonparametric tests including chi-square performed to develop the profile of each of the identified group of citizens towards the main reasons they use e-gov applications and their demographic characteristics.

### KEYWORDS

E-Government, Digital Marketing, Public Sector, Internet, Citizens' Attitudes

## CONSUMERS' BEHAVIOUR TOWARDS TABLE GREEN LOW SALT OLIVES

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### ABSTRACT

Table olives are an integral part of the Mediterranean diet. Table olive production is expanding rapidly and contributes to the agricultural sector of several countries around the Mediterranean basin. Greece is among the largest producers of table olives which are mainly exported. Greek olives are an important part of Greek cuisine and Greek culture. Table olives from cv. Chalkidiki "Prasines Elies Chalkidikis" account for approximately 50% of the Greek table olive sector. All table olives are fermented in NaCl brine, which consequently affects the salt content and consumption. However, lately, consumers are more interested in a healthier diet like foods low in salt, which makes necessary the decrease of this mineral in foods. This paper explores consumer behavior, attitudes, and expectations for the development of a new reduced sodium table olive product from Chalkidiki olive varieties. The main aim of this paper is to investigate the knowledge and attitudes of consumers about health and nutrition, reduced salt consumption, and consumption of Chalkidiki green olives with reduced salt content. Summary statistics and multivariate analysis were performed for the data analysis. Some indicative results of the survey highlight a remarkable consumer interest in products with reduced salt content. Furthermore, the majority are willing to purchase foods with reduced salt content which is a possible action that can be taken to reduce salt intake. These outcomes emphasize that producing a new table olive product with a reduced salt content is promising, as the interest of consumers, industries, and the research community has turned to innovative actions that add nutritional value and meet the consumers expectations.

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### KEYWORDS

Consumers, Greece, Multivariate Statistics Analysis, Salt, Sodium, Table olive.

## ASSESSING THE IMPACT OF RESILIENCE ON THE QUALITY OF PUBLIC SERVICES IN PUBLIC SECTOR ORGANIZATIONS

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### ABSTRACT

Due to ongoing adversities, such as Covid-19, geopolitical instability, and energy crises, public sector organizations must manage the setbacks and ensure the delivery of uninterrupted and good quality public services to those who count on them, i.e. citizens. In retrospect, it is undeniable that during the Covid-19 pandemic, public sector organizations faced unprecedented challenges in ensuring the provision of public services. Most of them were not prepared to function in the turbulent conditions of the pandemic, which significantly affected the availability and quality of public services. Hence, this study aims to assess public sector resilience development trends and its impact on the quality of public services that public sector organizations provide. In this study, resilience is realized through a three-phase prism, i.e. Planning, Adaptation, and Enhanced Learning. We hypothesize that Adaptation is endogenously interrelated with Planning and positively affects Enhanced learning, which positively impacts service quality. Two consecutive surveys were conducted to collect the data necessary to analyze the link between organizational resilience and service quality in the public sector. To measure organizational resilience, 401 head managers of organizations that provide public services were interviewed from March to April 2022. Interviewing (from May to September 2022) 18 and above y.o. customers of earlier surveyed organizations, we collected data about the quality of public services from 3609 public service users. To test the hypothesis, we performed structural equation modeling (SEM). SEM revealed that Enhanced Learning positively and significantly affects Service Quality. Findings suggest that the bounce-back stage of organizational resilience, i.e., Adaptation, indirectly affects Service Quality through the bounce-forward stage, i.e., Enhanced Learning. Thus, Enhanced Learning acts both as an accelerator of Service Quality and as a moderator of the effect that other stages of organizational resilience have on Service Quality. Nevertheless, the significant effect of Enhanced learning on Service Quality is true if we conclude the estimation results for the whole sample, which are heterogenous across groups of organizations. Estimated coefficients related to the structure of organization resilience are relatively stable if we compare groups of organizations formed based on different aspects. It is not the case considering the effect of Enhanced Learning. We find strong evidence that organizational resilience helps to improve service quality in large organizations when the head manager is male who holds a higher than bachelor's diploma. In small organizations or organizations with head managers with relatively low educational attainment levels, the effect of organization resilience on service quality is not evident. The primary added value of the article lies in its findings that Service Quality evolves from Enhanced Learning, meaning that the approach towards the service is based on new

knowledge and experience that is collected during adversity. Moreover, it enables organizations to transform service provision considering the realities of changed circumstances, thus creating the conditions to plan for future adversities from the standpoint of a new equilibrium.

**KEYWORDS**

Resilience, public sector, learning, impact assessment, service quality, bounce forward.

