



International Scientific Conference, July, 1 -4, 2020, Pula, hotel Park Plaza Histria Pula

*Economics, Management, Finance and Social Attributes of Economic System
(EMFSA 2020)*

Proceedings of abstract



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*Economics, Management, Finance and Social Attributes of Economic System
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EMFSA 2020 is organized by the Centre of Sociological Research and BCSS in cooperation with Juraj Dobrila University of Pula, Faculty of economics and Tourism “Dr. Mijo Mirković”, Pan-European University in Bratislava, Alexander Dubcek University of Trencin, University of Finance and Administration in Prague, University College of Business in Prague, University of Entrepreneurship and Law in Prague, The Institute of Economic Research in Torun, Institute of Technology and Business in Ceske Budejovice.

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Conference program

Wednesday, 1.7.2020

16:00 – 18:30

Plenary Session, Hotel Park Plaza Histria Pula

18:30 – 22:00

Gala Dinner, Park Plaza Histria Pula, Yacht Club

Thursday, 2.7.2020

10:00 – 15:40

Section: *Finance*, Park Plaza Histria Pula

Friday, 3.7.2020

10:00 – 16:00

Section: *Economics*, Park Plaza Histria Pula

17:00 – 20:00

Meeting of editors, Park Plaza Histria Pula (only for editors)

Saturday, 4.7.2020

10:00 – 15:40

Section: *Management and Marketing*, Park Plaza Histria Pula

14:00 – 19:30

Special section of EFMSA, Park Plaza Histria Pula

1.7.2020: **PLENARY SESSION: 16.00 – 18.30** Hotel Park Plaza Histría

16:00 – 16:15	Yuriy Bilan <i>Rzeszow University of Technology</i>	<i>Opening of the conference</i>
16:15 – 16:30	Tomas Dudas <i>Pan-European University Bratislava</i>	<i>Chinese High-Tech Foreign Direct Investments in the EU – Trends and Policy Responses</i>
16:30 – 16:45	Vaclav Kupec <i>University of Finance and Administration Prague</i>	<i>Auditing and controlling as a tool for SME marketing risk management</i>
16:45 – 17:00	Petr Šuleř <i>Institute of Technology and Business in České Budějovice</i>	<i>Better results of artificial neural networks in predicting ČEZ share prices</i>
17:00 – 17:30	<i>Coffee break</i>	
17:30 – 17:45	Magdalena Grębosz-Krawczyk <i>Lodz University of Technology</i>	<i>The consumer storytelling as an element of word-of-mouth communication of nostalgic brands</i>
17:45 – 18:00	Dana Kiseľáková et al. <i>University of Presov</i>	<i>The influence of innovation potential on the economic performance of European member states</i>
18:00 – 18:30	<i>Final discussion</i>	

2.7.2020: **FINANCE: 10:00 – 15:40 Hotel Park Plaza Histria**
 (presentation may last up to 15 minutes, discussant has 5 minutes to discuss the article)

Chief of the Section: Prof. Dr. Jaroslav Belás

No.	Time	Last name, name	Topic of the article
1.	10:00 – 10:20	<i>Peter Arendas et al.</i>	The January Anomalies on CEE Stock Markets
2.	10:20 – 10:40	<i>Igor Fedorko</i>	Effort expectancy and social influence factors as main determinants on performance expectancy in use of e-banking
3.	10:40 – 11:00	<i>Hussam Musa, Janka Grofcikova</i>	The Impact of Board Process on Board and Corporate Performance
4.	11:00 – 11:20	<i>Patrycja Kowalczyk-Rólczyńska, Tomasz Rólczyński</i>	Logistic regression in the analysis of unexpected household expenses - cross country evidence
	11:20 – 11:50	<i>Coffee break</i>	
5.	11:50 – 12:10	<i>Petr Šuleř, Veronika Machová</i>	Better results of artificial neural networks in predicting ČEZ share prices
6.	12:10 – 12:30	<i>Ladislav Vagner et al.</i>	Earnings management: A bibliometric analysis
7.	12:30 – 12:50	<i>Marek Vochozka et al.</i>	The comparison of the performance of Statistica and Matlab software during the balancing of the time development of stock prices with neural networks
8.	12:50 – 13:10	<i>Enikő Korcsmáros et al.</i>	Slovakia with regard to convergence criteria
9.	13:10 – 13:30	<i>Anna Siekelova et al.</i>	Earnings Management Initiatives and Selected Characteristics of The Entity: A Case Study of The Visegrad Four
10.	13:30 – 13:50	<i>Naděžda Petřů, Andrea Tomášková</i>	Preference for using equity and debt financing in family businesses in the Czech Republic
11.	13:50 – 14:10	<i>Tomas Kliestik et al.</i>	Earnings Management in V4 countries: The Evidence of Earnings Smoothing and Inflating
12.	14:10 – 14:30	<i>Elena Gregova et al.</i>	Impact of Tax Benefits and Earnings Management on the Capital Structure Across V4 Countries
13.	14:30 – 14:50	<i>Katarina Valaskova et al.</i>	Assessment of efficiency of earnings management models in Visegrad countries using ROC curves
14.	14:50 – 15:10	<i>Pavol Durana et al.</i>	Parallels and Differences in Earnings Management of Visegrad Four and Baltics
	15:10 – 15:40	<i>Final discussion</i>	

3.7.2020: **ECONOMICS**: 10:00 – 15.40 Hotel Park Plaza Histria

Chief of the Section: assoc. prof. Dr. Adam P. Balcerzak

No.	Time	Author	Topic of the article
1.	10.00 – 10:20	<i>Dagmar Camska et al.</i>	Influence of Age on Selected Parameters of Insolvent Enterprises
2.	10:20 – 10:40	<i>Katarína Čulková et al.</i>	Economic Evaluation of Effectiveness and Rationality of Domestic Raw Materials Using in Slovakia
3.	10:40 – 11:00	<i>Marek Durica et al.</i>	CART-based Financial Distress Prediction Model for Slovak Companies
4.	11:00 – 11:20	<i>Miroslav Jurásek, Tomislav Potocký</i>	A new competitive advantage in international trade
	11:20 – 11:50	<i>Coffee break</i>	
5.	11:50 – 12:10	<i>Jana Marie Safrankova et al.</i>	The human resource management practice in Czech regional schools
6.	12:10 – 12:30	<i>Jana Marie Safrankova et al.</i>	Workforce management challenges in the fourth industrial revolution from the perspective of Czech employees
7.	12:30 – 12:50	<i>Erika Fecková Škrabuláková, Monika Ivanová</i>	On Rare Mathematical Methods in Economics
8.	12:50 – 13:10	<i>Katarína Teplická et al.</i>	Evaluation of Cost Development in Energetic Sector – case study in Slovakia
9.	13:10 – 13:30	<i>Tibor Zsigmond et al.</i>	Interconnection of Consumer Behaviour of Different Generations and Marketing Strategy of a Football Club – Experience in Slovakia
10.	13:30 – 13:50	<i>Andrea Bencsik, Timea Juhasz</i>	Impacts of Informal Knowledge Sharing (Workplace Gossip) on Organisational Trust
11.	13:50 – 14:10	<i>Katarina Janoskova et al.</i>	Models of Dependencies in Innovation in the European Union
12.	14:10 – 14:30	<i>Henrieta Pavolová et al.</i>	Model of raw materials exploitation evaluation for the support of sustainable development in Slovakia
13.	14:30 – 14:50	<i>Andrea Senova et al.</i>	Assessment of the Impact of Working Risks in the Exploitation of Raw Materials
14.	14:50 – 15:10	<i>Maria Kovacova et al.</i>	International literature review of company goodwill: 1842 - to present
15.	15:10 – 15:30	<i>Yuriy Bilan, Halyna Mishchuk</i>	Digital skills: new possibilities of labour market development in emerging economy
	15:30 – 16:00	<i>Final discussion</i>	

4.7.2020: **MANAGEMENT AND MARKETING: 10:00 – 15:20 Hotel Park Plaza Histria**

Chief of the Section: Dr. Ján Dvorský

No.	Time	Author	Topic of the article
1.	10:00 – 10:20	<i>Radovan Bacik et al.</i>	Analysis of the impact of public relations on the change in voter behavior of consumers (voters) in the Slovak Republic
2.	10:20 – 10:40	<i>Radovan Bacik et al.</i>	Analysis of the impact of advertising on the change of voter behavior of consumers (voters) in the Slovak Republic
3.	10:40 – 11:00	<i>Kristína Bečárová et al.</i>	Consumer approach to the waste of food in selected EU countries
4.	11:00 – 11:20	<i>Katarína Čulková et al.</i>	Trend of Raw Material Growth in Connection with Other Industrial Sectors
	11:20 – 11:50	<i>Coffee break</i>	
5.	11:50 – 12:10	<i>Robert Dankiewicz, Anna Ostrowska-Dankiewicz</i>	The attitudes of entrepreneurs of the small and medium-sized enterprises sector to key business risks
6.	12:10 – 12:30	<i>Richard Fedorko et al.</i>	Differences in the financial performance between the various categories of hotels in the Visegrad Group countries
7.	12:30 – 12:50	<i>Adriana Grenčíková et al.</i>	Impact of Industry 4.0 on Labor Productivity in Slovak Republic
8.	12:50 – 13:10	<i>Zdenka Kádeková et al.</i>	The impact of packaging on consumer behavior in the private label market – the case of consumers under 25 years of age
9.	13:10 – 13:30	<i>Lukas Kakalejcik</i>	Can negative word-of-mouth have any impact on brand sustainability?
10.	13:30 – 13:50	<i>Martin Mudrik</i>	<i>Comparison of Influence of Selected Viral Advertising Attributes on Shopping Behavior of Millennials – Empirical Study</i>
11.	13:50 – 14:10	<i>Ludovít Nastisin et al.</i>	Relations between post engagement and post types on Facebook – empirical study of selected Airlines
12.	14:10 – 14:30	<i>Elena Gregova et al.</i>	Business Environment Quality Model in the SME Segment
13.	14:30 – 14:50	<i>Katarina Valaskova, Maria Kovacova</i>	Alter Ego Only Four Times? The Case Study of Business Profits in the Visegrad Group
14.	14:50 – 15:10	<i>Svitlana Bilan, Olena Shyshkina</i>	Decent work in transitive economy: problems and perspectives
	15:10 – 15:40	<i>Final discussion</i>	

