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## **Conference Proceedings**

***ABSTRACTS***

Editor  
Dr. Patrycja Chodnicka-Jaworska

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**KADIR HAS UNIVERSITY – ONLINE/VIRTUAL**  
**August 25-26, 2021**  
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# CONFERENCE PROCEEDINGS

*Book of Abstracts*

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Patrycja Chodnicka - Jaworska

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*Universirty of Warsaw, Poland*

“ ESG imapct on the energy sector default ”

*“Special thanks to keynote speakers”*

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## Possibilities of gender pay gap elimination via taxes in the age of digitalization<sup>1</sup>

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### Abstract

There exists plethora of evidence on gender pay gap existence and many countries try to eliminate it. New data and studies done by OECD show, that gender pay gap is getting bigger much faster as digitization is becoming part of our lives and also integral part of work life in the new Industry 4.0 era. The digitalization works therefore as a drive motor for gap widening. Our motivation for research is to find the ways how to slow down or eliminate this negative trend of gender pay gap widening. In this work we have focused on the ways of gender pay gap elimination by tax related measures. Furthermore, the importance of GPG elimination can be argued by the fact, that even if the pay gap does not seem as a problem in the current moment, its accumulation over lifelong period may hardly affect behavior of individuals. From above mentioned evidence the research question has raised. In case of Slovak Republic tax and levies system, are there any possible ways of gender pay gap elimination rules, with provision, that such adjustment would have fiscally neutral effect on tax income. If yes, which of them would be the best one to implement? The aim of our work is to find out possible ways of lowering or eliminating the pay gap between men and women by tax related rules, under fiscally neutral constrain. Results of our work reveal, that to reach reduction of GPG of average net income by 1%, tax rate for women has to be lowered to 18.62% from original 19% and male tax rate should be set on 19.28% from original 19%. In case of elimination of GPG by 5% the tax rates should be set on 17.08% for female and 20.39% for male taxpayers. The second approach based on attributable and deductible non-taxable item to income, in the amount of GPG, may lower GPG from 20.23% to 10.57%.

**Keywords:** tax, gender pay gap, equality, digitalization

**Jel Codes:** J16, H21, E24

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<sup>1</sup> **Acknowledgement:** VEGA No 1/0779/19 Challenges of digitization of the economy in the field of taxation, possible solutions and their assumptions. This research paper is and outcome of the research project VEGA No 1/0779/19 Challenges of digitization of the economy in the field of taxation, possible solutions and their assumptions.

## **Testing multilevel knowledge economy pyramid model in environmental and agriculture fields. Case study: Romania**

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### **Abstract**

The value added of this research is consisting of stressing the importance of knowledge in the process, understanding the dynamics of knowledge process, generating connections among stakeholders, build up thematic structures, functional layers, knowledge ecosystems and environment. In other words, Multilevel Knowledge Economy Pyramid (MKEP) model is coming with an innovative and pretty exhaustive approach able to cover environmental and agriculture context, too. Generally speaking, can we talk about productivity for a manufactured good as long as mass production of this item could harm the natural environment or is not contributing to a certain increasing of standard of living? For this research, the objective is to give a new perspective to the approach of TFP analysis, and to understand the dynamic and interaction of its components. The neo-liberal model is targeting market and capital as main objective, but MKEP model is targeting knowledge and people. In the first one, the driven force is the accumulation of capital and in the last one, the driven force is the dissemination of knowledge. In the neo-liberal approach, the main issue is competition, but in the MKEP approach the main outcome is collaboration.

**Keywords:** knowledge, natural resources, environment, climate change, productivity

**Jel Codes:** D83, O13, O44, Q54, O49

## **Intellectualization of Economy in Latvia**

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### **Abstract**

The main characteristics of the smart economy are intellectualization, institutionalization, ecologization and socialization of the economy. This article analyzes the intellectualization of the economy, its main characteristics and indicators in Latvia. Taking into account the fact that the main goal of the smart economy is to increase the level of welfare, then the impact of intellectualization of the economy on GDP per capita in Latvia is determined.

