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ILONA PIETRYKA

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Keynote Speakers

Eleftherios (El) Thalassinos

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Econometric forecasting: problems and limitations

JEL Classification: *C180*

Keywords: *econometric methodology, econometric methods, econometrics, statistical methods*

Abstract

Research background: The aim of this article is to present and examine issues related to econometric methodology and forecasting. The evolution of models from rational-choice framework of neo-classical economics to mathematical models of risk-analysis and to game theory models is presented to formulate policy options in the digital era. Quantitative methods and econometrics rest on prior assumptions and post-hoc hypotheses which remain systematically unexamined.

Purpose of the article: The purpose is to recognize quantitative econometric techniques in their place as a lower-order set of tools which may generate correlations or discrepancies whose elucidation requires more richly theorized – more conceptually and empirically developed – forms of enquiry. The recent state-of-the-art development theory centers firstly, on mobilizing researchers to reduce complex social phenomena to quantifiable, comparable series of data- the process of reduction itself usually involving value judgments which are scarcely questioned and secondly on the models themselves.

Methods: Analytical theoretical models are presented in comparison to other techniques not related to quantitative methods and econometrics such as market analysis, experiment and social models applied to groups. Critical attention is given to the theoretical assumptions underpinning the hypothetical leap between the statistical results and the researcher's ultimate explanation on them.

Findings & Value added: The article emphasizes the weaknesses and the limitations of the econometric approach, it formulates some laws that characterized mainstream activities and gives incentives to the extent to which we can expect to understand economic phenomena by the process of developing a theory by taking observations and fitting a model. An especially relevant question in practice is whether there are limits on how well we can predict future observations using empirical models that are obtained by such processes.

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The eurozone debt crisis (2010-2013): how the single market exacerbates the European divergences

JEL Classification: E02; E44; E58; F12; F21; F34; H63; L16

Keywords: *European economy, European Single Market, Optimum Currency Area, Eurozone Crisis, Agglomeration Effects.*

Abstract

Research background: The real causes of the euro crisis (2010-2013) are still questioned. For the European authorities, it is mainly due to the imperfection of the national institutions of the affected countries. In response, the policies implemented in these countries were to correct these imperfections by reforming deeply their national institutions in a move towards a balanced budget and improved competitiveness.

Purpose of the article: This article aims to point out the responsibility of the Single Market rules in the intra-eurozone divergence process that lead to the debt crisis of the peripheral countries.

Methods: Long-term macroeconomic data and statistics show the economic trends from the year 2000 and since the financial crisis (2008-2009). A focus is made on the evolution of real interest rates between the core and the peripheral countries.

Findings & Value added: It is found that the Single Market has strengthened the agglomeration mechanisms (Krugman 1991), which has led to a European industrial polarization. Although this dynamic has been beneficial for the core European countries, it accelerated the deindustrialization of southern economies. Moreover, the policies pursued since 2010 in the countries affected by the euro crisis have failed to correct the economic imbalances. It then appears that only a profound reconsideration of the rules that organize the functioning of the European Single Market would be likely to stop the current divergence dynamics of European economies.

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Sectoral determinants of sub-federal budget tax revenues: Russian case study

JEL Classification: *H20; H61*

Keywords: *sub-federal budgets, tax revenues, sectoral structure of economy, level of tax absorption, inter-regional inequality*

Abstract

Research background: The research is based on the assumption that the sectoral structure of economy has a significant impact on the level and dynamics of sub-federal budget tax revenues. It distinguishes the following sectoral determinants of tax revenues in regions: the levels of tax return and tax absorption, inflation and economic growth in various economic activities.

Purpose of the article: We are aimed at assessment of contribution of economic activities and their determinants to the increase in tax revenues of sub-federal budgets of the Russian Federation in 2011-2015 compared to 2006-2010.