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**EXPLORING THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE, CORPORATE SOCIAL RESPONSIBILITY AND FINANCIAL AND NON-FINANCIAL REPORTING: A STUDY OF LARGE COMPANIES IN GREECE.**

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**ABSTRACT**

Academics and professionals alike are highly interested in Corporate Social Responsibility (CSR), Corporate Governance (CG), and corporate non-financial reporting (CNFR) and how they can improve a brand's reputation, financial efficiency, and sustainability within businesses and organizations. These factors have a significant impact on the success of the entity within society. We conducted research by examining the 100 largest companies in Greece, collecting data both financially and non-financially from their official reports. We then divided their corporate responsibility initiatives into two categories, internal and external, further categorizing them into specific groups. Attention was paid to the way in which companies implement corporate responsibility and the standards and frameworks they use to make their information public to assess the effectiveness of the companies in the sample. Using appropriate quantitative tools such as similarity, classification and statistical methods, the correlations between the data for Corporate Governance, Corporate Social Responsibility and non-financial actions and key financial performance ratios are evaluated. Our research has revealed a strong link between financial performance and the actions of large companies in the realms of Corporate Governance, Corporate Social Responsibility and Sustainable Development. This study adds to the existing academic discourse on the relationship between financial and non-financial information of corporations in the areas of Corporate Responsibility and Governance and provides a valuable way to assess the decisions of businesses.

**KEYWORDS**

Corporate governance (CG), Corporate Social Responsibility (CSR), Sustainable development, ESG, Financial Reporting, Non-Financial reporting.



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## RATIONAL RESOURCE ALLOCATION IN THE GREEK PUBLIC SECTOR: KEY FINDINGS AND POLICY MANAGEMENT

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### ABSTRACT

The public sector has limited resources, and how these resources are allocated in expenditures and investments is crucial. Our article focuses on controlling this allocation for the Greek economy during the period of 2005-2021, which includes the country's debt crisis. To do so, we utilized data from national accounts, categorized inputs and outputs, and examined their volatility and stability over time using statistical and mathematical methods. Our analysis revealed that the crisis impacted both the size and allocation of public inputs and outputs. While some sectors of the Greek economy displayed stability in financing over time, others were more volatile. Using a mathematical-accounting approach, our article contributes to the academic discourse on rational resource allocation in the public sector. Additionally, the mathematical techniques we used allow the correlation of resource allocation with economic growth, as well as the identification of appropriate fiscal policies to follow during times of fiscal deficits.

### KEYWORDS

Public Revenues, Public Expenditures, National Budget, Mathematical and Quantitative methods.

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## LEVERAGE & BUSINESS TRANSFORMATIONS - THE CASE OF THE GREEK PUBLIC COMPANIES

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### ABSTRACT

The past few years Greek companies have made significant transformations to adapt the changing market conditions as a result of the recession and the COVID-19 pandemic. Perhaps, the most important issue they had to face was the lack of financing, especially for companies that were already facing a high leverage ratio. In the field of corporate finance there is a lot of discussion on the relationship of corporate transformations in order for businesses to remain operational and viable. Leverage and gearing are financial terms that refer to a company's use of debt to finance its operations or investments. Business transformation refers to a company's efforts to change its business model, strategy, or operations to improve its performance or adapt to changing market conditions. The relationship between funding and business transformations is critical, and companies must carefully consider the source and structure of funding to ensure that they have the financial resources to implement a transformation successfully. This may involve reducing other expenses, seeking out cost-effective financing options, or partnering with investors or other organizations to fund the transformation. We use data from companies that are listed on the Athens Stock Exchange. Using quantitative and econometric methods, we examine the relationship of corporate transformations on the company's degree of leverage as well as on its results. We observe that financing of companies is significantly correlated with

the level of leverage of companies. In order to cope with the reduced financing, companies undertook corporate transformations which were a lever to decompress and cope with adverse changes during the crises.

**KEYWORDS**

Corporate Finance, Gearing, Participations, Minority Interest, Mergers & Acquisitions.

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**NON-CURRENT ASSETS TRIGGER OF IMPAIRMENT - A STUDY  
ON NON-MARKETABLE ASSETS AND THE RELATIONSHIP WITH EVA**

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**ABSTRACT**

Impairment of non-marketable securities occurs when the value of an investment in a security that cannot be readily sold on the open market is less than its carrying value. Examples of non-marketable securities include private equity investments, venture capital investments, and real estate investments. It is important to note that impairment of non-marketable securities can be subjective, and companies may use different methods to assess whether an investment is impaired. Traditional methods of impairment have been provided from accounting standards such as International Financial Reporting Standards (IFRS) on how to identify and measure impairments. The trigger of impairment for non-marketable securities can be different from marketable securities, as the value of these securities is not determined by an active market. Impairment is a very important factor, high related with EVA, in order to evaluate the performance of an asset. In the context of EVA, impairment can have a significant impact on the calculation of EVA, as it reduces the amount of operating profit earned by the asset, which in turn reduces the amount of value created. If the impairment charge is significant enough, it may even result in a negative EVA, indicating that the asset is destroying value rather than creating it. The purpose of this paper is to introduce an alternative method for impairment, by first calculating EVA and then apply impairment depending on the difference between initial investment and value being created of the said asset. We use non-marketable securities and real estate investments of a company to value their impact on results on different years, and then compare them with initial acquisition investment. EVA can produce signs of impairment of an asset. Avoiding the traditional methods of impairment, the return generated by an asset in excess of its cost of capital, can be used as a trigger point of its value.