**Keywords:** intellectualization, science, innovation, welfare, economy.

**Jel Codes:** C87, O11, O34

## Utility maximization under triangular fuzzy prices

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### Abstract

In microeconomics, a consumer who consumes goods (or services) such as  $x_1$  and  $x_2$  at fixed prices such as  $p_1$  and  $p_2$  is assumed to maximize their utility under the budget constraint. However, it is well-known that the prices are not fixed in real life. In this work, therefore, the prices are assumed to vary within a certain range. For a presumptive consumer, the variation is modeled using triangular fuzzy numbers. Then, the utility is maximized by considering the fuzzy constraint function. Using centroid and signed distance methods, furthermore, the fuzzy numbers are defuzzificated. Finally, the outcomes from crisp and fuzzy cases are compared. Results suggest that the highest level of utility can be obtained if the prices of the goods are left-skewed.

**Keywords:** Microeconomics, Utility maximization, Triangular fuzzy numbers.

**Jel Codes:** C02, D00, D12

## **Analysis of productivity and competitiveness challenges in Romania**

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### **Abstract**

The best way to have consensus on development of a measuring system of Total Factor Productivity (TFP) is the solution of current research which try to explain better the metamorphosis of the knowledge in the process. The question is: what do we prefer, to stay in an obsolete environment with dizzy figures about performance in productivity and competitiveness field, or to promote a new model capable to disclose the most important features for a robust environment in productivity and competitiveness, where all the stakeholders are interconnected, integrated, and deeply committed to increase the standards in addressing these issues? The solution proposed is Multilevel Knowledge Economy Pyramid (MKEP) model as a valuable tool for better understanding of the dynamics, trends, directions, scope, structures, levels of knowledge environment. This model is tested in the specific economy of Romania by comparing aggregate indices in productivity and competitiveness considering international databases and ranking systems. The result of this approach consists of the conclusion that policy making and decision-making process at governmental level in terms of productivity and competitiveness is the most sensitive point with a crucial importance for sustainable development. Building on this issue, MKEP is the backbone of institutional capacity around the productivity and competitiveness, and the structure for governmental policy in this respect.

**Keywords:** Total Factor Productivity, innovation, knowledge, sustainable development , welfare.

**Jel Codes:** D24, O30, D83, Q01, I31

## **The relationship between public health expenditure and child mortality in next-11 countries**

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### **Abstract**

This paper investigates the effects of public health expenditures on child mortality rates using dynamic panel data techniques for Next-11 countries (N-11) with data spanning the period 2000–2019. Among the dynamic panel data techniques, Pooled Ordinary Least Square (POLS) and Generalized Method of Moment (GMM) techniques were used. The findings of the study demonstrate that health expenditure has a positive effect on reducing child mortality in N-11. Moreover, according to the research findings increases in GDP per capita decrease child mortality. It is also found that an increase in fertility rate increases child mortality. The findings of this study suggest that policymakers should prioritize public health spending to achieve better health among children.

**Keywords:** Public health expenditure, Child mortality, Panel data, N-11.

**Jel Codes:** H51, I15, C23.

## The impact of economic and financial development of countries on shadow economy<sup>2</sup>

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### Abstract

This study examines the impact of economic and financial development on shadow economy. In the analysis, the financial sector is divided into financial institutions and financial markets. The study uses a sample of 28 EU countries and an observation period from 1995 to 2019. The fully modified ordinary least square was applied to analyse the influencing variables. It was found that most economic, as well as financial determinants have a strong negative impact on shadow economy. On the other hand, the determinants tax burden, interest rate and direct investment represent a significant positive effect on shadow economy. Regarding the different impact of financial institutions compared to the financial market, financial institutions have a much higher impact on shadow economy in their actions than the financial market. Within the scope of the study, the factors influencing the shadow economy were explained in more detail and connecting factors for prevention were established. The results serve as an aid to countries, municipalities, and governments in reducing the shadow economy.

**Keywords:** Shadow economy, financial development, economic development, Panel data, FMOLS.

**Jel Codes:** E26, O16, D53.

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<sup>2</sup> **Acknowledgments:** „This work was supported by a grant of the Romanian Ministry of Education and Research, CNCS – project number PN-III-P4-ID-PCE-2020-2174, within PNCDI III.”