Methods: development of a four-factor additive-multiplicative model of the tax revenue formation in regions, application of the proportional and logarithm methods of factor analysis to assessment of contribution of various activities and their determinants to increase in tax revenues of sub-federal budgets, evaluation of inter-regional inequality of tax revenues growth based on the weighted coefficient of variation, and decomposition of this inequality using the A. Shorrocks technique.

Findings & Value added: We identified activities that made the largest contribution to the increase in tax revenues of the Russian sub-federal budgets. We found that the inflation factor had a predominant positive effect on the growth of tax revenues, while the contribution of the economic growth factor was 4 times less; however, the situation in various activities differed significantly. Generally, changes of sectoral levels of tax return and tax absorption influenced negatively the regional tax revenues. In addition, they moved in opposite direction in the regions. Ultimately, the uneven change in tax returns and price levels in the mining and manufacturing activities of Russian regions made the greatest contribution to inter-regional inequality of the growth of sub-federal budgets tax revenues.

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Determinants of FDI flows from emerging economies

JEL Classification: *F23*

Keywords: *Foreign direct investment (FDI), Knowledge-Capital (KC) model, emerging multinationals, Pseudo-Poisson Maximum Likelihood (PPML)*

Abstract

Research background: The last four decades have witnessed an upsurge of multinationals from emerging markets alongside a narrowed gap in growth prospects between developed and emerging economies. UNCTAD statistics show that FDI flows from emerging economies have gone steady since 1980 and occupied more than one fifth of global FDI stock in 2015. Japan led the reverse FDI trend when it started to invest abroad in the 1960s and 1970s. Two decades later, in the 1980s-1990s, the reverse FDI trend was continued by so-called Asian tigers, then recently by those rapidly-industrializing economies in Southeast Asia as well as China and India in East and South Asia.

Purpose of the article: The main goal of this paper is to contribute empirically to the study of the determinants of FDI outflows from emerging economies.

Methods: In order to derive empirically testable hypotheses this paper refers to theoretical Knowledge-Capital model developed by Markusen (2002). The model is estimated using the Poisson-Pseudo Maximum Likelihood estimation technique. The specific research hypotheses derived from the theory are verified using a panel dataset of 38 home emerging countries and 134 host countries over the period 2001-2012.

Findings & Value added: In this paper we distinguish between horizontal and vertical reasons for FDI. Our estimation results support the hypothesis that mainstream theory of multinational enterprise can explain FDI flows from emerging economies, implying the significant roles of total market size, skilled-labor abundance, investment cost, trade cost as well as geographical distance between two countries.

Research Papers

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Acquiring “green” competencies in the study process

JEL Classification: A2; I25; Q5; Q57; Q59

Keywords: *circular economy; education; knowledge; competencies; Baltic countries*

Abstract

Research background: The 7th Environment Action Plan promotes a long-term objective of ‘Living well, within the limits of our planet’ based on a 2050 vision centred on ecological limits, a circular economy, and society’s resilience. It is of a great importance to gather the understanding of global trends and risks as well as future skills that are crucial for a well-developed circular economy. It is important to integrate the life-cycle thinking throughout all the stages of economy and education plays one of the key roles in ensuring comprehensive transition towards circular economy model.

Purpose of the article: The aim of the current paper is to identify what skills, knowledge and competencies students should acquire in the study process and to formulate guidelines for human resource development through higher education according to requirements of a circular economy.

Methods: The research is based on theoretical analysis of the scientific literature in circular economy field, analysis of statistical data and questionnaire survey.

Findings & Value added: The surveyed business executives (1829 respondents in Latvia, Lithuania and Estonia) point out that informational and educational measures are needed on the circular economy. Decision making, system thinking, learning by doing, competences, skills and knowledge, values, awareness raising and problem based learning were identified by respondents as the most important skills that should be acquired during the study process. The findings support the need for developing a study course with integrated the life-cycle thinking which will help to develop professional qualities and competencies of future professionals.