**KEYWORDS**

Corporate Finance, EVA, Impairment, IFRS, FVA.

## ASSESSING THE ECONOMIC IMPACT OF INNOVATIVE PEST MANAGEMENT TOOLS ON END-USERS

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### ABSTRACT

A significant challenge for humankind is to feed the increasing human population sustainably. If untreated, herbivorous arthropod pests and pathogens can be highly destructive to crops causing significant yield losses, often above 30%. Biological control, i.e., the use of beneficial organisms against pests, is the most widely applied alternative method to chemical control in organic farming and IPM programs. The objective of the present work was to assess the socio-economic impact of innovative sustainable pest control tools, such as the use of beneficial organisms, metabolites and peptides developed in the INTOMED project on end-users. Primary data were gathered through a structured questionnaire addressed to farmers, consumers, and stakeholders to identify the main determinants of production and consumption for the particular products. The data analysis involved multivariate methods: descriptive statistics, regression, and cluster analysis. These methods i) provided a profile of the sample respondents related to their attitudes towards the studied products, ii) identified the most determinant factors of production and consumption, and iii) created different groups of consumers and producers regarding their attitudes towards the studied products.

### KEYWORDS

Adoption, biological control, Integrated Pest Management, farmers, consumers, stakeholders, sustainable pest control.

## INVESTIGATING GREEK CONSUMERS' INTENTIONS TOWARDS GREEN HOTELS: AN APPLICATION OF AN EXTENDED "VALUES BELIEFS NORMS" MODEL

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### ABSTRACT

The current study investigates the intentions of consumers who choose green hotels, as well as the factors that may affect them. Specifically, a search of secondary and primary data is carried out. The review of the related bibliography highlights two basic theoretical models that have been adopted in the investigation of consumer behavior, regarding the choice of green hotels: the Theory of Planned Behavior (TPB) and the Values Beliefs Norms (VBN) Theory. Taking into account that there is a gap in our country's research in the field of consumer behavior regarding the choice of green hotels, in this primary research, an attempt is made to fill this gap by adopting the VBN Theory. The factors influencing consumers' intentions are biospheric values, the awareness of the consequences that human actions have on the environment, the ascription of responsibility for these actions and the personal norms that each consumer has. In addition to this theoretical model, three factors have been added: green trust, which is shown by consumers in the hotel commitments to the environmental practices they follow, environmental friendly activities they apply in their daily lives and the willingness to pay a premium price to visit green hotels. For this purpose, a sample of 200 respondents was used, through a structured online questionnaire. The results of data analysis show that the inhabitants of Thessaloniki Regional Unit have high biospheric values and a strong awareness of the consequences of their actions in the destruction of the environment. However, they show medium results in taking personal responsibility for the protection of the environment and the formulation of personal norms of moral obligation to contribute to its protection. Inductive analysis shows statistically significant correlations and regression equations between all pairs of variables in the theoretical model chain. The additional variables also seem to affect, to some extent, the intentions of staying in green hotels.

### KEYWORDS

Consumer Behavior, Green Hotels, Visit Intention, Green Trust, Environmental Friendly Activities.

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## THE NEXUS BETWEEN MILITARY EXPENDITURE AND UNEMPLOYMENT: PANEL BOOTSTRAP CAUSALITY APPROACH FOR CENTRAL AND EASTERN EUROPE

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### ABSTRACT

The effects of militarization on different macroeconomic indicators have long traditional debate in the terrain of defense economics. Accordingly, main interest has been paid on output and

productivity growth. Since unemployment is closely correlated with output growth through the Okun's Law, this paper aims to address the causal nexus amidst military expenditure per capita and unemployment for a large set of Central and Eastern European countries by considering a relatively novel approach in the empirical literature. Due to historical and geopolitical reasons, the disputes and proliferation is also prevalent among those countries. Under these circumstances, the economic effects of militarization worth scrutinizing issue for these countries. To this end, this paper conducts the bootstrap panel causality test approach that accounts for the slope heterogeneity and cross-country correlation over the period of 1996 and 2020. Within the presence of cross-country correlation and heterogeneity, the findings show no uniform tendency between military expenditure per capita and unemployment. In particular, the findings assert that bidirectional causality exists for Estonia, Greece, Latvia and Lithuania. Besides these four countries, causal interplay runs from military expenditure per capita to unemployment in Romania, Russian Federation, Turkey and Ukraine.

**KEYWORDS**

Military Expenditure, Unemployment, Bootstrap Panel Causality Test, Central and Eastern Europe.