## **Comparison of the monetary policy tools implemented by the European Central Bank and the Central Bank of the Republic of Turkey after the global crisis**

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### **Abstract**

As in many areas of the economy, the global crisis has led to radical changes in money markets, goals of central banks, and the tools they used. This study aims to examine the unconventional monetary policy tools and objectives of the central banks, which have started to be implemented in the last decade, especially in the European Central Bank (ECB) and the Central Bank of the Republic of Turkey (CBRT). In this context, zero interest rate policy and quantitative easing policy came to the fore in the ECB to stimulate the markets. In the CBRT, the interest rate corridor and reserve options mechanism came to the fore to eliminate the distorting effects of the capital coming from abroad. The policies implemented by the central banks in the post-crisis period were shaped depending on the dynamics of the countries.

**Keywords:** CBRT, ECB, Monetary Policy, Monetary Policy Instruments

**Jel Codes:** E52, E58

## Factors of purchase behaviour in the context of cognitive neuroscience - meta-analytic study

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### Abstract

The explanatory paradigms regarding influencing factors of consumer behaviour explains at extensive length. The latest neuroscientific discoveries present the fact "The brains system of response can be compared to an algorithm where the mind is the software which runs on the brain's hardware" (Magrini, 2017). The research creates an influence of factor type of analysis over consumer behaviour, placed in specific conditions, directed by the external environment and its variables. The identified factors are being analysed accordingly to the context of their influence capability over consumer behaviour (defensive or offensive). Therefore, the purchase patterns are identified accordingly to specific psycho-emotional variables. Throughout the external environment it is to be understood the framework and context of sales, created for a better perception of the product. It is to be taken in consideration the fact that specific characteristics of the consumer environment influences the decision-making process: purchasing or rejecting the product and its variability. The multifactorial analysis will insert the derivate explanation from the context of cognitive neuroscience. The research type is metanalytic. With this scope, validated and ISI Thomson indexed scientific articles have been taken in consideration. The metanalysis has been conceived of specialty literature reviewing with the objective of identifying the main factor categories which can influence consumer behaviour presented by other authors. This approach was needed because the behavioural patterns are being analysed and described in the context of considering that the influencing factors are modelling the consumer behaviour. The metanalytic study has considered the way the process of "neurologic impulse-influx" works and influences consumer behaviour. The analysis and result interpretation were realized by the wight of the statistical data pattern.

**Keywords:** neuromarketing, purchase behaviour, factors, metanalysis

**Jel Codes:** D87, D90, D91

## **Do entrepreneurship support programs empower women? An exploratory research**

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### **Abstract**

The aim of this study is to examine effects on women empowerment and finance services of sample (such as age, education, marital status and number of children) and business characteristics (type of support, number of employee). The data was collected from 421 women entrepreneurship in Turkey. Results show that are statistically significance difference in between single and married regarding women empowerment. Similarly, there is a significance difference in terms of number of children. The results extend the literature on women entrepreneurship and also can help developing supportive environment of policy makers. Besides, limitations of the study are covered in the study. There are many studies on the women entrepreneurship. However, few examined effects on women empowerment and finance services of sample and business characteristics.

**Keywords:** Women empowerment, women entrepreneurship, Turkey

**Jel Codes:** J11, J16, M10

## **Evolution of the concept of innovative youth entrepreneurship development**

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### **Abstract**

This research proposes a developed format of a survey of young people about innovative youth entrepreneurship. It provides mechanisms used for the development of youth start-up movement. Based on the interpretation of the obtained results from the respondents, certain proposals were defined to solve the identified problematic issues and improve measures of stimulating innovative youth entrepreneurship in the country.

**Keywords:** evolution, innovation, entrepreneurship development.

**Jel Codes:** P00, I20

## Management motivation and capital creation through employee stock options - International evidences under covid-19 circumstances<sup>3</sup>

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### Abstract

Successful corporate management requires rational coherence between financial management and human resource management, where the ability to skilfully apply the tools of motivational policy is important. Under COVID-19, companies faced the danger of losing valuable employees due to leaving. Therefore, in search of new methods for motivating and retaining staff, the research question of this study is to justify the benefits of implementing Employee Stock Options (ESO) as a technique for staff motivation in a pandemic environment based on capital formation rules. The results of a survey in the pandemic year 2020 among employers in Romania, Bulgaria and Kosovo confirm the interest in innovations in motivating staff to counter the increasing employee exiting and staff turnover trends.