4.7.2020: **SPECIAL SESSION OF EFMSA: 14.00 – 19.10 Hotel Park Plaza Histria**

Chief of the Section: Prof. Dr. Jaroslav Belás

No.	Time	Author	Topic of the article
1.	14:00 – 14:20	<i>Richard Fedorko</i>	Relation study of selected engagement indicators of brands in the social network Facebook
2.	14:20 – 14:40	<i>Beata Gavurova et al.</i>	Gender aspect of perceived health status in terms of economic productivity
3.	14:40 – 15:00	<i>Versavel Teceleab Haile et al.</i>	Students' stereotypes of instructors in higher education in Ethiopia
4.	15:00 – 15:20	<i>Maria Holotova et al.</i>	The impact of environmental responsibility on changing consumer behaviour – sustainable market in Slovakia
	15:20 – 15:40	<i>Coffee break</i>	
5.	15:40 – 16:00	<i>Viera Ivankova, Beata Gavurova</i>	The impact of the minimum wage on smoking in selected OECD countries
6.	16:00 – 16:20	<i>Andrea Komínková et al.</i>	Breaking Food Safety and Quality Standards in EU
7.	16:20 – 16:40	<i>Pavol Kral, Katarina Janoskova</i>	Interdependence of Selected Socio-Demographic Characteristics of Consumers and Consumers Preferences towards Brands
8.	16:40 – 17:00	<i>Zdenka Musova et al.</i>	Environmentally responsible behaviour of consumers: Evidence from Slovakia
9.	17:00 – 17:20	<i>Maria Olearova</i>	An analytical view of consumer preferences of digital devices in the aspect of the purchasing process in the online environment
10.	17:20 – 17:40	<i>Petra Partlova et al.</i>	Title Clustering as the tool of determining Economic potential of rural areas
11.	17:40 – 18:00	<i>Premysl Pizar, Maria E. S. Mazo</i>	Controlling, communication and corporate culture – the opportunity for SMEs
12.	18:00 – 18:20	<i>Andrej Přívara</i>	Asylum seekers and refugees in Austria
13.	18:20 – 18:40	<i>Martin Rigelsky, Jaroslav Gonos</i>	Is smoking rate lower in innovative countries? Empirical study linking innovation output and selected smoking indicators in a sample of OECD countries
14.	18:40 – 19:00	<i>Miroslav Pavlak, Premysl Pizar</i>	Strategic Management Influence on EU SME Performance Empirical Study
	19:00 – 19:30	<i>Final discussion</i>	

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The January Anomalies on CEE Stock Markets

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Abstract. In contradiction to the efficient markets theory, the stock markets are often impacted by various calendar anomalies that disrupt the “random walk” behaviour of stock prices. This paper investigates the presence of two of them, the January effect and the January barometer, on the stock markets of the Central and Eastern European (CEE) countries. The results show, among other things, that a statistically significant January effect impacts the Estonian, Lithuanian, Hungarian, Czech, Romanian and Latvian stock markets. On the other hand, it is possible to talk about a statistically significant January barometer in the case of the Latvian and Lithuanian stock markets.

Keywords: calendar anomaly, January effect, January barometer, CEE, stock market

**Analysis of the impact of public relations on the change in voter behavior of consumers
(voters) in the Slovak Republic**

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Abstract. Public relations are intended to positively influence development in society by aligning one's own interests with those of the public. Objectives of public relations in terms of politics focus on building image, securing market share or increasing the degree of consumer (voter) conviction. Political parties should inform the public of their activities on the basis of truthfulness and without any distortion. The aim of the paper is to theoretically summarize of the issue of public relations and differences between public relations and advertising, as well as an analysis of the impact of public relations and public relations tools on the change of voting behavior and decision-making of Slovak consumers (voters). Based on the theoretical ground stressed out in the literature review, an empirical study was carried out based on a research 362 in Slovak consumers (voters). The primary information was the actual collection. The sample consisted of 362 respondents. The obtained primary data were processed in the statistical program and the confirmation or rejection of the stated hypothesis confirmed the method Pearson's Chi-squared test. The subject of the research were consumers living in the region of eastern Slovakia. The results of our research show that there are statistically significant differences in the perception of tools and methods of public relations depending on the education of respondents. The results of our research can be beneficial for several target groups, namely marketing managers in the political field, political parties, political candidates, not only in the region of Eastern Slovakia but within the framework of the whole Slovakia. At the same time, they can serve as a source of information and as a basis for deciding and establishing the right tools of public relations in promoting political parties and political candidates.

Keywords: public relations, consumer, image, political marketing, advertising

**Analysis of the impact of advertising on the change of voter behavior of consumers
(voters) in the Slovak Republic**

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Abstract. At present, advertising is an integral part of the promotion and competitiveness of every company operating on the market. In political marketing, advertising holds an honorable place because political parties, as well as political candidates, need to become aware of their permanent and potential voters. Advertising in any form is a must in political marketing. In political marketing, an interesting and successful ad can still "shuffle the cards" and change the final results. The aim of the work is also the analysis of the influence of advertising and marketing communication on the change of behavior and decision-making of Slovak consumers (voters). The primary information was obtained by the actual collection. The subject of the research were consumers living in the region of eastern Slovakia. The obtained primary data were then processed in the statistical program and Pearson's Chi-squared test and Cramer's V were used to confirm or reject the established hypotheses. The results of our research can be beneficial for several target groups, namely management, political parties, political candidates, not only in the region of Eastern Slovakia but within the framework of the whole Slovakia. At the same time, they can serve as a source of information and as a basis for deciding and establishing the right tools of marketing communication to promote political parties and political candidates.

Keywords: advertising, voter behavior, consumer, marketing communication, Slovak republic

Consumer approach to the waste of food in selected EU countries

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Abstract. The paper deals with the issue of food waste as a part of consumer behaviour. The process takes place under certain socio-economic conditions. Based on available data about amount of food waste and selected economic indicators from all 27 EU countries, in 2012, the positive relationship between the amount of food waste and GDP per capita and the negative relation to the price food index were verified by using a regression analysis. Due to the absence of conceptual definitions and methodology for monitoring quantity of food waste, the attention is focused on monitoring the factors that affect consumers when purchase the food and post-buying behaviour with food. Survey focused on the subjective attitudes of consumers was carried out in two EU countries - the Netherlands and Slovakia. These countries are members of the EU and differ in their natural, cultural and socioeconomic influences. Based on similarity of consumer behaviour as a result of cluster analyse, the segments are defined to address them more effectively in order to reduce the amount of wasted food with negative consequences for the environment. The diversity of segments in the selected countries shows that factors affecting consumers in wasting cannot be unified for the countries, they are country-specific.

Keywords: consumption behaviour, wasting of the food, food waste, causes of waste, consumer behaviour factors, segmentation

Impacts of Informal Knowledge Sharing (Workplace Gossip) on Organisational Trust

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Abstract. The relationship between organisational trust and informal knowledge sharing is a rarely researched area. This is especially true in the case of workplace gossip, which acts as a channel of informal knowledge sharing. The aim of the research is to point out that although there is a strong positive relationship between organisational trust and knowledge sharing, the special form of informal knowledge transfer/sharing (workplace gossip), refuting earlier research findings, does not always produce a positive effect. In the first part of the two-phase quantitative research (it was done in 2019), trust and its conditions, tools and their place in the organisational hierarchy were identified through questionnaire surveys, and then the existence of informal knowledge transfer/sharing (workplace gossip) and its impact upon organisational trust were analysed. The hypotheses were tested on the basis of an own theoretical model using one and multi-variable statistical methods with the SPSS 25 and NVivo 12 content analysis software. The results show that while confidence building is supported by high quality real-world professional knowledge transfer/sharing, but workplace gossip, especially including fake information, has the opposite effect, which negatively influences organisational performance.

Keywords: information, informal knowledge transfer/sharing, quantitative research, trust, workplace gossip

Digital skills: new possibilities of labour market development in emerging economy

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Abstract. The increasing intensity of the information technologies (IT) use causes an increasing need to develop digital skills of the population. At the same time, according to the data of the UN and the International Telecommunication Union, the readiness of the population of most countries to accept this modern challenge in their own activities is insufficient: even in the most developed countries (OECD groups) 56% of the population do not have IT skills. In terms of the unprecedented IT development, it is predicted that up to 90% of work places will be inevitably connected with their usage by 2030. Thus, the importance of developing information skills at different levels is growing, as only adaptation to change can provide opportunities for successful employment. However, as it is proved in our research in emerging economy, such as Ukrainian economy, development of digital skills is unsatisfactory and slow. As a consequence, insufficient level of all digital skills (basic, standard and advanced) leads to appropriate results in employment. Particularly, the higher level of overall level of life success self-esteem as well as the higher remuneration level are typical for groups of population with more developed digital skills. These results are obtained in authors' sociological review conducted in two groups of respondents - students and their parents. Considering new possibilities of distant employment via digital platforms which are growing steadily nowadays, it is important to develop digital competencies of the population of all age groups. The most important measures in this direction is development of the cooperation of universities with IT firms and clusters, including adult education.

Key words: digital skills, digital competencies, employment, information technologies, labour market

Decent work in transitive economy: problems and perspectives

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Abstract. In transitive economy dissatisfaction with work has negative impact not only on personal motivation to work, but also on the whole labour market and socio-labour relations via emigration caused by violation of rights for dignity in work. To measure decent work, researchers mostly use the system of indicators developed by International Labour Organization (ILO). However, it is proved that this approach has a practical value mainly for cross-countries comparisons as well as analysis of dynamics of decent work at the level of the country or region. In enterprises this system is adopted by authors via transformation of indicators available for microlevel analysis. The novelty of the research is determined by using of modified system of indicators and standard values of proposed indicators. This, in turn, allows to improve the theoretical and methodological background of decent work analysis by means of new indicator - taxonomic indicator of the shortage of decent workplaces. To calculate it we employ the taxonomic analysis approach and relative specific indicators of compliance with standards of decent work in specific dimensions. Practical approbation of the proposed method investigated in group of Ukrainian enterprises allows to conclude its practical value as it is in line of stakeholders interests, strategic pillars of decent work defined by ILO (full and productive employment, rights at work, social protection and the promotion of social dialogue) and corresponds to principles of justice in labour sphere. Application of this method in order to monitor ensuring of accepted labor standards can reveal possibilities for social dialogue improvement and increase of motivation of employees and economic effectiveness and competitiveness of enterprises consequently.