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**RENEWABLE, NON-RENEWABLE ENERGY AND ECONOMY:  
A SYSTEMATIC LITERATURE REVIEW FOR GREECE**

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**ABSTRACT**

In recent years more and more researchers study issues related to energy and more specifically energy economics. The protection of the environment, the penetration of renewable energy sources into human life and the energy crises were strong motivations for further research in various fields of this sector and especially in the field of economics. For Greece, both individually and in comparison with other countries, many studies have been realized and these are analyzed in this paper. More specifically, a systematic literature review in the energy sector for Greece is carried out and in more detail in research that includes issues of economic growth and energy, in general, and renewable energy sources. In this study, the categorization and presentation of the methods followed, the relevant topics that have been studied, the broader study categories to which the specific research belong, the number of papers and the evolution of studies on this topic in recent years are presented.

**KEYWORDS**

Energy economics, Greece, Growth, Renewable energy sources.

## **BREAKING THE DEPENDENCY ON RUSSIAN FOSSIL FUELS: THE CHALLENGES OF ENERGY SYSTEM RESTRUCTURING IN EU COUNTRIES**

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### **ABSTRACT**

There have been numerous instances of Russia's aggressive policies over time, the most common of which has been the use of natural gas as a foreign policy weapon. Despite this, the relatively low price of Russian gas and oil, as well as its proximity to EU countries, have increased the EU's reliance on these resources, which have massively infused energy systems based on fossil fuels. The Russian invasion of Ukraine served as a wake-up call for EU countries' energy policies, and it is appropriate to ask how this contentious issue sustained Russian disruptive efforts and what the EU is doing to reduce its reliance on Russian energy. We are interested in identifying the link between EU countries' reliance on cheaper and more accessible Russian fossil fuels, and the structure of their energy system, using cluster and random forest analysis. Furthermore, we believe it is important to investigate whether more dependent countries were restructuring their energy systems more slowly because it was more convenient to use Russian oil and gas. The analysis is carried out for all EU-27 countries between 2000 and 2021, with data for 2022 included when available. The analysis' findings primarily point to the need for EU countries to consolidate and improve renewable energy infrastructure and gas storage capacity within the EU. These can also highlight various economic and strategic considerations, such as how the EU can use its economic power in international trade to reduce economic disruptions gradually.

### **KEYWORDS**

European Union; Russian energy; fossil fuels dependence; energy infrastructure; renewable energy.

## FOUNDER'S PERCEPTIONS ANALYSIS USING GRAPH THEORY AND MUTUAL INFORMATION – A COMPARISON BEFORE AND AFTER COVID-19 IN GREEK START-UPS

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### ABSTRACT

The paper examines the perceptions of Start-Up founders, using Graph Theory and Mutual Information. The study focuses on the Greek I.T. Start-Up founders. More specifically, the study examines Start-Up perceptions collected between January and March 2023, using Graph Theory in order to identify the behavioral and business patterns, as well as business behavior that guide the choices of Start-Up Founders, and their perceptions regarding competition, innovation and strategy. Furthermore, Mutual Information ratio is used to examine the relationships between the key variables, based on entrepreneurial models, in order to identify non-linear relationships between variables. Recent research studies focused on establishing the value of Graph Theory and Mutual Information in highlighting relationship between variables in entrepreneurial research; most specifically use of Graph Theory and Mutual Information revealed non-linear relationships and far more information compared to Coefficient Correlation. Findings of the present study are also compared with results from 2018/2019 dataset, in order to identify potential changes in the founder's perceptions. The reason for this comparison is the drastic changes in the business environment between 2018/2019 and 2023. Within four years several events changed the global business ecosystem, such as the Covid-19 pandemic, the global Supply Chain shortcomings, high inflation rates and a changing global political climate with extreme tensions in the Eastern Europe (Russian-Ukrainian conflict) and the Pacific Ocean. On the other hand, the Greek business ecosystem evolved since 2019, and the Greek economy managed to respond successfully to most challenges derived from the above-mentioned factor; so, 2023 is a far more different business environment for Greek IT Start-Up founders. For this reason, comparing the key findings of Start-Up founders in 2019 and 2023 may reveal useful insights for entrepreneurs, academy and policy makers.

### KEYWORDS

Entrepreneurship, Graph Theory, Mutual Information, Start-Up, Founders, Business Ecosystems.

## HOW STARTUPS DEVELOP CSR TO BUILD BRAND REPUTATION

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### ABSTRACT

This paper examines the application of Corporate Social Responsibility (CSR) in building brand reputation and competitive advantage of Cypriot SME startups. It seeks to explore the drivers, importance, and best practice applications of CSR activities by startups. It further analyzes customers' impressions of startup sustainability and CSR practices and the firm's reputation. The study adopted an interpretive study design (thematic analysis), focused on a sample of CSR specialists, advertisers, and startup owners, and revealed a reflection of the theoretical dimension of CSR in the study results. Specifically, the social intensity of CSR implementation and the adoption of practices that focus on human resources, the environment, and society at large, were captured in the data. Basic CSR principles, such as the need for the development and implementation of environmental awareness programs, volunteering, and labor, were commonly agreed by the participants as relevant emerging themes of the study. The results pointed out the importance of company ethics in shaping a healthy employee work environment and highlighted the critical role of the firm's purpose in building the brand. The emphasis on building relationships with society as a whole and specifically with the community in which the company operates seems to be the key to appropriate implementation of CSR regarding brand reputation. The reciprocal relationship created between customers who feel that the company does not solely focus on profit, but center in its connection with the community, is the basis for a profitable course. Voluntary actions organized by the firm to support the community, act as a means of building brand reputation.