**Zuzana Bajusová, Jana Ladvenicová, Ľudmila
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Analysis of the financial situation of agricultural primary production in Slovakia

JEL Classification: *Q10; Q14; M21*

Keywords: *agriculture; agricultural primary production; financial analysis; economic indicators; cash flow*

Abstract

Research background: Agriculture in Slovakia belongs to the industry which has long-standing tradition. It is a decisive factor in the quality of Slovakia and its environment.

Purpose of the article: The aim of the paper is to evaluate the financial health of agricultural primary production in Slovakia, using the methods and indicators, in the period 2008-2017.

Methods: The financial health of agricultural primary production in Slovakia is evaluated through the development and calculation of basic economic indicators such as costs, revenues, profit, assets, capital, by calculation and analysis of ex post financial performance indicators - liquidity, activity, profitability, debt, cash flow. Also assessed the cash flows assessed through the calculation of net cash flow and the cash flow balance sheet.

Findings & Value added: Agricultural primary production reached in recent years a profit after tax, with the highest value in 2017 at the level 67, 13 €/ ha p.p. In order to finance the needs, enterprises use own equity rather than foreign equity. Enterprises collect receivables before repaying liabilities. Total debt is at an average level of 42.3% over the entire period. Corporate loans load is at an average level of 13.1%; using more common bank loans, which are more affordable. Average returns are low during 2009, 2010, 2013 affected by the reported loss. The development of net cash flow directly affected only cash flow from economic activity. When compiling the cash flow balance, we found that internal resources exceed external resources, with most spending money in investment activity. The added value of the contribution is the presentation of financial economics of agricultural primary production in Slovakia through indicators of financial analysis, which serves as a diagnostic tool of identifying emerging problems with the possibility of avoiding them in the future.

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Challenges of sustainable development – problem of plastic waste and the conception of circular economy

JEL Classification: *Q53, Q57, Q5*

Keywords: *Plastic; optimal recycling; circular economy; sustainable development*

Abstract

Research background: The first ever European plastics strategy was adopted in 2018. It addresses environmental problems with transnational impacts and solutions to help the transition to a closed-loop economy where waste becomes a resource rather than a waste (it is estimated that global demand for raw materials may increase by a further 50% over the next 15 years, with disastrous environmental impacts). The package aims to contribute significantly to achieving the EU's environmental sustainability objectives (reducing pollution levels) on the one hand, and to reconcile sustainable development and economic growth on the other. The new strategy offers support for growth and innovation by making recycling a cost-effective solution for businesses (by generating savings and increasing the demand for recycled plastic content in packaging).

Purpose of the article: The aim of the article is to determine the scale of the problem related to improper management of plastic waste in the EU and Poland and to indicate the negative effects of such a policy on the environment and economy. The concept of closed economy will be discussed as a response to contemporary challenges and as an element of achieving the objectives of sustainable development in the EU.

Methods: Desk Research: statistical data (mainly Eurostat and PlasticsEurope - associations representing plastics producers), literature and strategic documents of the EU will be used in this work.

Findings & Value added: The degree to which the plastics cycle is closed varies widely across the EU, but there are effective solutions that will benefit not only the environment but also the economy. Due to the importance of the plastics industry in Poland, the proposal to change the current shape of the economy into a closed-loop model is an opportunity for its long-term development.

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Tourism innovations content changes and ways of measuring their economic impact

JEL Classification: *O11; O31; O33; Z32*

Keywords: tourism innovations; tourism innovations economic impact; methods of measuring tourism innovations

Abstract

Research background: Tourism is a highly dynamic service sector that is exposed to global competition and characterized by ongoing transformations, in which innovation has become crucial in creating and maintaining a competitive edge. The ability to innovate is the potential to adopt and use new technologies in the process of productivity and management, which is referred to as a competitiveness factor. Like other manufacture or service sectors organizations, tourism companies need innovations in order to survive, otherwise their products or services may get older and have no demand.