Key words: decent work, employment, labour rights, motivation, taxonomic analysis

Influence of Age on Selected Parameters of Insolvent Enterprises

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Abstract. As natural in the market economy, companies are forced to leave the market when they are not able to survive anymore. This paper is focused on the age structure of the companies in default. The age is considered to be the time period between corporate establishment and insolvency declaration. The paper analyses if companies which report financial accounting statements have different age structure than non-reporting entities. Second, the analysis points out if corporate financial standing differs according to the age structure observed. Using descriptive statistics tools, the observed relationship between the company age and the frequency of insolvency cases is expressed. The evaluation of the financial standing is based on a ratio analysis. The results show there are not significant differences in the age structure between the reporting and non-reporting enterprises. Values of financial indicators seem to be also quite independent on age structure. The paper provides explanations and brings a classification of these reasons causing specific differences observed. It is a distinction between reasons due to sector specificities and partly due to the specifics of the current business environment in the Czech Republic.

Keywords: corporate insolvency, age of the enterprise, disclosure discipline, construction industry, Czech Republic

Economic Evaluation of Effectiveness and Rationality of Domestic Raw Materials Using in Slovakia

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Abstract. For research articles, abstracts Raw materials provide profit for owner, state and mining company, as well as single region. Mentioned means that problem of evaluation of raw material deposits is very actual and necessary area. Presented contribution evaluates social and economic impacts of mining, analyzed by chosen macroeconomic indexes in individual regions of Slovakia. From the view of social and economic impacts of mining there was important to follow up mainly employment and wages, to search development and placement of mining companies in Slovakia, influence of mining industry to GDP, employment and wages. According to the results of analysis there is obvious that permanently sustainable development of Slovakian position of natural environment and using of raw materials in Slovakia is not sustainable from the long-term view. Results of analysis shows that mining activity is characterized by technologically severity and high rate of human work, and by this way with regard to costs structure it presents important source of employment.

Keywords: raw material base, resource policy, economic and social influence, GDP, unemployment, Slovakia

Trend of Raw Material Growth in Connection with Other Industrial Sectors

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Abstract. Due to globalization all industrial sectors are mutually connected. To provide economic growth there is necessary to regard and evaluate risks in various industrial activities at the level of business activities management. The goal of the presented contribution is to search a position of raw material using in industries and its development trend from the view of growth rate, in connection to the growth of other industries. Research had been done through growth rate from the view of sales and revenues and evaluation of business risk. The results show there is the stable or improving character of the mining industry. The results of the contribution are useful for the determination of raw materials policy of the state and providing long-term prosperity and contribution of industries to the national economy. Future research can be extended to other macro-economic indicators, influencing the competitiveness of the sectors.

Keywords: economic growth, rate growth of sales, business risk, industries, raw materials, Slovakia

The attitudes of entrepreneurs of the small and medium-sized enterprises sector to key business risks

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Abstract. The article concerns one of the basic, and at the same time the most significant internal processes in every enterprise, which is the importance of the risk management process. The research results, which included a sample of entrepreneurs representing the SMEs sector in Poland, focused primarily on presenting their attitudes towards specific types of risk. An attempt was made to identify risk areas and create a hierarchy of key business risks in the sector under examination, referring to both problems that may arise in the external and internal environment. Based on the research, exogenous and endogenous business risk factors were identified. The study also presents entrepreneurs' opinions on possible key threats and issues regarding the approach to risk, and in particular on the methods of its identification, assessment and management of the identified type of risk.

Keywords: risk, risk management, small and medium-sized enterprises sector

Chinese High-Tech Foreign Direct Investments in the EU – Trends and Policy Responses

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Abstract. The goal of this paper is to examine the trends of Chinese high-tech acquisitions in the EU countries, describe the policies that these acquisitions prompted on the level of member countries and the level of the EU and to analyze the effects of these policy responses. We try to fill the research gap that has occurred in this field and which will be of considerable importance in terms of international trade in current conditions of the turbulent and unstable environment in the world economy. The results of our research clearly show an increasing number of takeovers of European companies in the high-tech sectors, especially in the big member states such as Germany, France, or the UK. This created a backlash from the European policymakers that led to an introduction of tighter screening regimes in many EU member states and the creation of a common EU framework for FDI screening. At this point, it is hard to evaluate the complete effect of this new framework, but it must be noted that 82 percent of the Chinese acquisitions made in 2018 would fall under at least one criterion of the new EU framework. Our findings provide sound recommendation for EU countries and their public authorities targeting to control Chinese OFDI and limit the acquisition of local companies in sensitive industries. On the other hand, we expect that the ongoing COVID-19 global pandemic will cause deep questions in the global economy and the coming recession will put at least a temporary halt on Chinese acquisitions of foreign companies. But it is also possible that Chinese investors will try to take over financially vulnerable European companies.

Keywords: Chinese OFDI, high-tech acquisitions, EU, common FDI screening framework, strategic investment, global trade

Parallels and Differences in Earnings Management of Visegrad Four and Baltics

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Abstract. Earnings management is a globally used tool for long-term profitable enterprises and for the apparatus of reduction of business risk. This phenomenon belongs to the integral and fundamental part of their business finance. The aim of this article is to detect the parallels and differences in earnings management of Visegrad Four and Baltics by times series analysis. This econometric investigation uses the observations of earnings before interest and taxes in financial modelling. Our findings confirm the significant existence of earnings management in both analyzed groups, based on a quantitative analysis of unit root and stationarity. The managerial activities are purposeful, which is proven by the existence of no stationarity in the time series and a clear occurrence of the unit root. In addition, the results highlight the significant years of changes and trends in the development of earnings management of Visegrad Four as well as Baltics, based on homogeneity analyses.

Keywords: Baltics, business finance, earnings management, time series analysis, Visegrad Four

CART-based Financial Distress Prediction Model for Slovak Companies

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Abstract. Over the last decades, many financial distress prediction models have been created all over the world. Usually, these models are not very useful for Slovak companies because of their lower accuracy. Dataset consists of the values from 2016 to 2018 of the most important financial ratios that may affect the financial health of more than 100,000 Slovak companies obtained from database Amadeus. The main aim of the article is to form financial distress prediction model. The model reveals the financial risks of Slovak companies and to form a prediction model, which is done by prediction of companies' financial distress in conditions of Slovak economics. Realising the CART algorithm, models for prediction of companies' financial distress one year and two years in advance were created. Developed models achieved the overall accuracy of 87.3% and 91.9%. Obtained results are important for companies themselves, but also for their business partners, to eliminate financial and other corporate risks related to the financial distress situation of the companies.

Keywords: CART, financial distress, financial ratios, prediction model, prediction ability

Differences in the financial performance between the various categories of hotels in the Visegrad Group countries

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Abstract. In market economy, the financial health of businesses is one of the main determinants of achieving business objectives and building a competitive advantage. The objective of the study is to evaluate the difference in selected financial indicators between the categories of hotels in the Visegrad Group countries. This objective was achieved by testing the differences of selected financial indicators (CF, EVA, ROE, ROCE, ROA, ROS and many others) in hotel categories (two- to five-star hotels). Hotel category data (stars) were collected from Booking.com, financial outcomes were obtained directly from the financial statements of the analysed hotels. The test of difference was carried out by non-parametric tests (Kruskal-Wallis test, Wilcoxon test). Statistically significant differences were found in CF, EVA, ROS, Profit margin, EBITDA margin, EBIT margin, Solvency ratio Asset, Turnover time, Current Liabilities Turnover. The outputs of the analyses reveal that hotels of a higher category show better financial outputs. Therefore, in order to increase the financial performance, lower category hotels should be inspired and focused on the activities of higher category hotels. The study points to the fact that the variable of hotel category should be taken into account in any analytical processes focused on the financial health of hotels.

Keywords: hospitality, financial health, profitability, disparities

Relation study of selected engagement indicators of brands in the social network Facebook

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Abstract. Our study deals with the analysis of selected engagement indicators of brands on the social network Facebook and also provides a theoretical overview of existing research in this area. The main aim is to determine the significance and degree of interconnection of "liking", "sharing" and "commenting" on Facebook in further understanding of text, image and video posts. This aim was fulfilled through the analysis of the connections in question using the Spearman correlation coefficient ρ . Data was obtained on Facebook pages of four companies placed among the top 25 world brands. A total of 2,160 posts were analyzed, consisting of 590 image, 1,121 video and 449 text posts. In the light of the above, we focused on likes, shares and comments. The most significant links were discovered for likes and shares in all the three forms of Facebook posts. Commenting proven significant only in one case (video post), and only when accompanied by sharing. Even in this case, there was no strong link discovered. The most significant shortcoming is the file itself, which contains extreme values. These findings could be used in practice as they open up further questions, especially in case of comments.

Keywords: Facebook, engagement, metrics, analysis, context

Effort expectancy and social influence factors as main determinants on performance expectancy in use of e-banking

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Abstract. The aim of this study is to identify the impact of expected effort and social influence factors on expected performance in the context of the use of internet banking. The study aims to explain how these elements affect user behavior. The study adapts constructs and definitions from the UTAUT model in the context of adaptation of online banking technology. The UTAUT model, which is based on the widespread principle of the TAM Technology Acceptance Model, consists of four key constructs that influence the behavioral intent and real use of technology. Performance expectancy is the degree to which the use of technology helps the consumer to perform certain activities. Effort expectancy is the equivalent of the ease with which consumers use technology. Social effect means the degree to which consumers believe that their loved ones (family and friends) think they should use the technology. According to UTAUT theory, expected performance, expected effort and social dimension influence the intention to use technology, while behavioral intention and facilitating conditions determine the use of technology. In our research, we focus on constructs that shape the intent to use internet banking technology.

