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in cooperation with
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Economic and Social Development

93rd International Scientific Conference on Economic and Social Development –
"Green Economy & Sustainable Development"

Book of Abstracts

Editors:
Marija Jurcevic, Katerina Fotova Cikovic, Humberto Ribeiro

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Economic and Social Development

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"Green Economy & Sustainable Development"

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EXCESSIVE PERFORMANCE TARGET AND PERFORMANCE OF MARKETING STAFF IN TURBULENT BANKING ENVIRONMENT - CASE OF SELECTED BANKS, AKURE METROPOLIS, ONDO STATE, NIGERIA

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ABSTRACT

This paper recognized the importance of attainable performance target in stimulating the desire and commitment of workers to perform their duties effectively. The paper examined the factors militating against the effectiveness of performance appraisal; appraised the extent of attainability of the set performance target, evaluated the performance of the marketing staff of the banks using the banks' key performance indices; and assessed the effect of excessive performance target on the staff' performance. The paper sought answers to research questions by employing survey design and purposive sampling technique to select the banks and respondents. Data was collected from 51 respondents with the help of structured questionnaire and personal interview. The respondents consisted of the marketing staff of the selected banks. Data were analyzed with descriptive statistic (mean average and standard deviation) and Pearson Product-Moment Correlation Coefficient (PPMCC). The study revealed that the performance targets were excessively high and, in most cases, unattainable. There was a negative relationship between the high-performance target and three of the four performance indices (-.780, -.534 and -.661) used by the bank, and positive but weak relationship with one of the performance indices (.230 - ability to work harder to meet target). However, the level of significance of between .000 and .044 which were lower than the table value of 0.05 were attained between the dependent and independent variables. Therefore, the study concluded that, there was a negative but significant relationship between excessive performance target and performance of marketing staff of selected banks. The paper recommends a review of the performance target used to appraise the staff and ensure they are attainable in order to stimulate the interest and commitment of the staff towards improving their performances and attaining the banks' goal.

Keywords: *Excessive, Marketing staff, Performance, Performance Target*

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RELATIONSHIPS BETWEEN SUSTAINABILITY DIMENSIONS IN GREECE

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ABSTRACT

Sustainability, or sustainable development has three aspects: economic, social and environmental.The level of economic development is shown by a nation's standard of living or purchasing power and is measured by the real per capita output.Social resilience is indicated by income inequality and quantified by the Gini coefficient.Environmental sustainability isapproximated by the amount of greenhouse gas emissions per capita. The objective of this research is to empirically study the relationships between the degree of economic development, socialresilience and environmental quality in Greece.This objective has been accomplished by deriving the original and the environmental Kuznets curves for Greece.The original Kuznets curve displays the connection between the level of economic development (real GDP per capita) and social stability (the Gini coefficient), whereas the environmental Kuznets curve illustrates the link between the degreeof economic development and the level of environmental degradation.The relationships between the standard of living and income inequality,on the one hand, and the standard of living and environmental degradation, on the other hand, have been both investigated by an ordinary least squares (OLS) regression. The empirical results from the research show that in Greece the rise in social resilience and environmental quality is accompanied by a fall in the living standard (the purchasing power per capita).It is advisable that Greek policymakers shift the Kuznets curves to the right in order to achieve a better trade-off between the living standard, on the one hand, and income inequality and the quality of environment, on the other hand.The original Kuznets curve may be shifted to the right by changing the type Green tax system from consumption-based to hybrid.The environmental Kuznets curve can be moved to the right by investments in low-carbon economy, which contribute to "green" economic growth.

Keywords: *Greece, sustainable development, Kuznets curves*

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PURCHASING POWER, INCOME INEQUALITY AND ENVIRONMENTAL DEGRADATION: THE CASE OF BULGARIA

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ABSTRACT

The goal of this paper is to empirically investigate the relationships between the standard of living, income inequality and environmental degradation in Bulgaria. To achieve this purpose, the original and the environmental Kuznets curves for Bulgaria were derived. The empirical results from the research show that in Bulgaria social stability falls as economic stability rises. This calls for tax and incomes policies aimed at mitigating income inequality. It is recommended that progressive income taxation and tax-free minimum income be introduced in order to reduce social instability in Bulgaria. Another conclusion that was drawn from the empirical analysis is that Bulgaria should achieve a real economic growth per capita of at least 5.8% so that a sustainable improvement of environmental quality is accomplished.
Keywords: *Bulgaria, Kuznets curves, sustainable development*