Tourism innovations researches should focus on multiple features. Most of the existing researches focuses on information and communication technologies without focusing on other intensive technologies whose usage in service sector, hotels and transportation is also steadily growing. Innovative activity in tourism is usually emphasized by improving customer service, but it is also a sector where companies invest in information and communication technologies. Tourism is at the forefront of electronic marketing and e-business, as the use of new technologies makes it easier for tourism companies to reach their customers by offering user-friendly services and effectively competing with other intermediaries and distribution channels. Although the tourism business is considered as a pioneer in the adoption of new technologies, studies have shown that new technologies are being used and exploited inadequately and their impact assessment is not systematic and complex.

Purpose of the article: to analyze tourism innovations content changes and ways of measuring their economic impact.

Methods: Literature analysis and synthesis

Findings & Value added: tourism innovations content changes, innovations economic impact measurement model. It may be used for countries or businesses for making strategic decisions in tourism.

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Methodical approaches to the assessment of the electronic payment system of the credit institution

JEL Classifications: *I210; E660; H520*

Keywords: *banking system; payment system; electronic banking; assessment method; scoring system*

Abstract

Research background: Currently, special place in the monetary turnover begin to occupy money flows conducted through electronic payment systems, including through banking payment systems. This may be due to the increasing influence of non-cash funds in General and electronic money in particular. The importance of the electronic payment system of a commercial Bank today requires the ability to properly assess its condition, as well as the ability to identify weaknesses and likely points of growth for a particular commercial Bank.

Purpose of the article: The purpose of the study is to develop a methodological approach to the evaluation of the electronic payment system of a commercial Bank.

Methods: To assess the electronic payment system of the Bank, the authors propose the use of the point method. Also, the authors provide indicators, the calculation of which will reveal the specifics of the electronic payment system of a particular commercial Bank. Additionally, methods of analysis and synthesis are used to form a unified approach to evaluation.

Findings & Value added: The result of the study is the development of methods for assessing the electronic payment system of a commercial Bank, which allows to identify weaknesses in the organization of electronic payments. In addition to the methodology proposed indicators that can characterize the state of individual elements of the electronic payment system of the Bank. This method can also be used to evaluate electronic payment systems of non-Bank credit institutions. The correct assessment will determine the level of development of the electronic payment system of the organization to identify problems in its activities and their timely solution.

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Economic activity of Polish pensioners in the light of quantitative research

JEL Classification: *D1; H55; J22*

Keywords: old-age pension; economic activity; regular employment; occasional work.

Abstract

Research background: Despite the economic development, accompanied by various structural reforms (including pension reform of 1999), the effective retirement age in Poland is relatively low. Participants of the social insurance scheme tend to apply for the old-age pension as soon as possible (when they reach the retirement age).

Purpose of the article: The main aim of the paper is to evaluate the economic activity of seniors taking the old-age pension from Social Insurance Institution (ZUS) as a regular or occasional work in comparison to those who are not performing any paid activity.

Methods: We use the data from the survey carried out in 2018 on the representative sample of seniors aged 65+ for whose households' main source of income is the old-age pension from ZUS (1336 pensioners who retired between 1980's up to 2018). Multinomial logistic regression was performed to study how gender, education level, age and period of retirement as well as reasons for retirement influenced the likelihood to continue economic activity.

Findings & Value added: Multinomial logistic regression for women confirms that higher education increases chances for continuing regular work on the retirement comparing to those having secondary education. Retirement due to the reaching the pensionable age made women to be more likely to continue work on regular basis, while those who retired due to the bankruptcy of the employer were less likely to be employed. Retirement due to the preservation of pension privileges increased chances to continue work on the occasional basis. The level of education appeared not statistically significant factor of continuing economic activity by men during retirement. For men who reported employment - related factors as retirement drivers, the chances of performing occasional work were higher. This research delivers knowledge on retirement decisions combined with continuing working during retirement in Poland.