### KEYWORDS

CSR, startups, branding, reputation management, ethics

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## DIGITIZATION AND E- GOVERNMENT: A SYSTEMATIC LITERATURE REVIEW FOR THE EUROPEAN UNION COUNTRIES AND THE UNITED KINGDOM

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### ABSTRACT

The subject of digitization, both in the public and private sectors, has attracted the interest of many researchers in recent years. The increase in the number of investigations related to this issue has become more intense since the emergence of the Covid-19 pandemic, which brought significant changes in the way of working, in the operation of the public administration, but also in the daily life of citizens. In this research, a systematic literature review is carried out in the field of digitization in countries of the European Union (EU 27) as well as the United Kingdom. The purpose of the research is to make a categorization of the researches, to study the evolution of the number of studies in recent years, to highlight the countries that are most involved as well as the collaborations between the countries in these researches.

### KEYWORDS

Digitization, European Union, e-government, quantitative methods, social network analysis



## TERROIR IN TERRITORIAL DEVELOPMENT BASED ON WINE PROTECTED DESIGNATIONS OF ORIGIN RECOGNITION

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### ABSTRACT

Historically agriculture and food trade has been heavily affected by both economics and politics. Governments have heavily distorted trade patterns with policy instruments (i.e., tariffs and subsidies). Regulations and standards applied can increase but also limit/prevent trade. Geographical indications, based on the concept of "terroir", represent an important form of food regulation that the EU has made a key trade policy priority. Among the different sectors, the wine sector is considered a world of territories. Historically, the quality of traded wine was linked to terroirs, the region where it was produced. The role of terroirs has been particularly important in wine regulations that use quality schemes to create collective reputations, resulting in improved efficiency and reducing market failures. Wine, due to its high economic value, is frequently one of the key factors in a region's development and sustainability and in addition, helps in making it a tourist destination producing numerous advantages for local, regional, and global economies. Drama regional unit is part of the East Macedonia and Thrace region, with about 60.000 people. Is mostly an agricultural region, with viticulture representing one of the main sources of revenue. In the area, there are 510 hectares of vineyards owned by the 10 wineries, as well as the local vine growers. The wine produced is classified in three PGI zones (Drama, Adriani and Agora) and has had a stable recognized quality in the domestic and foreign markets for the last thirty years. In order to further note the individuality of the region, Drama recognition as wine protected designation of origin (PDO) zone is the subject of our study. Our research investigates the behavior of five grape varieties and the resulting wine in different terroirs within the region aiming to examine the viability of creating a new PDO wine zone in Drama, Greece. Besides the quality of the wines there and noted the benefits of getting a PDO designation for them. A favorable dynamic that supports cooperation and competition among wine producers is fostered by the establishment of a protected designation of origin with benefits for territorial development. The creation of cooperation partnerships among the vine producers to establish quality standards and share the benefits of promotion activities could further enable transformation and change, leading to improvements at individual, organizational or sectoral levels. Furthermore, the proximity will significantly reduce the cost of procurement of materials and improve communication and information exchange. To increase market share and create scale economies, wine producers could also collaborate in developing marketing campaigns,

sharing of information regarding export potential, and other cooperative initiatives. Finally, the protected denomination of origin stimulates the production process by generating economies inside the region and outside of specific enterprises resulting in territorial development. Wine can be associated with tourism, local gastronomy, other agricultural products produced in the area, and ecotourism. Thus, territorial development and sustainability depend upon the survival and reinforcement of the local wine industry. The establishment of a protected denomination of origin in the Drama area will represent a long-time perspective in different economic areas.

**KEYWORDS**

Protected designations of origin, Greek wine, wine industry, Drama region, territorial development, wine marketing.

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**THE IMPACT OF INFLATION ON SMES:  
EVIDENCE FROM A SURVEY ON GREEK SMES**

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**ABSTRACT**

Our study aims to examine the impact of recent (2021-2022) inflationary crisis on SMEs. Based on the perceptions of the structuralism school on inflation and Kalecki's theory of dichotomy of market structure we specifically focus on the different impact of inflation in different types of businesses as regards to their size, internationalization dynamics and position on the value chain. Using a questionnaire survey, we measure the impact of the recent inflationary crisis on Greek SMEs' performance and the strategies they adopted in order to survive. Our results indicate that there is a dualism regarding the impact of inflation, their expectations and the strategies that firms adopt. This dualism is stronger mostly among small and big firms and among export and non-export-oriented firms. Our findings suggest that in times of high inflation, market concentration trends are reinforced since big firms gain a competitive advantage over smaller firms.