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FREE MOVEMENT OF CAPITAL IN THE EUROPEAN UNION

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ABSTRACT

The freedom of movement of capital represents one of the four fundamental economic freedoms on which the internal European market rests. In addition to the freedom of movement of capital, there is also freedom of movement of goods, freedom of movement of persons and freedom of movement of services. The single internal market of the European Union (further: EU) was officially established in 1993, and is considered one of its greatest achievements. The freedom of movement of capital includes regulations in the area of investments, investment funds, deposits, insurance, and dealings with securities, real estate investments, and prevention of money laundering. The questions that will be addressed are related to the movement of capital, the advantage of the movement of capital, the purpose of the movement of capital and the limitations of the movement of capital.
Keywords: *freedom of movement of capital, economic freedom, market*

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PROBLEM OF PREDICTION USING THE WELL KNOWN MODEL OF CONTINUOUS CAPITALIZATION

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ABSTRACT

This paper is presenting a problem that appears when the old well-known model of continuous capitalization, $C(t) = C(0)e^{it}$, is used for the prediction of a future values of quantity $C(t)$. At beginning a simple example is showing problem of prediction where the predicted value is greater than it is supposed to be accordingly to the assumption. The problem is in a misunderstanding of meaning of the parameter i in the exponent of the expression of growth model $C(0)\ e^{it}$. It is wrongly common accepted that this parameter is an annual rate of change or an annual interest rate. Mathematically, it is value of the first derivative of $C(t)$ for $t = 0$. It is also called the force of interest and it is denoted by δ. The connection between a real annual interest rate, i, and accompanying force of interest, δ, is done by equality $\delta = ln(1 + i)$. So that the right expression for mentioned mathematical model of growth is supposed to be $C(t) = C(0)(1 + i)^t$, where an annual interest rate, i, is used.

Keywords: *continuous capitalization, growth model, prediction model, force of interest, interest rate*

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SPATIAL, DEVELOPMENT AND RESOURCE CHARACTERISTICS OF MINERAL ROW MATERIAL MANAGEMENT IN KOPRIVNICA-KRIŽEVCI COUNTY

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ABSTRACT

Mineral raw materials are a non-renewable resource important for the Republic of Croatia. In the Koprivnica-Križevci County there are rich deposits of energy minerals – hydrocarbons (oil and gas and geothermal water) and non-energy minerals (for the production of construction

materials – technical-construction stone, construction sand and gravel from non-renewable deposits and brick clay. Regarding the exploration and exploitation of mineral raw material, there are certain problems, especially in relation to the environment, given the specifics of these activities. The exploitation of mineral raw material inevitably means a certain degradation of space in relation to the original state, given that the image of space is constantly changing. Although the areas are rehabilitated after the cessation of mining activities (or planned to be rehabilitated according to the rehabilitation project which is an integral part of the documentation for the approval of the exploitation field), the possibilities of using and the purpose of space after exploitation are often limited, especially after gravel and sand exploitation. In this paper, we present the data on the spatial, resource and development characteristics of mineral raw material management in the Koprivnica-Križevci County. This paper provides a list of currently active, planned, inactive, deleted exploitation fields and exploration areas in the Koprivnica-Križevci County.
Keywords: *exploitation fields, exploration area, economy, Koprivnica-Križevci County, mineral raw materials,*

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THE ROLE OF YOUTUBE MARKETING COMMUNICATION IN CONSUMER BUYING BEHAVIOR

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ABSTRACT

Due to increasing competition between companies, marketing communication via social networks is becoming more and more important to meet the needs of companies and users. Marketing communication via social networks is a two-way communication between companies and customers that takes place through a specific Internet service. Given the increasing use of social networks, there is a need to study the basic factors of marketing communication that influence consumer buying behavior. The purpose of this paper is to identify the factors of awareness, knowledge, liking and preferences as the fundamental factors of YouTube marketing communication and to investigate whether there is an influence of YouTube marketing communication on purchase intention. A survey was conducted on a convenience sample of 182 respondents. The research results show that the respondents use YouTube on a daily basis and spend a maximum of two hours per day watching the content. It was found that the respondents have negative attitude towards marketing communication on YouTube and also do not have purchase intention. In addition, respondents prefer as few YouTube ads as possible per video. Since the respondents are active YouTube users, the findings have implications for marketers looking to improve existing digital strategies on social networks.
Keywords: *YouTube, marketing communication, social networks, attitudes*