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An attempt to assess the acceptable level of retirement risk of seniors in Poland on the basis of quantitative research

JEL Classification: *D1; H55; J22*

Keywords: *retirement; income and expenses of the household budget; replacement rate; unexpected expenditure*

Abstract

Research background: Definitions of retirement risk presented in the current literature differ. On the one hand, the retirement risk is perceived as the right to stop employment after turning a certain age. On the other hand, retirement risk is defined as the loss of income from work or business while reaching a certain age.

Purpose of the article: The article aims at identifying retirement risk as the possibility of not recovering sufficient funds to finance individual needs after retirement

Methods: In this article, data from a representative quantitative study of Poles (aged 65+) were used. The study was conducted as a direct interviews in 2018 on a group of 1500 seniors. With the use of multinomial logit regression, the relationship between the declared acceptable horizontal reduction of replacement rates was assessed in relation to: actual income reduction, readiness to cover sudden unexpected expenses from different sources and the level of expenses that can not be realized in the household as well as the type of activity before retirement.

Findings & Value added: Preresearch based on the household budget survey (CSO), determined that the declared deterioration of the financial situation concerns those who just started to receive retirement benefits and the households of persons over 85 years of age. The use of logit regression showed a strong correlation between the low replacement rates and the willingness to cover sudden unexpected expenses (especially if this expenditure was covered by one's own savings). The type of professional activity had no impact on the accrued level of pension risk..

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Assessment of effectiveness of forms of professional activation in poviats in Poland in years 2008-2014

JEL Classification: C38; J68

Keywords: *registered unemployment; forms of professional activation; cost and employment effectiveness; cluster analysis; k-means method*

Abstract

Research background: Active labour market policy and large related expenditures make it necessary to conduct analyses on the effectiveness of its instruments and to conduct evaluation studies. In case of the unemployment, this research refers to several aspects. These include in particular: identification of groups of persons threatened by the long-term unemployment, assessment of influence of introduced programmes on exit from unemployment and monitoring the disbursement of funds earmarked for these purposes.

Purpose of the article: The goal of the article was separation of homogeneous groups of poviats with respect to values of cost and employment effectiveness of basic forms of professional activation, realised by the poviat labour offices in the years 2008-2014.

Methods: The k-means method was used for clustering. Variables were standardised and the number of clusters was determined by means of the v-fold cross-validation.

Findings & Value added: In the analysed period it can be observed that the coefficients of cost (except for big decline in 2011) and employment effectiveness had the increasing trend. The analysis carried out did not allow to clearly define which areas of the country were characterized by a better use of funds for activation of the unemployed. It can be observed that in the poviats of middle-east Poland effectivenesses of forms of professional activation generally belonged to worse groups, however the unemployment rate in these areas was not very high. On the other hand, in poviats of the north-west Poland the unemployment rate belonged to the highest and the funds for professional activation were well used. Assessment of effectiveness of forms of professional activation is justified because poviats receive appropriate funds and their activities usually influence the effective counteraction to unemployment.

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Intellectual goods and luxury goods – what do they have in common?

JEL Classification: *D01, D02, K11*

Keywords: *intellectual property; luxury goods; microeconomics*

Abstract

Research background: Contemporary markets are changing very quickly. The role of new technologies, Internet and information increases and it influences and changes the traditional meaning and significance of goods. Traditional, tangible goods' importance in economy is declining and the role of intangibles rapidly increases. Another market trend, caused by income stratification, is growing importance of luxury goods. Luxury goods can be both tangible and intangible and intellectual goods are purely untangible. But these two types of goods which at first sight are completely different and not-connected, have many common features.

Purpose of the article: The main aim of the paper is to describe and compare the main features of intellectual goods and luxury goods. The paper tries to answer the question if intellectual property goods should be treated as luxury goods? Also it tries to show that traditional definition of tangible goods should be changed.

Methods: In the paper the complex analysis of changing views over intellectual property goods and luxury goods in economic literature is presented and critically evaluated. Then the comparative analysis of these two categories is shown.