**KEYWORDS**

SMEs, Inflation, Price setting, Market power, Kalecki

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## EXAMINING THE INTENTION OF GREEK CONSUMERS TO PURCHASE FUNCTIONAL YOGURTS: AN EMPIRICAL SURVEY

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### ABSTRACT

Functional foods are foods that have been enriched or fortified with additional nutrients or bioactive compounds that are believed to provide health benefits beyond their basic nutritional value. These foods are designed to promote health and prevent or manage certain health conditions. Examples of functional foods include probiotics, which are live bacteria that are added to some dairy products and fermented foods to promote gut health. Functional foods are often developed through a process of scientific research and testing, and are regulated by government agencies to ensure that they are safe and effective for human consumption. They are typically marketed as a healthier alternative to traditional foods, and are often targeted towards individuals with specific health concerns or dietary needs. Despite that, very little is known about the attitudes of everyday consumers towards functional foods. The present study aspires to contribute towards filling that gap, offering insights to companies that consider introducing such products into the food market. Under that context, this empirical study explores the attitudes of Greek consumers towards functional yogurts. The Greek dairy market was selected, since it represents a significant share of the whole food market. Greek yogurt has been shown to be a crucial component of a nutritious diet, with people around the globe acknowledging its nutritional benefits and incorporating it into their diets. In Greece, there are many top-notch dairy industries with global reach, and consumers are increasingly discerning when it comes to the quality of the yogurt they consume. The present quantitative study is based on previous qualitative research (i.e., focus groups) that laid the background for this empirical attempt. A structured questionnaire was developed and distributed to 479 Greek consumers. Results indicate the profile of consumers that are more likely to purchase functional yogurts and underline statistically significant differences between various consumer groups. Finally, the study offers managerial implications to dairy industries and proposes directions for future market research.

### KEYWORDS

Dairy products, yogurt, empirical survey, Greece, functional yogurt.

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## THE MANDATORY VACCINATION – CONSIDERATIONS CONCERNING A PERSONAL LIBERTY AND PUBLIC HEALTH

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### ABSTRACT

Vaccines are effective tools for protecting people against infectious diseases. That is why some governments and organizations have made certain vaccinations mandatory to increase vaccination rates and/or achieve public health goals. The vaccines are shown to be safe and highly effective in preventing severe disease, hospitalization or even death. This work is prepared through the exegesis of a legal text in order to analyse the status of regulations concerning

mandatory vaccination in different countries. We conducted a systematic review of the patient's rights guaranteed in various legal acts of different countries. As a rule public authorities are obliged to combat epidemic illnesses and prevent the negative health consequences of degradation of the environment. The restrictions imposed by the authorities to protect the health and life of the citizens, raise considerable doubts as regards the basic standards for the protection of freedoms and rights. The actions of public authorities to prevent the spread of infectious diseases interfere in human and civil rights and freedoms guaranteed under the Constitutions of certain countries. Public authorities are obliged to combat epidemic illnesses. However, the concept of epidemic diseases cannot be equated with the concept of contagious diseases. Sometimes the restrictions imposed by the authorities violate the essence and often suspend the freedoms and rights, even though they are often justified from the point of view of public health.

**KEYWORDS**

Vaccination, liberty, law, public health

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## SUSTAINABILITY REPORTING OF RENEWABLE ENERGY COMPANIES IN GREECE

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**ABSTRACT**

Renewable energy has grown rapidly over the last 20 years as a key aspect of the transition to a less energy-intensive and more sustainable energy system. However, constant competition between companies, finances, taxes, politics and other factors have in many cases created environmentally harmful situations. Even if the technology is advancing and support these companies, even if the international laws for the environment and the safety measures of the operations have become stricter, it was nevertheless impossible to avoid these situations. The concerns of the public, but also of the renewable energy companies to control, monitor and measure the impacts from their operations to the environment and the life of society at the sites of operations, lead many companies to publish sustainability reports. This report is published by a company or organization concerning the economic, environmental and social impacts caused by its everyday activities and demonstrates the link between its strategy and its commitment to a sustainable global economy. A framework with specific economic, environmental and social indicators to support reporting for renewable energy companies is Corporate Social Responsibility (CSR) together with the Global Reporting Initiatives (GRI). GRI is an independent international organization that has pioneered sustainability reporting. It is very important to determine the extent to which these enterprises really contribute to sustainable development. The purpose of the current study is to collect and evaluate data on whether and to what extent the renewable energy companies within Greece disclose non-financial information. Specifically, the aim of this work is to evaluate through the investigation the relationship between these companies and environmental accounting.

**KEYWORDS**

CSR, RES, Sustainability, Non-Financial Reporting, Disclosures, Greece.