Keywords: internet banking, UTAUT model, online bankong technology

Gender aspect of perceived health status in terms of economic productivity

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Abstract. Health affects both individual and economic life, and this fact is undeniable. Several studies confirmed the relationship between exact health outcomes (such as mortality and morbidity) and economic outcomes. The study highlights the importance of perceived health status in economic dimension and points to health inequalities. The main aim was to assess the relationship of gender inequalities in perceived health status and economic productivity of OECD countries. The analyses included the variables of economic productivity and self-rated health status in the optics of gender-related inequalities during the period of 2010-2016. The analytical data processing used methods of descriptive analysis, analysis of differences and methods of causal relationships - regression and correlation analysis. The findings confirmed that gender inequalities in perceived health status have a significant impact on the productivity of economies. The findings also revealed that men report better health than women. The study emphasizes that policy makers should focus on reducing gender health inequalities and recommends the actions in the field of health prevention and health education. Reducing the exact health inequalities between men and women can lead to reduced inequalities in perceived health, which will be reflected in increased economic productivity based on the results of this study.

Keywords: health inequalities, economic productivity, OECD, gender, perceived health status

Business Environment Quality Model in the SME Segment

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Abstract. The aim of the paper is to construct and interpret a structural model of correlations between the business environment quality (QBE) and factors determining the quality of business environment. In regards to the defined aim, we have designed an online questionnaire in order to gain attitudes from enterprises operating in the SME segment. The sample consists of 329 enterprises from the Slovak Republic. The authors applied a confirmatory factor analysis and a structural equation modelling to quantify the regression and causal correlations between the QBE and selected factors. Research results have yielded interesting findings. The selected economic, political, social and technological factors have an impact on the QBE in Slovakia. The most important factor is the macroeconomic environment. This factor is followed by the monetary policy and interest rates. The third most important factor is the state regulation and business support. The research conclusions are mainly intended for state-owned business support organizations, business associations and enterprises.

Keywords: entrepreneurship, factors, quality of business environment

Impact of Tax Benefits and Earnings Management on the Capital Structure Across V4 Countries

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Abstract. The issue of capital structure is among the most commonly discussed field in the corporate finance theory. By optimizing the capital structure, it is possible to achieve an increase in the company value and increase the company flexibility and competitiveness. Economists have for more than half a century seen tax benefits (tax shields) as a capital structure determinant. Nonetheless, leverage is also influenced by earnings management, which can significantly reduce information asymmetry between stakeholders when used correctly. This paper examines the influence of the tax shield and earnings management on a corporate capital structure in V4 countries. In order to determine the influence of the tax shield and earnings management, panel data model was used. Net sample consisted of 10 627 companies from the V4 countries from 2014-2017. The results of the model indicate that corporate behavior in the area of capital structure follows Pecking order; short-term trade credit is the most commonly used liability. The interest tax shield is of little importance for deciding between debt and equity, while the non-debt tax shield is negatively correlated with debt. Furthermore, an inverse correlation between debt and earnings management as measured by the modified Jones model indicates that debt monitoring reduces agent costs and reduces the application of earnings management techniques.

Keywords: tax advantage, earnings management, capital structure determinants, V4 countries

Impact of Industry 4.0 on Labor Productivity in Slovak Republic

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Abstract. The Fourth Industrial Revolution bears major technological, demographic and socio-economic changes affecting nearly every area in business. Within the human resources area, both a surplus of labor and the creation of brand new professions are to be expected. Industry 4.0 concept significantly affects labor productivity in individual countries and does not miss Slovak Republic either. All segments of labor market, not just industrial enterprises will be affected. The aim of the presented study is to analyze the possible development of labor productivity in Slovak companies and to determine its development in the next period, considering the decreasing number of working-age population in terms of the fallouts on creation and termination of jobs and occupations. The questionnaire carried out in enterprises in Slovak Republic was a key research tool being used to analyze the results of the survey. The Industry 4.0 concept will significantly affect the increase in labor productivity not only in world economy but also in Slovak Republic. In particular, the recommendations aim to draw attention to changes in jobs structure as well as the need to reform the education system because of Industry 4.0 requirements.

Keywords: Industry 4.0 concept, labor productivity, international economics, social and economic development, automation and robotics implementation, new jobs creation

Students' stereotypes of instructors in higher education in Ethiopia

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Abstract. No recent study has yet examined gender stereotypes on service expectations using the SERVQUAL model in Ethiopia. The model has been extensively used to measure perceived service quality (using both customers' expectation and perception) and service performance (using customers' perception only). However, there is a scarce of scientific research that investigates stereotypes in service settings using customers' expectations only. The purpose of this paper is to investigate if students hold stereotypes and their expectations vary across the gender of the instructors. This study was conducted using the SERVQUAL model on 450 university students. First, students were asked to rate their expectations on female and male instructors over a specific five dimensions of the service quality namely tangibles, reliability, responsiveness, assurance, and empathy. Consequently, no significant difference was observed across the two genders. However, when the students were asked to rate their general expectations towards female and male instructors, students showed a significantly lower expectations of female instructors than male instructors. The result of this study indicated that there is a contradiction on students' expectation which this study concluded that it might be caused due to preconception or stereotypes against female instructors.

Keywords: expectation, service quality, instructors, students, gender, stereotypes

The impact of environmental responsibility on changing consumer behaviour – sustainable market in Slovakia

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Abstract. Our planet is faced with numerous social and ecological challenges that we have to resolve as soon as possible through a combination of innovative ideas at local conditions. One of the big challenges of many startups, retail chains and consumers themselves is packaging waste reduction that involves activities mainly aimed to waste prevention efforts. The targeted impact of sustainability information on consumers purchase intentions play a key role in shaping their future decision-making and the Slovak market is no exception. Relatively a new concept 'zero-waste' regarding to packaging waste prevention directly during shopping has been given the green light thanks to behaviour change approaches of Slovak eco-conscious consumers. Zero-waste is a modern concept which inspires people to be more environmentally friendly same as the vision to build a society that enjoys a sustainable rubbish-free lifestyle. Presented paper focuses on the current situation of zero-waste stores in Slovakia and identifies the level of environmental awareness of Slovak consumers according to shopping habits. The main aim of paper is to highlight environmentally friendly practices for zero-waste stores as a new developing concept in condition of Slovak market as well as to define consumers' experiences. In order to meet the objectives of the paper, own marketing research was conducted (783 respondents from the Slovak Republic). The research findings confirm that consumers' experiences, awareness and sustainable shopping habits are at a good level but there are significant differences in attitude between consumer age generations, gender and place of living. For statistical processing of the results, we used Levene's test, Bartlett's test, Kolmogorov-Smirnov Test and Chi-Square Test of Independence.

Keywords: environmental responsibility, packaging-free, sustainability, zero-waste

The impact of the minimum wage on smoking in selected OECD countries

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Abstract. The amount of the minimum wage is in some sense an indicator of the economic level of a country. There are considerable differences in this indicator in OECD countries. At the same time, the minimum wage is also an instrument that largely regulates people's behavior and affects different areas of life. Aim: The primary objective of present study is to determine the impact of minimum wage on selected smoking-related indicators in a sample of countries of the Organisation for Economic Cooperation and Development (OECD). Sample: Four variables entered into the analytical processing, the minimum wage, daily smokers (age 15+), daily smokers (age 15-24), and tobacco consumption in grams per capita (age 15+). Design and Measurements (Methods): The analysis was carried out in two steps - descriptive analysis and analysis of impact. Descriptive analysis of selected variables was carried out from an overall perspective as well as between individual countries, when the countries were divided into quartiles by values of variables. Simple regression analysis - Ordinary Least Squares (OLS) model was used for analysis of impact. Results: The average rate of population of daily smokers aged 15 and over was 18.4%, tobacco consumption per capita was 1417.7g, the population of daily smokers aged 15-24 was 16.5% and the minimum wage was 6.6 USD. Countries with the highest percentage of daily smokers aged 15 and over include Estonia, Greece, Hungary, Chile, Latvia, Turkey. In terms of tobacco consumption, countries such as the Czech Republic, Greece, Japan and Korea dominate. Countries with a high percentage of smokers aged 15 to 24 include the Czech Republic, France, Hungary, Latvia, Spain. The lowest wage was found for countries like Estonia, Hungary, Chile, Latvia, Lithuania, Mexico and Slovakia. The impact of the minimum wage was identified in all three assumed relationships. Conclusions: The present study highlighted the importance of the impact of the minimum wage on selected smoking-related indicators in selected OECD countries. In all three cases, there was a negative relation, thus, smoking can be expected to decrease if the minimum wage is increased.

Keywords: smoking addiction, smokers, minimum wage, OECD

Models of Dependencies in Innovation in the European Union

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Abstract. Innovation has become one of the main strategic issues for all industries worldwide, as it is an imperative element for the development of any business. Factors, such as labor and financial mobility, as well as registered research and development expenditure in different fields, have contributed significantly in recent years to the expansion of innovations, emphasizing the importance of several domains for innovation creation. By using panel regression models we analyzed the impact of six economic factors, such as job-to-job mobility, employment in knowledge-intensive activities and research and development by sectors of performance, on the dependent variable, namely European patent applications to the European Patent Office by priority year in order to estimate the association of these independent factors with the variable measuring the innovation degree at the level of the European Union for the period 2009-2015. The regression revealed the significant relationship of more independent variables, such as the research and development by sectors of performance, the job-to-job mobility in knowledge-intensive activities, as well as venture capital investments on the dependent variable, namely the European patent applications to the European Patent Office, underlying their significance in the development of the latter one. Innovation has been mostly approached from a theoretical point of view in the scientific literature so far and less from a statistical point of view, where the relationship of measurable indicators of innovation and potential contributing factors were analyzed. The present paper analyses panel regressions models of six economic factors, as mentioned, on innovation measured through the variable European patent applications to the European Patent Office, which have not been previously explored in other papers.

Keywords: innovation, venture capital investment, European Patent applications, value creation, research and development, Panel data regression

A new competitive advantage in international trade

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Abstract. Existing research has shown that bicultural, bilingual individuals are more creative, efficient and adaptable than monolingual individuals. Similar findings also apply to an individual's ability to function effectively in new cultural environments according to the benchmarks of so-called cultural intelligence. As such, it could be expected that there is a significant link between both of these indicated constructs. It is therefore surprising that the relationship between linguistic proficiency in one or two languages and cultural intelligence has not yet been the subject of any detailed research. This study is a response to the existing deficit and it provides new findings which are of significance to the areas of management and marketing communication. The study builds on earlier research and shows that a positive correlation exists between both variables, i.e. the higher the level of knowledge of a foreign (non-native) language, the higher the cultural intelligence value (H1). This relationship has then been innovatively analysed from the point of view of two groups: monolingual individuals and bilingual individuals who also speak a second (foreign) language at the level of a native speaker in addition to their mother tongue. We anticipate that the correlation between language proficiency and cultural intelligence will be stronger for the group of bilingual respondents (H2). The theoretical model of the relationship between these two latent variables, i.e. the level of linguistic proficiency and cultural intelligence, was tested using the SmartPLS-SEM 3 program. The output from the research has confirmed that a positive relationship exists between both constructs, but it did not indicate a statistically significant difference between the group of bilingual and monolingual individuals.