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STATISTICAL DIMENSIONS OF CIRCULAR ECONOMY

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ABSTRACT

In the present publication the authors analyse empirically various aspects of the circular economy applying different approaches of statistical analysis. Regarding the measurement of the progress of the individual EU countries in implementing the transition to a circular economy, a dynamic classification of the European Union countries was carried out using multivariate statistical methods such as factor analysis, cluster analysis and discriminant analysis, and the convergence process was analysed according to indicators of the waste management category. The temporal synchronization between the indicators for the characterization of packaging waste in Bulgaria and the European Union was investigated through cross-correlation analysis and dynamics and structure of the generated production and hazardous waste by economic activities and extent of their utilization by economic activities are surveyed by applying statistical methods for the analysis of time series and structural changes and differences. Finally, the regional dimensions of municipal waste generated in the context of the circular economy in Bulgaria are explored using a taxonomic analysis.

Keywords: *circular economy, convergence process, cross-correlation analysis, dynamic classification, multivariate statistical methods, taxonomic analysis, time series*

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SARS VERSUS COVID-19 IMPACT ON GLOBAL ECONOMIC

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ABSTRACT
SARS and COVID-19 are two serious viruses that significantly affect human society. The pandemics caused by the two viruses both influence the development of the global economy. This essay compares the impact of the two pandemics on the global economy. It first offers an overview of the two pandemics and their economic impacts on the global economy. It then discusses the reasons behind the differences with a focus on four aspects: the differences in the two viruses, cultural effect, time effect, and policy influence. While COVID-19 and SARS appear to be similar, their economic impacts are different.
Keywords: *SARS, COVID-19, pandemic, economic influence, global economy*

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ONLINE STREAMING E-COMMERCE INFLUENCE ON ECONOMY IN CHINA

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ABSTRACT
Online streaming e-commerce refers to the practice of selling products online via streaming directly to the customers watching the streaming. It gains growing popularity in China in past five years. During the COVID-19 with lockdowns and the sharp decline of in-store visiting, more farmers and retailers began to sell their products online, and more customers turn to the digital platforms and watch online streaming. In this essay, I discuss how online streaming selling becomes popular in China and get supported by the state, and how it contributed to the job market and China's GDP. The analysis shows that online streaming e-commerce plays an important role in boosting Chinese economy.
Keywords: *Online streaming, e-commerce, Chinese economy*

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PRICE DETERMINANTS OF THE CARBON EMISSION ALLOWANCES IN THE EU EMISSION TRADING SYSTEM

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ABSTRACT

As a consequence of the climate changes occurring at the global level, an international consensus has been reached to limit the global average temperature. To combat climate change, in 2005 the Emissions Trading System of the European Union (EU ETS) was established, limiting carbon emissions. Given the crucial role of the EU ETS scheme and the price signal of the allowances, it is of great importance to analyze the possible price determinants. This paper selects several variables and sets up an econometric model of the Autoregressive Distributed Lag (ARDL)/bound test to examine the impact of the selected variables on the allowance price in the short- and long-term. The analysis results suggest that kerosene futures and economic activity have a statistically significant and positive relationship with allowance prices in the short and long term. The fuel index has a negative relationship, but only in the long run, while the temperature change has a negative relationship in both the short and long run.

Keywords: *EU ETS, allowance price, carbon, kerosene futures, ARDL model*

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THE ROLE OF CRISIS MANAGEMENT IN TOURISM FROM THE ASPECT OF CLIMATE CHANGE