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## THE RESILIENCE OF THE HEALTH FINANCING SYSTEM. THE EXPERIENCE OF THE LOMBARDY RHS DURING THE COVID-19 PANDEMIC

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### ABSTRACT

In recent years, healthcare systems have faced an unexpected revolution in their organizations due to the Covid-19 pandemic. This has required new resources to adequately respond to all the emerging needs. Different funding systems in each country have offered different responses worldwide and have shown varying levels of resilience to the state of emergency. The lesson learned is that traditional health financing systems had not been tested to support such a catastrophic and global event. This study aims to analyse the impact of the Covid-19 pandemic on costs of an Italian regional healthcare system (hereafter RHS) to assess the resilience of its financing system. In particular, it focuses on the experience of the Lombardy RHS, the first European region to experience the pandemic disease. Through the analysis of national health expenditure data from the Ministry of the Economy and the analysis of the costs incurred by different Italian RHSs and in particular the one in Lombardy RHS, it studies how the Italian financing system based on per capita was able to offer an immediate response, ensuring that it was able to cope not only with the state of emergency but also with the continuity in services provision. Focusing on the traditional cost items of public healthcare management and analytical data from the region first involved in the state of emergency, non-parametric tests provided by the Covid-19 expenditure reporting for 2020, the year of the pandemic onset, were used to validate the hypothesis that the per capita financing system could ensure a more adequate response to the needs that emerged from the pandemic.

### KEYWORDS

healthcare systems, healthcare financing, Covid-19 pandemic, resilience, Lombardy RHS.

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## THE EFFECTS OF THE INFORMAL SECTOR ON FIRMS' PRODUCT AND PROCESS INNOVATIONS IN GREECE: EVIDENCE FROM THE WORLD BANK ENTERPRISE SURVEY

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### ABSTRACT

Several empirical studies indicate that the existence of a large informal sector is a major obstacle to firms' choices of innovation strategies. This paper addresses this issue and investigates the effect of the informal sector on innovation activities in Greece. Using the World Bank's Enterprise Survey data, the marginal impact of informality on formal firms' innovation

activities is investigated by testing three hypotheses: a) If competitive pressure from informal sector has a non-linear effect on innovativeness; b) if the effects of informal firms as obstacles to formal firms' product and process innovations are present controlling for the intensity of competition; c) if the innovation activities of younger firms are more intensely affected by the informal sector than those of older firms. The findings fill a gap in the literature of the effects of the informal sector on formal economic activity in Greece and contribute to the discussion about policy orientations on the reduction of the informal sector in Greece.

**KEYWORDS**

Greece, informal economy, innovation, competitive pressure

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**PESSIMISM IN THE DISCLOSURE OF EUROPEAN BANKS IN THE CONTEXT OF THE COVID-19 PANDEMIC**

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**ABSTRACT**

Our paper focuses on the disclosures of banks before and after the onset of the Covid-19 pandemic. We investigate the determinants of the pessimistic tone in the annual financial reports published by the ten largest banks in Europe. Results show that a bank with higher profitability uses a more pessimistic tone and older banks disclose information in a more pessimistic manner. Moreover, banks with a higher non-performing loans ratio are more pessimistic in disclosure. Lastly, the higher the depositor confidence, the less pessimistic the tone of the disclosure in the annual reports by banks.

**KEYWORDS**

banking, pandemic, disclosure, tone, depositor confidence

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**CORPORATE GOVERNANCE AND CORPORATE SOCIAL RESPONSIBILITY**

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**ABSTRACT**

In the middle of a dire economic crisis, with unemployment on the rise, war caused shortages and natural disasters on top of it all, let us assume a for-profit corporation that has not been hit by the disaster. It is doing very well financially, not only because it happened to make certain choices in the past that turned out well, but also because a great part of its clientele are the obscenely rich, who were not touched apparently by the crisis. And let us assume a suddenly enlightened board of directors, who have decided that, now that society needs it, they want to give. A lot. Projects of corporate social responsibility have always tended to depend on the idea of long-term profit for their justification. But what if no such profit is expected? Can the greater good be one such justification? (Isn't there a crucial difference here, from what is the case with people as moral agents?) And if it can, whose decision is it? The board's, or

the shareholders'? With what majority? The founders' perhaps? Or only the law's, insofar as the latter is traditionally understood to place boundaries on what a juristic person can and cannot do? Under what circumstances could such an ethical decision as we have described count as good corporate governance? What is and what is not within the scope of corporate governance? Isn't it anyway the case, that the idea of corporate governance embraces and deals with many more matters than business ethics or corporate social responsibility? that business must be conducted ethically, within the corporate framework. Consequently, this term too has been used interchangeably with "corporate social responsibility" and "business ethics", as if it denotes practically the same thing. We will be attempting here to delineate each idea, and to help determine the relations between corporate governance and corporate social responsibility.