**Keywords:** Capital creation; Employee stock options; Management motivation; Covid-19.

**Jel Codes:** E24, G32, J24, O15

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## **Creative accounting: Inside and outside the fiscal rules**

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### **Abstract**

The disadvantage of using government balance as a budget target systems from the major negative impact of investment spending on the government balance, even if by definition, investments will be able to generate revenue in the future. The analysis of government deficit and debt data over the last 20 years has shown that government deficit and debt targets have often been exceeded in Romania, either because of the financial crisis or as a result of inefficient fiscal policies. Therefore, Romania has been constrained by the excessive deficit procedure to generally implement budgetary austerity measures to comply with the fiscal criteria on government deficit and debt stipulated in the Treaty on the Functioning of the European Union. As revenues were limited and the deficit had to be reduced immediately, expenditures were reduced and capital expenditures were most affected, especially gross fixed capital formation. Eurostat accounting rules (ESA 2010 methodology) were not only the basis for EU Member States reporting in the context of fiscal surveillance, but also behind national fiscal policy decisions taken by the government due to fiscal constraints imposed by Maastricht fiscal criteria. In this paper are included some proposals in the context of Romanian economy on how to use national accounts methodology (ESA 2010) in order to avoid fiscal impact of some fiscal policy measures.

**Keywords:** National accounts, European System of Accounts (ESA 2010), government deficit and debt, investments, fiscal policy.

**Jel Codes:** H3, H5, H6, E62

## **The social representations of women entrepreneurs in the Croatian media**

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### **Abstract**

The media has an important role to play in transmitting and transforming entrepreneurial culture because through the representation of female and male entrepreneurs in the media the transformation of social objects (people, context) into symbolic categories (values, beliefs) takes place. In this paper we analyse the content of the media articles of the five most read Internet portals in Croatia (Indeks.hr, 24sata.hr, Jutarnji.hr, Net.hr and Dnevnik.hr) which deal with entrepreneurship topics. A discourse analysis of 945 articles, from 2013 to 2019, has been conducted. This paper explores how media-created content affects the desirability and feasibility of entrepreneurship for women. We identified four main categories of discourses: the normative discourse, the motivational discourse, the accessibility discourse and the cultural-cognitive discourse.

**Keywords:** Woman entrepreneur, entrepreneurial intention, media discourse, Croatian context

**Jel Codes:** L26

## **Determinants of dividend policy: Evidence from Africa**

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### **Abstract**

This study examines the determinants of dividend payout policy of some samples of firms listed on the Nigerian, South African and Egyptian stock market for the year 2005 to 2019. We found evidence of tangibility, profitability, leverage, growth opportunities, age, and size to be significant factors that influence the dividend decision of firms in the market. Among these factors, tangibility, leverage, and dividend volatility are shown to be insignificant for the Nigerian stock market. Profitability, dividend volatility and age to be insignificant for South Africa and the Egyptian stock market. In view of these findings, the study concludes that the growth opportunity and size of firms are the most significant in the African stock market. The implication of this study suggests that before investing in any firm in Africa for return, the investor should assess a company size and growth opportunities.

**Keywords:** Africa, corporate governance, dividend Policy, financial market.

**Jel Codes:** G11, G35

## **Social network analysis of publications from Turkey regarding infectious diseases**

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### **Abstract**

Due to the emergence Covid-19 pandemic, infectious diseases became globally important issue which has been seen how much it threatens public health and economy. Therefore, it is important to have multidisciplinary approach towards science, technology and innovation policy in order to overcome obstacles regarding infectious diseases. The primary aim of this study is to conduct social network analysis over the papers from Turkey in the field of infectious diseases in the last 5 years (between 2016 and 2021) at the level of researchers and institutions. Results were drawn from the analysis of networks of both researchers and institutions with regard to degree and betweenness centralities in the level of national and international collaboration. Unexpectedly, researchers with diverse connections in the larger component have papers with low citation score compared to the ones in discrete small components. Another finding is that most of the institutions have publications resulted from in-house collaboration so in order for institutions to benefit from the diversity of information, they need to collaborate with institutions in the hub positions. Within the framework of these results, the suggestions are developed to enhance collaboration in both national and international level for publications of Turkish institutions.