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ABSTRACT

This paper presents crisis management in light of climate change and the threat of climate crisis to tourism. The specificity of the paper refers to the argumentative consideration of climate change and the potential risks that the climate crisis poses to global tourism, of which winter

and coastal or marine tourism are the most endangered. The implications of the climate crisis for Croatian tourism require activities in the field of crisis management that are reflected in the timely responses of the state, counties, local destinations, hoteliers and the hopes of all tourism professionals, and the provision of appropriate responses, measures and instruments for the preservation of natural resources, and thus contribute to climate change mitigation. The paper presents a hypothesis that reads: "Based on the acquired knowledge about the effects of climate change on tourism, it is possible to establish that it is necessary, without delay, to approach this problem from the point of view of crisis management to recognise the upcoming crisis on time, to draw up management plans promptly, to provide adequate responses and to overcome the consequences with as little damage as possible." The expected results of the conducted research based on the argumentative confirmation of the hypotheses will contribute to the appreciation of the recognition and management of the climate crisis in the tourism industry, emphasising coastal tourism. The theoretical contribution of the work is reflected in the systematic and systematised presentation of theoretical knowledge about climate change and crisis management. In an applicative sense, this paper can serve students and managers in tourist destinations as a template for recognising and dealing with crisis management. Standard statistical methods will be used to analyse and process the collected data using appropriate computer programs.
Keywords: *crisis management, climate crisis, crisis in tourism*

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GREEN ECONOMY AS A DRIVER OF SUSTAINABLE DEVELOPMENT

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ABSTRACT

The broader vision of a successful global green economy implies the separation of economic activity from negative impacts on the environment. By realizing this vision, it is possible to set the global economy on a more sustainable path, which means preventing the very harmful effects of global warming not only on the environment, but also on economic prosperity. Preventing global warming implies a transition from the use of energy based on fossil fuels to renewable sources, which is why the stated challenge policy makers and investors often view the green transition only from a cost perspective, and not from an environmental perspective. However, the transition to a sustainable environment by 2050 also has the potential to create enormous opportunities in the global economy. The paper will explain the fundamental concepts related to the realization of the green economy, which are based on the achievement of the "Net Zero" goals by the year 2050. As entrepreneurship results in innovation and sustainable economic and social development, the emphasis will be on entrepreneurship, which provides the basis for starting and maintaining a green economy by providing green products and services, introducing more environmentally friendly production techniques, increasing the

demand for green products and services, and creating green jobs. In this sense, the basics of the current legal framework for creating such a green economy will be presented.
Keywords: *development, entrepreneurship, green economy, legal framework, sustainable*

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MOBILE DEMINING MACHINE BASED ON THE ARDUINO PLATFORM

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ABSTRACT
This paper presents in a concise way the use of the Arduino platform for the production of robotic carts that have the ability to detect metal, with the primary purpose of finding mines, but also other metal objects on the earth's surface. The robotic cart will be made of plastic, using a 3D printer. The robot will be controlled by an ESP32-CAM board which will, among other things, be in charge of transmitting the image in real time. A mini server will be set up on the board itself, which will be in charge of processing requests sent by the user from the smart device, such as the movement of the robot and the display of the image on the client side. The communication itself will take place via Wi-Fi technology, where the user will connect directly to the device and gain access to the robot control website. In order for the ESP32 to successfully power the engines and control direction and speed, an additional L298N module will be used. It is a dual H-bridge motor drive that allows control of the speed and direction of two DC motors simultaneously. The module can run DC motors that have voltages between 5 and 35V, with a maximum current of up to 2A. The EQKit MDS-60 will be used for metal detection. The sensor operates on a DC voltage between 3 and 5 V and with an operating current of 40mA. The sensor has the ability to detect metal at a distance between 60mm and 100mm. On the front there is a potentiometer with which the detection distance is adjusted. Eventually, an appropriate application was created with a user interface to manage the entire system.
Keywords: *Arduino, ESP32-CAM, L298N, EQKit MDS-60*

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HEAD OR HEART? DECISION-MAKING ON UNIVERSITY ENROLLMENT: CASE OF THE FIRST-YEAR STUDENTS AT POLYTECHNIC OF MEDIMURJE IN CAKOVEC

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ABSTRACT

A decision is a selection between alternative courses of action or alternatives. In the Republic of Croatia in 2021, graduates who passed their matriculation exams could choose from 119 institutions of higher education with the status of institutions for continuing education. 153 of them chose the Polytechnic of Međimurje in Čakovec. This paper provides an overview of the theory of decision-making, presents the enrollment trends at the Polytechnic of Međimurje in Čakovec according to the total enrollment quota, and investigates the enrollment decision-making process. The study measured the extent to which a first-year student believes he or she has made a decision based on an emotional or logical evaluation.

Keywords: *The Polytechnic of Međimurje in Čakovec, Decision-making process, Higher Education*

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