Keywords: cultural intelligence, language proficiency, bilingualism, biculturalism, PLS-SEM

The impact of packaging on consumer behaviour in the private label market - the case of consumers under 25 years of age

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Abstract. The submitted paper aimed to find out the influence of the packaging on consumer purchasing decisions in the segment of yoghurts, while our attention was drawn on the consumers with age under 25 years. To achieve the mentioned aim, we have used the methods of survey, structured questionnaire (realized on the sample of 549 randomly chosen respondents)) and blind test (realized on the sample of 20 respondents testing the four yoghurts – 2 yoghurts of traditional brands and 3 yoghurts of private labels). For a more in-depth analysis of the obtained results, four hypotheses were set out and tested with the use of statistical methods of Pearsons' Chi-Square Test, Friedman's test, Mantel-Haenszel Chi-Square Test, Phi Coefficient, Cramer's V Coefficient and correspondence analysis. The results of the survey proved that almost 58% of respondents buy private labels sporadically. In terms of frequency of purchase, it is possible to say that our respondents buy private labels quite often, as more than 20% of respondents reported buying them multiple times a week, 18.21% of respondents buy them once a week, and almost 18% of respondents buy them multiple times a month. In terms of the perception of the quality of private label products, what they evoke in consumers or reasons for their purchase, eventually non-purchase it can be said that our respondents perceive private label products as good and adequate, in most of them they evoke the impression of adequate quality at a reasonable price, the decisive factor on which they buy them is a combination of reasonable price and quality and the reasons why they do not buy them are a high price, low quality and lack information about the exact producer.

Keywords: yoghurt, private label, traditional brand, consumer preference, factors leading to purchase, young consumers

Can negative word-of-mouth have any impact on brand sustainability?

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Abstract. The main objective of this paper is to estimate the impact of negative word-of-mouth towards the brand/product sustainability. Approximately 100.000 product reviews were collected in six selected categories in the Slovak market and the quantity of positive and negative word-of-mouth (PWOM/NWOM) was analysed. It was found that there are approximately 15 times more positive reviews than the negative ones. Afterwards, all worst- and the best-case scenarios were modelled for their impact based on the results of previous studies. It was found that in both cases, the direct reach of PWOM is higher than that of NWOM. On average, in worst-case scenario, the reach of PWOM is 3.93 times higher than the reach of NWOM. In best-case scenario, the reach of PWOM is 8.85 times higher than the reach of NWOM. According to the results, brand managers should focus on getting more positive reviews and thus positive word-of-mouth as it may have a stronger effect on the sustainability of the brand.

Keywords: word-of-mouth, brand perception, brand management, brand reputation

The influence of innovation potential on the economic performance of European member states

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Abstract. The economic performance and growth of countries accompanied by globalization and integration processes is influenced by innovation potential based on its determinant factors. This paper is aimed to determine the influence of innovation potential factors on the economic growth within European member states for the period from 2010 to 2018. To evaluate this influence, the methodology of the creation of multiple regression models are applied. Secondary data from the Eurostat, the World Bank, and the European Patent Office database are used to process the evaluation. Innovation potential is analyzed using various input and output indicators, such as high-tech exports, patent granted, gross domestic expenditures on R&D, tertiary educational attainment, government expenditures on education, foreign direct investment, gross fixed capital and others. The economic performance and growth is quantified using two selected macroeconomic indicators-dependent variables, such as real GDP per capita and GNI per capita in the relation to five selected innovation determinants-independent variables, such as high-tech exports, gross domestic expenditure on R&D, government expenditures on education, direct investment and tertiary educational attainment. Based on our findings, the statistically significant influence of these five innovation determinants on economic growth was confirmed. Therefore, research hypotheses were accepted. In this context, the most significant influence was determined in the case of gross domestic expenditure on R&D. In accordance with the research results, it can be stated that national policymakers should focus on supporting innovation conditions, especially to increase R&D expenditure in all economic sectors, with the aim to achieve sustainable economic growth. This article is one of outputs of project VEGA No. 1/0279/19 “*Model approaches to increase performance and competitiveness in the European area in the context of sustainable development*”.

Keywords: innovation determinants, economic growth, EU (28) member countries, multiple regression analyses

Earnings Management in V4 countries: The Evidence of Earnings Smoothing and Inflating

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Abstract. The managers of companies have both the motivation and the possibility to implement judgements and subjective estimations in the process of the preparation of financial statements, which lead to opportunistic management of the reported earnings. The reason of this research is to assess if the earnings management is the common practice of enterprises. A novel approach of the selection process to assess the ability of selected earnings management detection models was applied. The focus is on linear regression models, which are judged by adjusted R squared, predicted sign of variables, standard deviation of the variables and significance level of the model and its variables. To highlight discrepancies and similarities among the countries, the non-parametric alternative of analysis of variance was applied. The research confirmed that enterprises do manipulate earnings, typical is upward manipulation. Furthermore, the research unveiled the extent of manipulation with earnings in unique country samples and thus emphasized the importance of both corporate and national ethical principles and managerial decisions, which affect a corporate financial reporting quality. However, it is increasingly challenging to identify various aspects and incentives which forced enterprises operating at the global level to smooth and inflate earnings to improve earnings presented in the financial statements and to misinterpret financial results.

Keywords: discretionary accruals, earnings management, earnings models

Breaking Food Safety and Quality Standards in EU

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Abstract. The level of meeting EU food safety and quality standards can be discussed as a specific factor of competitiveness for food manufacturers under changing consumer preferences towards a need for increasing a qualitative side within food consumption. EU member countries use an information exchange instrument named Rapid Alert System for Food and Feed (RASFF) sharing information both with public authorities and also consumers. It was notified an increasing number of food safety and quality problems in the year 2019 regarding the industry branch EU NACE 1012 - poultry meat and poultry meat products in CEEC countries. This paper aims at identification of common factors of financial performance for businesses active in aforementioned industry within Visegrad 4 member countries. Authors employ factorial analysis of variance approach for revealing dissimilarities within the exploration of key financial performance indicators for the sample of poultry meat and poultry meat products manufacturers. Sample of poultry meat and poultry meat products consists of different size categories of manufacturers, which were active in Visegrad 4 member countries in the year 2009 and 2017, to cover both the period of economic downturn and the period of economic growth renewal. The source of harmonized secondary corporate financial data was the database ORBIS of Bureau Van Dijk. Presented results support a need for the existence of EU food safety and quality policy both from the consumers' side and side of producers in order to create and sustain the equal and fair competitive environment in this industry.

Keywords: competitiveness, consumer behavior, cost-effectiveness, food safety, financial performance, manufacturers of poultry meat, poultry meat products, quality standards

Slovakia with regard to convergence criteria

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Abstract. The introduction of the euro in Europe is subject to a number of criteria. In 1979, the European Community created the "European Exchange Rate Mechanism", which in short is called the ERM from the initials of the English name. On April 16, 2003, Slovakia, together with nine other countries, signed the EU Accession Treaty in Athens. They also promised to adopt the single currency (the euro). It has been 10 years since the introduction of the euro in Slovakia. Regarding the introduction of the single currency, we can highlight factors that have contributed to the economic recovery experienced in recent years. The aim of our article is to provide a brief introduction to the euro area and present the accession of each country in historical order. Then we presented the general conditions for the introduction of the euro and then went on to the events related to the introduction of Slovakia. Using the data from statistical site Eurostat we choose the Pearson correlation coefficient to indicate the closeness of relationships between the average values of inflation and government deficit and also between the average values of inflation and the public debt. There is a lack of significant relationship between the examined variables in the case of Slovakia. On the basis of the 2018 inflation rate, the introduction would not have been possible, as it was slightly higher (2.5 per cent) than the limit (2.23 per cent). On this basis, we therefore forebelieve that Slovakia has adopted the euro on time, as if it had not done so on 1 January 2009, it would probably have had to wait a few years for the new opportunity. Of course, their results are only indicative and not decisive without taking ERM II into account, but we cannot do so without specific indicators.

Keywords: Slovakia, single currency, inflation rate, government deficit, public debt

International Literature Review of Company Goodwill: 1842 - to present

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Abstract. The issue of goodwill has been a part of the significant economic problems for more than two hundred years. Both, the goodwill creation and its quantification are interdisciplinary, e.g. in accounting, economy, marketing. In general, the value of company goodwill increases the overall value of company in the market. In both, economic theory and practice, this situation can arise where there is a difference between the market value of company and the book value of company. Any debate about goodwill makes sense because the origin of goodwill can be given, but an interpretation of its value will always be a challenge. The main aim of the paper is to provide historical review of scientific literature dealing with the goodwill from 1842 to present. Paper analyses scientific databases – Web of Science, Scopus and Social Science Research Network. Paper methods include descriptive statistics and science maps. Paper works with VOSViewer software.

Keywords: goodwill, literature review, science map

Interdependence of Selected Socio-Demographic Characteristics of Consumers and Consumers Preferences towards Brands

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Abstract. Manufactures as well as sellers are interested in differentiating their offer, as it then becomes more efficient in addressing the target groups. The brand is an essential tool for implementing product policies into consumers markets, and at the same time, it is the carrier of elements of a differentiation. Considering the changing market conditions, determined by globalisation of the economies, and also changing legal environment, competitiveness and, last but not least, the consumer base, the brand management thus have to adopt innovative approaches reflecting the changes. The paper analyse consumers preferences towards brands, in particular, what are the reasons the consumer would replace their preferred brand with another one. The main goal is to analyse the relations between selected socio-demographic characteristics of consumers (age, education, social status) and their preferences towards brands i.e. the reasons they would replace their preferred brand with another one. The major instrument involved in analysing of these relations is the correspondence analysis, which draw on the data from in-depth marketing researches. The results demonstrate the interdependence of different level and intensity with respect to analysed characteristics, and are used to stipulate further recommendations for brand management.