**Keywords:** Social network analysis, infectious diseases, structural holes, information flow, citation score.

**Jel Codes:** L14, I18, D83, O33

## **The lower danube tourist destination – From the heritage of the Roman Empire to a new infrastructure of tourist routes in the cross-border region Bulgaria-Romania<sup>4</sup>**

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### **Abstract**

The sector of tourism is a leading service sector according to the BoP methodology. Nowadays, not only has Covid-19 put the sector to the test, but many economic operators claim that they need for government support measures. Therefore, a strategic transformation of the tourism sector during and after the Covid-19 pandemic is logical and necessary. The main goal of this study is to endorse ideas for projects and tourist routes in the "Lower Danube" destination within the process of strategic transformation of tourism due to Covid-19 taking into account the cultural, historical and archaeological findings from the time of the Roman Empire in the cross-border region Bulgaria-Romania, its natural resources and the newly developed infrastructure in the Danube plain between the Carpathians and the Balkan Range.

**Keywords:** Lower danube, tourist routes, Covid-19, cross-border region Bulgaria-Romania.

**Jel Codes:** L83, O18, R58, Z32

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## **Study of the factors stimulating the youth innovative startup movement**

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### **Abstract**

The development of the innovation potential of countries is possible due to the improvement of R&D and innovation infrastructure that enables promising scientific research, innovative developments, their implementation and scaling in similar industry complexes (regions). Innovative products create a foundation for the export growth of products (services) and the development of national brands.

**Keywords:** development, innovation, education system.

**Jel Codes:** P00, I20

## Socio-economic inequality and crime rate nexus in the context of Russian regions<sup>5</sup>

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### Abstract

Socio-economic inequality causes a number of problems in the society. Particularly, lower segment of society is more prone to committing crimes worsening living standard and quality of life. In our study we employ panel data for the period from 2005 till 2015. We investigate the socio-economic inequality and crime rate nexus in the context of 77 Russian regions by applying fixed effect method. The main feature of this method provides unbiased and consistent estimators in the presence of correlation between individual effects and independent variables. We measure socio-economic inequality by taking indicators reflecting the level of social tension, for example, income, poverty and unemployment rates. Thus, the distinct feature of our study is the inclusion of additional factors affecting the crime rate, which have been overlooked in the empirical literature. The results demonstrate that crime rate increases with an increase in the population share having income less than living wage, as well as with a decrease in average per capita income. Therefore, we justify the relationship between socio-economic inequality and crime rate. Our study can be a theoretical basis for the implementation of real economic policy measures in the context of Russian regions.

**Keywords:** Socio-economic inequality, crime rate, fixed effects, Gini coefficient.

**Jel Codes:** D63, D69, D60

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## Determination of biogas potential from cattle waste in Aksaray<sup>6</sup>

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### Abstract

The increasing energy need of human beings with the developing technology has directed energy policies to renewable energy sources on a global scale. Our country has rich potential in terms of energy resources such as solar, geothermal, wind, and biogas due to its location. In this respect, especially the prevalence of agriculture and livestock sector shows that biogas energy production from agricultural and animal wastes can be a usable energy source to cover the energy demands. The purpose of the present study was to examine the biogas potential from cattle waste of Aksaray. The data were provided by TUIK and R. T. Ministry of Agriculture and Forestry in the study. In Aksaray province and its counties for 2020, the total number of cattle is 345809 heads. The total amount of cattle manure is 1891575.23 tons. As a result of the calculations, it was found that the biogas production amount of Aksaray that originates from cattle manure is 62421983 m<sup>3</sup>/year, and the total electrical energy potential, which can be obtained from animal manure, is 293 383 318 kWh/year.

**Keywords:** Renewable energy, biogas, animal waste.

**Jel Codes:** Q42, Q29

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<sup>6</sup> This study is produced from master's thesis.

## **Factors affecting the development of R&D and Innovation infrastructure in business acceleration system: National and foreign experience**

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### **Abstract**

The improvement of R&D and innovation infrastructure that provides the possibility of carrying out promising scientific research, mostly applied research aimed at obtaining economic and social effects, significantly influences the development of innovation potential of countries.

**Keywords:** factors, innovation, development, R&D.

**Jel Codes:** P00, I20

## Frugal innovation and its use

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### **Abstract**

This article studies frugal innovation and how consumers can benefit from its use, illustrated by examples of frugal innovation products and services. The article shows why frugal innovation has increased importance during economic downturns, especially recessions or depressions, which make countries apply austerity measures and adapt to a new reality where frugal living is the new normal. The concept of frugal innovation has its origins in India but it has gained popularity not only in other emerging markets but also in the industrialized world. Frugal innovation assumes the simplification of products and services to lower costs for the final products and services. Companies developing frugal innovation products and services can reap great benefit, considering that they can sell their products in emerging as well as industrialized markets.