**KEYWORDS**

Corporate Governance, Corporate Social Responsibility, CSR

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**INCOME LEVEL AND INEQUALITY IN GREEK CITIES:  
EVIDENCE FROM FUNCTIONAL URBAN AREAS**

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**ABSTRACT**

The aim of this paper is to present the spatiotemporal interpersonal income level and inequality for the Functional Urban Areas (FUA) in Greece. Analysis is based on microdata of declared income in Greece over the period 2004-2019. The selection of Functional Urban Areas (FUA) as a geographical level of income inequalities constitutes a novelty since it is the first time that income inequality is estimated at this geographical level for such a long period of time. This research is intending at making a contribution to the geographical discourse of interpersonal / intra-territorial income inequality by providing a comparative assessment of income inequality among FUA and between FUA and the total income inequality in the country. According to OECD classification of cities, FUA represent the largest part of the population in Greece. The share of urban population living in metropolitan areas in Greece stands out in comparison to other OECD countries. More than half (57%) of the country inhabitants live in functional urban areas, distributed into 33% in a large metro; 10% in a metro; 6% in medium-sized cities; and 8% in small cities. In comparison, 39% of OECD population lives in large metropolitan areas, 16% in metropolitan areas, 11%, in medium-sized cities and 4% in small cities. The analysis provides genuine results that are timely and, since these correspond to one of the most critical problem of contemporary time, these provide policy proposals for the promotion of inclusiveness within cities.

**KEYWORDS**

Income inequality, Gini Index, Geography and Income Inequality, Functional Urban Areas

## STATE OF SOCIAL INCLUSION, SOCIAL PROTECTION, SOCIAL COHESION AND WELFARE OF CITIZENS AT LOCAL LEVEL IN GREECE

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### ABSTRACT

Through field research conducted in the first half of 2021, the study aims to present the opinions and views of the residents of a municipality in the Region of Central Macedonia in Greece, on how they perceive, approach, and evaluate their socio-economic situation in light of the effects of the recent financial and health crises. Beyond the basic indicators, the measuring of citizens' perspective is of particular relevance because major changes have taken place in society, the national economy, and local economies during the course of the twelve-year period 2010-2021. Moreover, the results, can be a tool to support decision making by the respective authorities and to improve their related policies. The perception of the residents regarding quality of life, access to social and health services, facilities for people with disabilities, environmental issues, criminality, culture, civilization, volunteering, etc., is analysed and correlated to the living area in the examined region unit. A customised questionnaire was created for this purpose, a telephone opinion survey was conducted, and responses from a sample of about 3000 residents were collected. Appropriate statistical tools were used to decode, process, and analyse the findings of the survey responses. The data analysis and field research findings highlight significant factors and parameters for the community as well as residents' perspectives on particular issues from a variety of social and economic backgrounds, which could serve as a guide for the creation of targeted policies by local and regional authorities.

### KEYWORDS

Social Inclusion, Social Protection, Social Cohesion, Local Policies.

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## USE OF AN AI-BASED DIGITAL PREDICTION MODEL FOR THE EVALUATION OF URBAN INFRASTRUCTURE IN TERMS OF ACCESSIBILITY AND EFFICIENT URBAN MOVEMENT FOR PEOPLE WITH DISABILITIES

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### ABSTRACT

This paper discusses the use of an AI-based model for evaluating urban infrastructure in terms of accessibility for people with disabilities, and forecasting problematic areas in current or future construction projects. The model will be prototyped within the area context of the Region of Eastern Macedonia and Thrace, Greece. The concept is in line with the priorities of the European



Commission "Strategy for Rights of Persons with Disabilities 2021-2030" that guarantees the freedoms of people with disabilities, and the goals of the United Nations for sustainable, inclusive cities and the fostering of innovative technologies to serve societal goals, addresses the risks and opportunities arising from modern economic activity in urban communities. The research, based on a Digital System with Artificial Intelligence to be built at its core, will collect and analyse data from predefined pilot routes from people with mobility and eyesight disabilities, and compare with same-route data from people of the general population. The complete set of data will comprise the training dataset for the Artificial Intelligence module, responsible for decisions within the proposed model. The objective of the research is to have a reliable model capable of detecting mobility problem areas, evaluate the quality of related urban infrastructure, propose solutions for problematic routes and conclude in the creation of a holistic detection and evaluation digital tool to be used for better city planning by civil engineers, architects, urban planners and transportation specialists, and associated Public Administrations. The materials and methods of the research were decided through structured interviews and deliberation of "Bluechain Research Cooperative", a social and solidarity economy entity for open-source research and development in the field of Computer Science, with the primary administrative body representing the people with disabilities in the city of Kavala, the "Association of People with Disabilities of Kavala's Prefecture", as well as the "Limited Liability Social Cooperative of Kavala", key actors in the development of social economy activities in the region. The results of the joint action fulfil the agenda of the European Commission for high-tech social entrepreneurship in the Balkans and Eastern Europe, towards safeguarding the rights of vulnerable social groups, boosting social cohesion, and the engagement of social enterprises in the implementation of digital innovation and modern economic development.

**KEYWORDS**

Social Inclusion, Artificial Intelligence, Accessibility, Urban Planning, Prediction Models, AI-based Methods.