Keywords: socio-demographic characteristics, brand management, branded product, consumer loyalty, correspondence analysis

The consumer storytelling as an element of word-of-mouth communication of nostalgic brands

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Abstract. Nowadays, brand storytelling is an important element of successful brand management on B2C market. Based on brand storytelling, consumers create their own brand stories. Therefore, consumer storytelling becomes an essential component of word-of-mouth communication. The aim of this article is to evaluate the possibility of using the consumer storytelling as an element of word-of-mouth communication of nostalgic brands. The results of own empirical research conducted in 2017 and 2018 on a group of 1000 Polish consumers are presented. The study concerns 24 nostalgic brands of generational and transgenerational character. Research was conducted using quantitative and qualitative research methods. The research results confirm that nostalgic brands - that reflect personal history - generate more stories than their non-nostalgic counterparts. The consumer storytelling is more frequent in case of older respondents. Consumers create stories about nostalgic brands and are happy to share them. Considering the strength of consumer storytelling, it is worth encouraging consumers to share stories about the brand, which can become an important element of word-of-mouth communication.

Keywords: storytelling, nostalgic brand, word-of-mouth, brand communication, Poland

Auditing and controlling as a tool for SME marketing risk management

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Abstract. The current hyper-competitive environment and rapid marketing tools and techniques bring many opportunities for Small and medium-sized businesses (SMEs), but on the other hand, this business environment is also delivering many threats. SMEs are an important stabilizing economic power in the European Union. SMEs competitiveness and long-term stability are a vital factor for European cohesion and development. The research aims are to analyse the risk management in SME, identify critical risk factors and develop the process of risk management application for SMEs, in the second step to analyse consequences of risk management and explain variables ROA, Auditing, Controlling management, Marketing and Corporate culture, based on research findings increase the effectivity of their interaction with a focus on SME long term stability and competitiveness. For achieving these aims, two research questions and three hypotheses was designed. The research was conducted 2017 – 2020 on sample $n=432$ EU SMEs. The reached data was analysed by statistical method and experimental “in practise” testing. Based on the result and its experimental testing, the model of marketing risk management was designed and in practise testing verified. The findings reached should be used for advanced research and the same for practical use in business sphere.

Keywords: risk management, auditing, controlling, marketing, SME, corporate culture

Patient satisfaction as a tool towards quality improvement in healthcare facilities in the Slovak Republic

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Abstract. Patient satisfaction is an important validator of the quality of healthcare. Proper quantification and interpretation of the quality of healthcare is one of the key prerequisites to find a way to improve it. The aim of this study was to analyze and evaluate patient satisfaction with the provision of services in hospital facilities in the Slovak Republic in 5 years, and to identify strengths on which to build and identify steps to improve services provided to patients in lower rated facilities. The source of data came from health insurance companies, each insurance company collected data separately using a questionnaire with 12 identical questions. The “patient satisfaction” indicator is a summary average of 12 statutory quality indicators in the field of perception of healthcare provision by hospitalized patients. The indicator is formed as a synthetic index of the subjective evaluation of the provider from the point of view of patients covering the evaluation of their satisfaction with care, behavior and information provided by healthcare staff, evaluation of accommodation quality, cleaning of wards and diet, and evaluation of satisfaction with provided care and subjective perception of treatment success. A thorough valuation of the answers to patients' questions and a detailed analysis of the monitored indicators suggest that significant differences in the provision of services to patients do not depend on whether the facility belongs to the private or public sector, but depend on the quality of management and healthcare staff. This suggests that the human factor significantly dominates over services, the quality of which requires the provision of financial subsidies for hospital facilities.

Keywords: patient satisfaction, healthcare, quality improvement

Comparison of Influence of Selected Viral Advertising Attributes on Shopping Behavior of Millennials - Empirical Study

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Abstract. The objective of the study is to evaluate the impact of selected factors of viral campaigns on the consumer behavior of the Millennials customers. This goal was achieved in two steps: in the first step we determined the impact of selected attributes on purchasing behavior in general, and in the second step we compared the impact of the selected research campaigns - the guerrilla campaign of the company 4KA and the viral campaign of the company ABSOLUT. The inputs to the analyzes were obtained through answers from 360 respondents which completed our questionnaire on sample of millennials customers generation (1975-2000) - social generation which collaborate and cooperate, expect technology to simply work, looking for adventure and passionate about values (Smith, Nichols 2015). The survey part of the questionnaire consisted of 8 attributes (Novelty, Relevance, Aesthetics, Clarity, Humor, Emotion arousal, Surprise, Design, Purchase intention). Data were collected based on participants' availability and their will to take part in the questionnaire and quota selection. The PLS PM method was used to assess the impact and the Bootstrap-based parametric method was used to assess the difference in impact. One of the most important findings is that attributes such as Novelty, Relevance, Humor and Surprise significantly affect the purchasing behavior. With regard to the company 4KA, significant impacts were seen in Relevance and Surprise and with the company ABSOLUT, significant impacts were seen in Relevance, Humor and Surprise. When analyzing the difference in the impact, there were no significant differences between the campaigns.

Keywords: viral marketing, guerilla marketing, purchase intention, customer perception, millennials generation, Slovak Republic, partial least squares regression

Environmentally responsible behaviour of consumers: Evidence from Slovakia

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Abstract. Consumers give special importance to higher environmental responsibility as to improve the quality of environment. The aim of this paper is to present the selected results of the examination focused on the Slovak consumers' environmentally responsible behaviour. The frequency of implementing the responsible activities within the circular economy principles was investigated. The environmentally responsible consumer behaviour in the context of selected demographic characteristics of consumers and approaches to environmental issues were also studied. The paper contains the results aimed at consumers' perception and knowledge of eco-labels and the impact on purchasing behaviour too. Secondary data analysis is supplemented by the results of the primary research from November and December 2018, which was conducted via an online questionnaire on the sample of 434 respondents from Slovakia. The obtained data were evaluated by selected statistical methods (Chi-square test, Spearman's correlation coefficient, ordinal regression, factor analysis). Consumers pay an adequate amount of attention to implementation of responsible activities, what suggest positive changes in consumers' perception and approaches to environmental issues. Testing confirmed that statistically significant variables that influence environmentally responsible behaviour of consumers are age, gender, income, number of household members, environmental attitudes and knowledge of eco-labels. Only average knowledge of eco-labels resulted from the research, women's and "full nests" knowledge is better.

Keywords: environmental responsibility, consumer, circular economy principles, environmental purchasing, eco-labels, Slovakia

The Impact of Board Process on Board and Corporate Performance

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Abstract. At present corporate governance is an issues of attention. Frequent takeovers of ownership by business management have prompted the need to set clear business management rules from the side of business owners and at the same time to control whether they are respected. In this paper, we focus on the specific area that is related to the process of corporate governance. We define fundamental tasks of corporate governance bodies and examine how the performance of corporate governance bodies might be influenced by the governance process. The aim of this paper is to examine the relationship between selected characteristics of the corporate governance process and the Board of Directors' ability to perform its core tasks (i.e. Board performance). Our research is carried out through the method of correlation analysis. The data and information on the process of corporate governance as well as performance of governing bodies were obtained by a questionnaire survey. Through binomial logistic regression, we model the impact of selected attributes of the corporate governance process on changing the assets and ROE in the researched companies. We also identify significant board process attributes that affect the change in asset volume and ROE. The success of predicting changes in assets and ROE through the models on the real data and model respondents is aslo tesed. All our predictions are in agreement with our expectations.

Keywords: corporate governance, boards, performance

Relations between post engagement and post types on Facebook – empirical study of selected Airlines

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Abstract. Facebook's ability to influence various aspects of business is becoming more and more visible each year. It is a continually developing marketing platform and communication channel that is no longer easy to ignore if we do not want to lose momentum in when competing, especially in the space of ecommerce. The primary objective of the paper was to evaluate the interaction of users in terms of overall engagement and selected forms of Facebook posts using session analysis. This goal was achieved based on the analysis of Facebook posts of 20 major airlines for 2018. A total of 4,858 posts were analyzed. Dummy regression model and correspondence analysis were used for statistical processing. The dummy regression model output says that image / photo and video posts were most effective in building engagement in airlines, status-based posts were more likely to be to the detriment and hyperlinks left followers indifferent. Also, the results of the correspondence analysis indicate that due to the amount of engagement in quartile terms, the most positively rated posts are video posts followed by image / photo posts, while status posts are the least positive. From the implications of the research, we point out the use of the visual type of content and the insignificance of the number of Facebook followers as a predictor of success. Possible future research direction is also mentioned.

Keywords: Facebook, engagement, content type, dummy regression, correspondence analysis

An analytical view of consumer preferences of digital devices in the aspect of the purchasing process in the online environment

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Abstract. The paper deals with the investigation of the analysis that reveals the impact of digitalization as the development of new communication platforms, which are also changing the consumer's purchasing behaviour in the online environment. The main goal of our research is to identify the consumer preferences in relation to the communication platforms of digital equipment for purchasing in the online environment. Slovakia is a prototype of a country with a relatively high potential for development. Depending on the results of the analysis, we stated that the most preferred device is the notebook for both groups of the surveyed respondents. We did not find statistically significant gender differences. As an impact of innovation, we expect various changes in these preferences, especially in a change to use tablets and smartphones. The analysis has shown that people always purchase via the smartphone, they are the customers with a higher frequency of purchases, and surprisingly customers of generation X, which means that even the older consumers. The paper includes practical implications particularly for business entities, for the reason that knowledge of the options leads to the right set of strategies and will follow the effective achievement of business aims.

Keywords: digital devices, e-commerce, online shopping

Title Clustering as the tool of determining Economic potential of rural areas

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Abstract. The paper focuses on the latter-mentioned part of innovation, both in terms of the methodology and research. The method for determining the innovative economic potential of rural settlements is presented in the paper, defined as the existential and development base for different enterprises. In relation, the paper discusses the issue of quantification of the economic potential of the clusters. The data acquisition is based on secondary data of the LAGs of the South Bohemian region and the data from Ekotoxa. The method for clustering the municipalities by their specifics is supposed to be the most important result of the research, together with defining the areas suitable for innovation processes. Four models - Economic Cluster, Social Cluster, Cluster of Infrastructure and Cluster of Environment - are defined, based on four groups of the variables (economic, social, infrastructure and environmental). A municipality is classified into an appropriate group based on the group (pillar) in which the municipality scored the highest average order. The average order of the municipality in each pillar is calculated as well. The method is followed by a verified procedure for defining the business potential of the clusters. Stepwise backward regression method is used to define the index of progressivity of the economic structure, determining the socio-economic differentiation of the regions in the Czech Republic. Regarding both the methodological procedure and the analytical tool, it is possible to state their suitable choice; the research results are relevant, valid and usable in practice. The activities with high economic and innovation potential in the tested area include transport services, availability of the services, municipal infrastructure, drinking water supply, the occurrence of water bodies and the structure of the population.