**Keywords:** Economic downturn, frugal innovation, frugal products.

**Jel Codes:** M21, L52

## Challenges to Indian micro small and medium enterprises during the post covid era

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### Abstract

Micro, small and medium enterprises (MSMEs) play an important role in the economic and social development, contribution to employment, exports and revenue for the country. A large proportion of labour force depends on the MSMEs operating in the country for their daily livelihood. In other words, it is said to be the backbone of the nation., modernisation, better infrastructural facilities and appropriate training facilities etc. The onset of Covid-19 pandemic has called for lockdown as a safety measure in all the states of the country. This has led to dampening of the overall economic activity in the country. With respect to Indian MSMEs, generating cash for businesses is next big challenge. Delayed payments have further created problems for small companies as they have to pay the GST in a timely manner. If payments are delayed, the capital cost adds to the inefficiency and threaten their survival. To handle the Covid-19 related problems, the Indian MSMEs have to adopt a wider market-is oriented strategy. The Government of India (GOI) has already announced a number of stimulus package for the MSMEs to provide temporary relief through short-term liquidity infusions and other fiscal packages. In addition to this, more steps need to be taken to address the current challenge. New digital tools and platforms can help the MSMEs to revive their demand in the global market. However, the MSMEs, face numerous barriers and problems in matters of digital adoption and innovation.

Taking the background in mind, the study the objective of the study is to examine the problems and challenges faced by the Indian MSMEs, the role of E-commerce and digital platforms in the coming months (post Covid-19), the future development of digital tools and e-commerce in matters of improving competitiveness. Lastly, the study uses a theoretical insight model to show the positive impact of digital transformation on export performance (i.e., a measure of competitiveness of MSMEs followed by discussions and suggestions to resolve the current challenges posed in the post-pandemic times.

**Keywords:** MSMEs, E-commerce, Digital platform, Challenges, COVID-19 pandemic

**Jel Codes:** F14, F15, L25, D24

## **National map of higher education in Bulgaria**

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### **Abstract**

This publication examines the current deficits in higher education policy, attempting to make a brief analysis of the situation. Justification of the need for the introduction of a Map of Higher Education in Bulgaria is pursued, outlining certain recommendations and proposals.

**Keywords:** National map, higher education, Bulgaria

**Jel Codes:** I20, P00

## Universal postal service : An integral part of a competitive postal sector<sup>7</sup>

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### Abstract

The doctrine and practice of recent years has signaled the emergence of new challenges for public postal administrations everywhere in areas such as security, technology and infrastructure, which require quick and practical solutions. Citizens of different countries around the world are increasingly interested in protecting their right to a good and uninterrupted delivery of universal postal service, through effective public policies and institutional devices connected to the current reality of the digital age. Also, changes in the way consumers use postal services, as well as the accelerated decline in correspondence volumes lead to the need for an analysis of the definition of universal postal service (accessibility, access points, frequency of distribution, transit time, obligations quality of service), including an analysis of its sustainability. Any possible redefinition must take into account the financial impact and efficiency of service delivery. In order to cope with the decline in the core business area, postal service providers are required to diversify their activities by engaging in financial, digital or expanding services to cover and cover the entire value chain of postal services (eg logistics, supply chain management etc). The basis for a consistent transformation of the postal services must be found in the fundamental change of the operational mechanisms. Thus, innovation through the use of information and communication technology is a decisive factor in the development of postal service providers, by improving processes and quality, in line with customer needs so as to address recent market developments marked by declining correspondence traffic and increasing volumes. of parcels. In a broader context, the issue of providing universal postal service in the postal field has been considered less attractive at least for young researchers, who want to focus more on academic careers and less on the innovative methods that can underpin the provision. a universal postal service, with a profound social component, globally. The major changes produced in the economy, globally, the liberalization of the postal services market and the emergence of competitive companies, the provision of the universal service impose a new strategy on the postal services. As the promotion and protection of the interests of end-users must be a priority of the strategy for the development of the field of postal services and especially of the universal service, I appreciate that in-depth research is useful. The aim is that the results of the research can be used by the factors that can lead to the updating of primary legislation on postal services in order to review universal service in line with new legislation adopted at European level, taking into account the needs and characteristics of the national market, legislative framework that meets the needs of the national market in a global context.