Keywords: municipality, economic potential, rural area, cluster, stepwise backward regression

Strategic Management Influence on EU SME Performance Empirical Study

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Abstract. The current hyper-competitive environment brings many great opportunities for Small and medium-sized businesses (SMEs), but on the other hand, this business environment is also hazardous. SMEs are significant economic power and employer in the European Union. Their competitiveness and long-term stability are a crucial factor for European cohesion and economic growth. The research aim is to analyse, how EU SME are operating strategic management, where are the main barriers and opportunities of strategic management usage for increasing SME long-term competitiveness and stability. The secondary aim is to design a strategic management controlling system which should be implemented to SME and be helpful for their long-term future development. On the purpose of the defined aim, two research questions and four hypotheses formulated. The research was operated 2017-2020 based on data from $n=403$ SME. The PAPI method was used for data collection. The reached results and model construction arise from statistical analysis. Throw an experimental testing process the research conclusion was verified. The consequences between defined variables controlling, ROA, turnover, financial analysis and strategic management were explained and also were pointed inserting finding based on the in-depth variable analysis. The research conclusions are applicable in business fields and there are also new research topics arising.

Keywords: strategic management, controlling, SMEs, corporate advantage, competitiveness

Model of raw materials exploitation evaluation for the support of sustainable development in Slovakia

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Abstract. The article deals with the interactions between the basic areas of sustainable development due to the exploitation of mineral deposits in the Slovak Republic. The primary objective is to point out the interaction links of explicitly defined indicators of exploitation of mineral deposits, which have an overall impact on sustainable development in Slovakia. Based on the development tendencies of selected social, economic and environmental indicators, the article defines individual indicators that create the potential for further sustainable development. Accepting all the principles of sustainable development, the article concludes with a model of evaluation of mineral deposits in the field of sustainable development in the Slovak Republic based on the quantification of their interaction links.

Keywords: sustainable development, raw materials, explanation of raw materials, Saaty matrix

Preference for using equity and debt financing in family businesses in the Czech Republic

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Abstract. There is a historically first exchange of generations in Czech family businesses. Either one generation (founders or successors) or two or more generations cooperate in management and board. This serves different views, opinions, and practices for financial management in terms of the preference for the use of equity or debt financing and its specific use. The paper aims to compare and evaluate the preference for the use of equity and debt financing in family businesses with different involvement of generations and the diversity of its allocations for the specific needs of business development. The compilation of theoretical background is emphasized in the literature review. An empirical study was conducted based on qualitative research of 245 family businesses. The obtained primary and secondary data were processed in a statistical program, the hypotheses were confirmed by Pearson's correlation coefficient and descriptive statistics. The subject of the research was family businesses. The research results show that family businesses managed by one generation prefer equity, family businesses managed by the first and second generations prefer debt financing, family businesses managed by the second and third generations prefer equity. The study confirms the dependence of the use of equity and debt financing on the number of generations in management. The need for debt financing is increasing at the period of payment for the transfer of ownership between the generations. The next generation uses debt financing primarily to invest in the implementation of technical and technological changes, to enter foreign markets. The uniqueness of the paper lies in the concept of research concerning the perspective of several generations, in research outputs that have not yet been published.

Keywords: family business, generation, equity, debt financing, capital allocation

Controlling, communication and corporate culture – the opportunity for SMEs

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Abstract. Small and Medium Enterprises (SME) are one of the basic economic forces in the European Union. Their competitiveness and successful future development are key for European cohesion and economic growth. Controlling as a management tool supported by Corporate culture and Communication should offer opportunities for SMEs growth, stability and future development in the Industry 4.0 environment. The aim of this research is to determine the impact of the Controlling management system, Communication and Corporate culture on SMEs performance, stability and competitiveness. To achieve this aim, 371 European SMEs were researched with the use of PAPI method in the European Union (2017-2019). Two main research questions and 5 hypotheses were formed. For evaluating research data, statistical methods were used and the reached results were verified by experimental testing by applying knowledge from companies with focus on what has been changed. The research results offer important information and application ideas in the field of communication efficiency and corporate culture with emphasis to controlling as a managerial SMEs tool and raises questions for deeper problematic research.

Keywords: management, technology, performance, innovation, ERP, technology, Industry 4.0

Asylum seekers and refugees in Austria

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Abstract. Austria has experienced over the last two centuries different forms of international migration: emigration, immigration, and transit migration. Today substantial proportion of the population of Austria consists of immigrants from non-EU countries. Austria is among the countries of the Western Europe with the highest percentage of international migrants of total population. The economic recession due to the oil crisis in 1973 accompanied by key structural changes caused the decision to stop the employment migrant labor. Migrants faced difficulties integrating into the Austrian labor market and lagged considerably behind the host society that reflected in their worsened employment opportunities. The difficulties that migrants faced in respect of integration have played a crucial role in feeding anti-immigrant feelings. Current paper is aimed at identifying political trend and public attitudes towards such categories of migrants as asylum seekers and refugees given historical migration waves directed to Austria and high involvement in European Refugee crisis 2015.

Keywords: asylum seekers, refugee, migration, asylum policy, public attitudes

Is smoking rate lower in innovative countries? Empirical study linking innovation output and selected smoking indicators in a sample of OECD countries

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Abstract. Background: Smoking, as one of the main causes, is a negative factor associated with many diseases. The innovation potential for smoking may be assessed as a predictor of smoking reduction, but many studies have examined it at a very specific level. Therefore, the evaluation of macro-level relations is very difficult to find in major scientific databases. Aim: The primary objective of the research is to determine the impact of innovation on selected indicators of smoking in the sample of Organisation for Economic Co-operation and Development - OECD countries. Sample: Four variables enter the analytical processing, such as GII – Global Innovation Index, Daily smokers (age 15+), Daily smokers (age 15 - 24), Tobacco consumption in grams per capita (age 15+). These variables were included in the research from 2011 to 2018. Design and Measurements (Methods): The methods of simple linear regression – the Ordinary Least Squares (OLS) model was used for statistical processing. The above-mentioned primary objective was met by using three regression models. Results: The results show that the impact of innovation on the ratio of daily smokers over the age of 15 to the total population (Model 3) may be considered as the relation with the higher rate of significance. The impact of innovation on annual tobacco consumption per capita (Model 1) is the second most significant relation, and the impact of innovation on the ratio of daily smokers over 15 and under 24 years to the total population (Model 2) is the least significant when compared to the previous two models. All these relations may be considered as negative; thus, it may be assumed that with an increasing innovation, smoking will decrease. Conclusions: The study showed that it is possible to talk about the impact of innovation (overall at macro level - expressed by the GII index) on smoking in OECD countries. The rate of smoking is dependent on the innovation output of the countries, i.e. less smoking in more innovative developed countries.

Keywords: smoking addiction, smokers, innovation, Global Innovation Index, OECD

Logistic regression in the analysis of unexpected household expenses - cross country evidence

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Abstract. The changes unfolding in the household structure coupled by the shifting role of the family have been affecting the household financial decision-making. Among the numerous financial decisions made by households (including consumption decisions, loan decisions, saving decisions, investment decisions and those involving risk management), many of them are related to spending of financial resources. In a situation of unexpected expenses, financial problems may arise ultimately undermining the household's financial security. The paper pursues two objectives. The first one is to identify the factors determining the household's capacity to face sudden unexpected expenses. The second objective is to evaluate how the selected factors affect this capacity. To achieve these aims data from Eurostat were used. Given the fact that the dependent variable is a dichotomous variable, a logistic regression model has been applied in the study. The findings served as basis for identification of factors that determine the ability of households to cope with unexpected expenditure. Only some of the factors proved statistically significant for all the Central and Eastern European countries under study.

Keywords: economic security, household, unexpected expenses, logistic regression

The human resource management practice in Czech regional schools

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Abstract. Human resource management seems to be a critical function of school management. It enables school managers to ensure the school has quality teachers and other employees it needs to achieve expected objectives of the school. The biggest challenges of school managers in managing human resources in Czech regional schools involve stabilizing teachers and dealing with the teachers' turnover. The aim of the article is to discuss the current challenges of school managers in managing human resources in Czech regional schools and propose useful steps to deal with the teachers' turnover through a well-managed teachers' adaptation. The article applies findings of the authors' questionnaire survey on the human resource management practice in Czech regional schools with the focus on the teachers' adaptation as a critical tool for stabilizing teachers. The authors' questionnaire survey was carried out in the second half of the school year 2018/2019 and in the first half of the school year 2019/2020. The respondents included headmasters and deputy headmasters of Czech nursery, primary and secondary schools. The answers were obtained from 19% of schools (116 out of 600 addressed schools). The findings show that surveyed schools are able to successfully deal with the challenges in managing human resources, however they should apply a more systematic approach to human resource management practices, especially to the teachers' adaptation that could help them to deal with the challenge in reducing teachers' turnover.

Keywords: Czech Republic, managing human resources, regional schools, school managers, teachers' turnover

Workforce management challenges in the fourth industrial revolution from the perspective of Czech employees

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Abstract. The radical technological changes in business models associated with the fourth industrial revolution (4IR) naturally change workforce requirements and approaches to workforce management. To master the workforce management challenges of the 4IR, employers should know requirements and expectations of the potential workforce to be able to apply effective strategies, policies and practices on workforce management to efficiently attract, employ and develop enough qualified and motivated employees. The goal of the paper is to present the main findings of the authors' questionnaire survey on requirements and expectations of Czech employees associated with the fourth industrial revolution and discuss the current workforce management challenges in developing attractive employment opportunities and working conditions. The survey was conducted from September to December 2019. The relevant data were obtained from 168 respondents. The results show that employers should learn how to know requirements and expectations of the potential workforce to be able to develop attractive employment opportunities and working conditions.

Keywords: workforce management, fourth industrial revolution, Czech Republic

Assessment of the Impact of Working Risks in the Exploitation of Raw Materials

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Abstract. The article deals with the use and assessment of individual risks of work in the environment of Slovak mining company. The main aim of the paper is to monitor the incidence of injuries in the last 10 years, to analyze a group of risks that have a significant impact on the incidence of injuries in a mining company, and to assess different groups of risks. The partial goal was the analysis of the current utility rate of the comprehensive risk assessment method on the job and applying the FTA methodology in mining company in Slovakia. The paper proposes solutions that can minimize individual risks and thereby preventively reduce the incidence of work-related injuries in the realization of mining activities. The outcome of these assessments is the FTA model.

Keywords: occupational safety, risk management, occupational injury, FTA model, mining company, risks, risk matrix

Earnings Management Initiatives and Selected Characteristics Of The Entity: A Case Study Of The Visegrad Four

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Abstract. Contribution responds to the current issue of Earnings Management (hereafter „EM“) initiatives in the Visegrad Four. The aim is the identification of EM practices, as well as the determination of a statistically significant relationship between EM practices and firm size, country, or business sector. The paper is divided into theoretical and practical parts. The theoretical part consists of a literature review, bibliometric analysis, as well as a description of the methods used in the practical part. Within the theoretical part, the authors dealt with important studies in the area of EM and focused on the topicality of the issue. A number of publications containing the term "EM" in scientific databases, as well as keyword science map for "EM" publications, science map of the most cited authors dealing with the issue "EM", science map of countries with the highest number of cited publications with the term "EM", and science map of sources with the highest number of publications with the term "EM" are included. The analysis covers the period from 1900 to 2019. The practical part is focused on detecting the presence of EM initiatives in the Visegrad Four using the modified Jones model. Results confirmed the EM initiatives in the Czech Republic, Slovak Republic, Poland, and Hungary. The authors also focused on hypotheses testing. By using the one-way ANOVA test, a statistically significant relationship between EM practices and firm size, country, and business sector were verified. The authors work with a sample of 250 financial statements of entities from each country of the Visegrad Four for the year 2018. The sample is adjusted for outliers using the IQR method.

Keywords: earnings, Earnings Management, the modified Jones model, total accruals, discretionary accruals

On Rare Mathematical Methods in Economics

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Abstract. Modern computers allow us to explore novel techniques for computations as well as uncover new methods of applied mathematics that can be used in order to solve tasks of economics. In this paper we aim to present some methods of up to date economics that are used rarely. We zoom on the utilization of selected statistical tools that allow to describe the spatial organization of regional economic development, the polarity between regions of the country and measure disparities between them. We also focus on utilization of graphs as graph theory structures in economics. On several examples we show that solution of many economic problems lead themselves naturally to a graph. We point out to the situations where colourings of graphs might be of use in order to gain economical information, as well. Within this paper we want to declare that beside classical approaches these methods also have their place in modern economics.

Keywords: methods in economics, graph theory tools, colouring of graphs, cross-countries comparisons, regional disparities assessment

Evaluation of Cost Development in Energetic Sector – case study in Slovakia

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Abstract. Energetic efficiency is actual trend, since in present time energetic companies face strong competition. Therefore they need to introduce new technologies, which could decrease costs on energy. The goal of the contribution is to evaluate development of production costs in the company from energetic sector, as well as to suggest measurements for costs decreasing in concrete environment. The evaluation is made by simple analysis of fixed and variable costs development and their trend with consideration of economic efficiency. Several recommendations had been determined improve production costs, resulting in energy saving. By this way business can meet strong competition in market conditions. The results of the contribution serve then the management to make proper decision of costs management and to offer information regarding specific development of costs in energetic company.

Keywords: economic growth, energetic effectiveness, energetic utility, fixed and variable costs, energetic company, Slovakia

Earnings management: A bibliometric analysis

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Abstract. This research paper aims to analyze keywords related to earnings management issues and then to focus on their evolution and changes in decades over some time from 1988 to the present. When examining the literature concerning the analysis of keywords and their development using bibliometric analysis, we did not find a similar publication. Therefore, it is an original and exciting publication that clarifies the work with keywords of the selected topic. We only researched articles from the Web of Science database. In total, 1.547 articles on earnings management were analyzed. The methodology used analysis to analyze individual articles, synthesis to link context, statistical procedures to select keywords using the functions available in Excel program, and VOS viewer to graphically display the results of the analyzed keywords. At the same time, this division has allowed us to monitor changes before and after the global financial crisis. The changes were most influenced by global trends and overall publication growth in the world. The only term most commonly associated with earnings management in all periods is accruals. By demonstrating the formation of the terms used, we have succeeded in meeting the stated goal. In the future, it would be interesting to follow developments in the coming years of the decade as well as to see a change in the use of earnings management in dependence on global events.

Keywords: earnings management, earnings manipulation, literature review, bibliometric analysis

Alter Ego Only Four Times? The Case Study of Business Profits in the Visegrad Group

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Abstract. The aim of this paper is to detect significant change-points in times series of EBITDA during the analyzed period in every country of the Visegrad Group to recognize the progress years in the monotonic development. We use a method of homogeneity test of time series that delivers significant robust results. We observe the variable EBITDA to eliminate different tax, interest and depreciation policies of these emerging countries. The original research of this article is based on empirical results of business profits of the sample of 5,640 enterprises covered by the broad theoretical review. Firstly, we identify missing values; and detect the outliers by Z-score and Grubbs test. EBITDA of 1,347 Slovak enterprises, 859 Czech enterprises, 2,554 Polish enterprises and 880 Hungarian enterprises is analyzed during the period from 2010 to 2018. We eliminate the inconsistent observations and construct average values of EBITDA. Secondly, we prove normality by Jarque-Bera test, and support it by Shapiro-Wilk test, Anderson-Darling test, Lilliefors test to deliver reliable results. Thirdly, we find an independency of distribution that confirm randomness by the Box-Pierce test. And finally, we identify the years that affect heterogeneity of EBITDA in the countries of the Visegrad Four. We uncover some really surprising results. For all countries in the Visegrad Four, the year 2013 is detected as a change-point at a significance level of 0.05. This significant year shifts EBITDA between two homogeneous series with corresponding central lines and recognizes the similar annual development within the groups. In addition, we discuss the results to the areas and factors affecting the business risk. The adjustable area represented by the business dynamism has no significant impact on the development of EBITDA. The uncontrollable macroeconomic factors such as a GDP, unemployment rate, inflation rate, average monthly gross wage, and Ease of doing business index demonstrate the same development of Slovak, Czech, Polish and Hungarian enterprises. We connect our gained results to the undisputed influence of these factors and its derived components on monotonic development of EBITDA.

Keywords: business finance, change-point, profit, uniformity, Visegrad Four

Assessment of efficiency of earnings management models in Visegrad countries using ROC curves

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Abstract. Competitiveness is an important market measure. A complementary level of competitive performance is the share of sales generated in the markets, however, the key indicator of corporate competitiveness is the earnings. Earnings is a basic synthetic indicator of business efficiency, which depicts all the factors of successful business and its importance is underlined by the fact, that enterprises manipulates it to achieve best results. Earnings management is a strategy used by the management of a company to deliberately manipulate the company's earnings so that the figures match a pre-determined target. The aim of this paper is to portray the importance of earnings in the successful businesses and assess the efficiency of the earnings models used to detect the manipulation in V4 countries which is modelled by confusion matrix and ROC curves. The research unveils which model is the most appropriate to detect earnings management and quantifies its detection accuracy. Detection and revelation of manipulation with earnings needs to be portrayed, as it is a relevant measure of investors' and business partner' protection against risks which may occur if distorted and incomplete information is presented by the enterprises.

Keywords: earnings models, competitiveness, earnings management, ROC curve, confusion matrix

The comparison of the performance of Statistica and Matlab software during the balancing of the time development of stock prices with neural networks

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Abstract. Accurate prediction of stock market values is a challenging task for over decades. Prediction of stock prices is associated with numerous benefits including but not limited to helping investors make wise decisions in order to accumulate profits. However, over relying on prediction data can lead to losses in a case of software malfunction. The aim of this paper is to predict the future development of the CEZ, a.s., a joint-stock company, at the Prague Stock Exchange by the use of neural networks with the Statistica and Matlab software. The stock price data are available for the period 2012-2017. In the case of Statistica software, the multilayer perceptron networks (MLP) and the radial basis function networks (RBF) are generated. In the case of Matlab software, the Support Vector Regression (SVR) and the Back-Propagation Neural Network (BPNN) are generated. As for the final assessment, the deviation of 2.26% occurs in the biggest differential of the maximal and the minimal prediction. It is not necessarily significant regarding the price of one stock. However, in case of purchasing or selling a large amount of stocks the difference may seem significant. Therefore, we recommend using two networks in practice: MLP 1-2-1 and MLP 1-5-1.

Keywords: Statistica software, Matlab software, stock price development, neural networks, prediction

Interconnection of Consumer Behaviour of Different Generations and Marketing Strategy of a Football Club – Experience in Slovakia

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Abstract. The marketing research is the input for corporate strategy, while on the other hand elaboration of the marketing strategy is based on the objectives of corporate strategy. The sport developments that started in the beginning of the 20th. century have been of high relevance, but still incomparable to the current measure of development. Generally, the countries of Western-Europe, due to their better economic performance have achieved a higher level of development far more earlier than the post-communist countries. The political and economic change of the 90s in the 20th century, later the EU enlargement opened a range of new economic opportunities also for our region. The sport marketing, similarly to marketing activity in other sectors and fields has made a relevant progress. The obsolete sport facilities were replaced by modern and well-equipped facilities. The customers were offered a wide variety of sport equipments and sport services. The objective of the research is to examine the services and products of a football club in the Slovak Premier League (Fortuna League) in terms of consumerism, as well as to summarize the consumer experience and opinion, emphasizing the marketing aspect. We formulated two hypotheses in this study. Chi-square test of independence was used for testing our hypotheses, by the help of which we examined several variables at the same time – and also the joint distribution of several variables. The results show a significant relationship between the age groups and the consumer habit of the customers at football matches. The outcome of the study also shows that neither the age nor the distance from the sports event can influence the fans of the football club to attend the sport event. Our results could be used by Slovak football clubs to make their marketing more precise and more efficient.

Keywords: consumer behaviour, generations, marketing, Slovakia, sports marketing

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