**Keywords:** Universal postal service, strengthening the capacity of postal administrations, strengthen the capacity of states to implement universal postal service, international administrative cooperation.

**Jel Codes:** M2,F5,O21

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## Radiological monitoring of sand and soil from Vromos Bay<sup>8</sup>

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### Abstract

The radiological monitoring of the living environment is extremely important because it assesses the radiation status and the dose of ionizing radiation for its detection, humans have no developed senses. The creation of a logistic model for monitoring of any territory for which there is a risk of radiation contamination will stop the spread of incorrect information flow and will contribute to the sustainable management of natural resources. The researched radiological monitored area is located around the beach of Vromos Bay and was contaminated by ex-mining activities of copper, with flotation waste with increased content of natural radionuclides, as a result of which there are conditions the radiation status of the area to exceed the normal background values and to create risk.

The results of the study show that the highest content of <sup>226</sup>Ra ( $495 \pm 3$ Bq/kg), <sup>210</sup>Pb ( $222 \pm 3$ Bq/kg) and <sup>238</sup>U ( $150 \pm 12$ Bq/kg) was determined in the sample from the wetted part of Vromos Bay. This result is confirmed when determining the gamma background at the sampling points. The values of the specific activities indicate the presence of radiation risk, which goes beyond the acceptable values.

**Keywords:** Radiological monitoring, sand, Vromos Bay.

**Jel Codes:** Q00, Q01

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## **Risk diversifying ability of asset classes against equity in Pakistan: Evidence from Wavelet Coherence and value at risk framework**

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### **Abstract**

This study compares the safe-haven properties of different asset markets such as gold, dollar, oil, and real estate (house, plot, and residential), against equity returns in Pakistan over the monthly period of January 2011-December 2020. We employ the wavelet coherence to encapsulate the overall dependence and correlation of asset classes. Our results show the dependence is weaker (stronger) in the short (long) term investment horizon. We also study the potential of diversification at the tail of returns distribution by applying wavelet value-at-risk (VaR) framework that reveals the degree of co-movement between gold and equity returns greatly affects the portfolio risk followed by residential property and oil. Our findings are beneficial for the individual investor, fund managers, and financial advisors looking for the optimal portfolio combination that hedges the excessive negative movements in equity returns subject to the heterogeneity in the investment horizon.

**Keywords:** Equity; Real Estate; Oil; Gold, US Dollar; Diversification; Pakistan

## **The Chinese inland-coastal inequality: The role of human capital and the crisis watershed**

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### **Abstract**

We investigate the role of advanced education in the inland-coastal inequality in China and, related to this, how the consequences of the 2007-2008 crisis may induce China to re-focus its development path on human capital. We compare analyses for two periods (1998-2008 and 2009-2017) and for two diverging groups of provinces (the richer/coastal and the relatively poor/inland areas). In our panel data analysis, we consider a fixed-effects approach and a two-stage least squares procedure to avoid inconsistent estimates. In the first period, our results confirm the role of the traditional economic strengths that shaped the Chinese economic take-off and influenced the dualism. In the second period, the results show that an evolution in local economic endowments is taking place: first, although human capital can have a positive effect on all provinces after the crisis, not all types of advanced education have a direct and positive economic effect; second, the development path of the inland area is evolving, with progress towards more productive sectors which can favor higher returns to advanced human capital.

**Keywords:** human capital; inland-coastal inequality; China; advanced education

## Hot topic analysis of foreground publications funded by TÜBİTAK between 2019 and 2020

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### Abstract

The rising emergence of hot topic analysis of keywords that often coexist in the publications makes it important to understand intensity of priority relationships between scientific fields. The objective of this paper is to analyze compliance level between the foreground subjects of these publications and Turkey's research and development priorities. Accordingly, 17746 different keywords were extracted from Web of Science, out of 4825 publications funded by TUBITAK between the years 2019-2020. A novel approach for hot topic analysis of these publications is developed in two steps. First, a co-occurrence matrix was created according to the number of coexistence of keywords in the same publications. Second, based on the extracted these keywords, the network analysis is drawn in order to identify collaboration of the different fields. The results show that keywords of the publications in the field of Physics and Materials sciences, Computer Sciences, Information Systems; Engineering, Electrical and Electronics co-occurred on a large scale. Following this result, the network of the publications addresses that there is an interdisciplinary approach between publications in the field of Telecommunications and Environmental Sciences. According to this analysis, publications in the priority areas of Turkey, Agriculture and Food, Energy and Health, are in the minority. Therefore, the number of funding opportunities in these fields needs to be increased by TÜBİTAK.

**Keywords:** matrix, hot topic analysis, TUBITAK

## **The circularity puzzle: Perceptions, emotions, experience, expectations and investment-decisions under uncertainty**

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### **Abstract**

Investment decisions are not the outcome of rational processes alone. Instead, decision-making, particularly under uncertainty, is crucially influenced by social frames regarding an individual's perceptive capabilities. These frames determine the boundaries within which data is transferred into information, thereby paving the way for biases, self-fulfilling prophecies, and investor herding. In reality, investment decisions often are the outcome of rash decisions - as opposed to thorough, fundamental analyses. In a stable market environment, i.e., in a situation defined by the absence of pronounced cognitive strain or ease, (human) investors (in contrast to algorithms) reciprocally adjust rational and emotional features. As long as investors dispose of abundant time this continuous adjustment process will be upheld, preventing occurrences such as the so-called amygdala-hijack, which triggers a 'fight-or-flight' reaction. As this contribution shows, increasingly volatile stock markets require investors to radically shorten the process of decision-making, e.g., by applying heuristics. These can either be efficient cognitive tools - or a source of systematic errors. Retail and institutional investors' predictable irrationality, motivated by the fear-of-missing-out (FOMO), allows arbitrageurs to economically benefit from these behavioural patterns. Preliminary findings indicate that this circularity puzzle, i.e., investors' experiences, perceptions, expectations and emotions, has a considerably stronger impact on investment-decisions under uncertainty than reflected in any model to date.

**Keywords:** Behavioural Finance, Uncertainty, Decision-Making, Investments, Stock Market Volatility

## The role of structural and cohesion funds in Romania

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### **Abstract**

This article refers to the analysis of the role of the Structural and Cohesion Funds, which have been received from the European Union as a result of the accession process, and we aim to analyze the two programming periods, 2007-2013 and 2014 -2020. These financial resources were financed over time numerous projects under operational programs to reduce development that are present among Romanian regions and obtaining a homogeneous development and sustainable, both economically, but also socially, thus strengthening economic cohesion at the level of the European Union. The financial resources of the Structural and Cohesion Funds have been able to be realized and investments are still being made in many fields of activity, such as: education, health, human resources through certain programs and courses of qualification and professional training, environment, transport infrastructure, agricultural, fisheries, forestry, wanting to increase labor productivity and economic development in urban areas of the country and the creation of new jobs. All these changes are possible with the help of the sums granted by the European Union to our country and through the operational programs and the projects financed from these sums, making important progress, but not enough to reach the established objectives.

**Keywords:** structural funds, economic cohesion, programming periods

## **Foreign direct investment and economic growth in South Africa: On direction of causality**

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### **Abstract**

The foundation of this paper is built on the premise that foreign direct investment follows economic growth and development as opposed to the narrative that argues otherwise. Considering that background, this paper pursued finding the direction of causality and the kind of relationship that exists between the two main variables of interest (FDI and Economic growth) using time series data spanning 1980-2018. Using the vector-autoregressive Error correction mechanism (VECM) and the Autoregressive distributive lag (ARDL), our paper found neither uni nor bi-directional causality between economic growth and FDI in South Africa. The findings support the notion that FDI follows growth and development as opposed to the current policy stance that seeks to attract more FDI without exhausting the potential carried by domestic firms in stimulating economic growth. The results from granger causality tests, however, could not reject the null hypothesis of the causality that runs from unemployment to economic growth. The study found that unemployment in South Africa granger causes economic growth significantly. Recommendations arising from our findings are that South African policy makers may need to consider paying more attention to inward-looking policies. More efforts if possible should be put towards making sure that domestic investment is stimulated through making it cheaper especially for small businesses to secure funding as well as making the investment environment small business friendly to improve their success and contribution towards sustainable economic growth.

**Keywords:** Economic growth; Foreign Direct Investment; Causality; Time series