Findings & Value added: The analysis of intellectual goods and luxury goods shows that these two types of goods are very similar. This relationship has been evolving and nowadays these goods are much more similar than in the past. Not only their growing importance in world economy is similar but also such features as legal protection, the rate of depreciation and the transfer possibility and its cost. It means that traditional understanding of tangible goods should also be changed if modern economics wants to catch-up the changes which take place on contemporary markets.

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DTI University, Slovakia

Determining the team roles of employees in the context of sustainable development

JEL Classification: *M54; J24*

Keywords: *project team; team work; team role*

Abstract

Research background: Effective project team and its results are the essential of the teamwork, as the well-working team has many advantages that are specified by Bedrnová, Nový (2002), Chong (2007), Furnham, Steele, Pendleton (1993) or Hayes (2005). The basic prerequisite for the successful project teamwork is its proper application. Its essence is primarily the transfer of responsibility towards project teams so that they can independently decide and perform their tasks without the approval of the higher component. It is therefore necessary for the members of the project team to have a well-divided roles, so that the differences between the individuals are used to create synergies (Plamínek, 2000, p. 253-254), (Plamínek, 2005, p. 128).

Purpose of the article: The primary objective of presented paper is to compare the available tools for team role research (Belbin's typology, Parker's Styles of Team Players, Test of personality dispositions by Bělohlávek, MBTI Personality Type Test, Bruce Tuckman Test) in the context of assembly an optimal project team. The comparison is carried out on the real project team of company Chr. Hansen Czech Republic, s.r.o. based in Hustopeče u Brna.

Methods: To reach the research goals we primarily used the questionnaires. We used such questionnaires, those are commonly used to reveal team roles, personality dispositions, and team development phases. These questionnaires were applied to 12-member project team of company Chr. Hansen Czech Republic, s.r.o. We also used the interview and self-observation method. Using different data collection methods, we hope to improve research outputs and gain more data. The test results were compared to each other and the extent of their relationship was determined.

Findings & Value added: The Test of personality dispositions by Bělohlávek and MBTI Personality Type Test are the tests with the highest ranking. Their higher degree of connection also points to the relationship of the current team role and personality disposition as expected.

Mirosława Braja

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V4 countries' position in the high technology goods trade within the European Union. A comparative study

JEL Classification: *F20; L63; L65; O30*

Keywords: *high technology goods; V4 countries; comparative advantages; international trade*

Abstract

Research background: In the 21st century, technologies and innovations play a fundamental role in shaping and maintaining the competitive advantages and competitiveness of the developed countries. High-tech industries and firms are critical drivers of economic growth, raise the productivity of the economy, and provide high value-added and well-paid employment for skilled employees. Hence, the development of industries providing high-processed and technologically advanced goods enables accelerated growth and strengthens the countries' position in the global trade.

Purpose of the article: The paper aims at analysing changes of Visegrad Group (V4) countries position in international high technology goods trade across the EU in the period 2004-2017. It presents the results of the economic analysis related to the competitive advantage of V4 countries in comparison to the other EU Member States.

Methods: The research was based on the data provided by Eurostat, World Bank and OECD. The changes in V4 position in the European high-tech goods trade were analysed. Also, the RCA index was used to examine the countries' comparative advantages.

Findings & Value added: Research results proved that the position of the particular V4 countries in the international trade of high-tech goods varies among the specific states. In the analysed period (2004-2017) the comparative advantages of the V4 countries strengthened, but the level of the innovativeness in these countries remained below the average EU level.

Dorota Bręczewska

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Organizational health in a local government unit on the example of the Netherlands and Poland

JEL Classification: *M12; M15; M54; H83*

Keywords: *human resource management; local government unit; public administration; organizational health*

Abstract

Research background: The changes taking place in the economy cause many new phenomena in the area of human resource management, having in mind their most effective use. It is exactly the human capital which ensures in local government units the proper level of services provided, shaping at the same time the image of these entities. The idea of organizational health is a multidimensional concept, transferring the concept of human health to the level of organization, taking into account above all, employees.

Purpose of the article: The main purpose of the article is an attempt to present the concept of organizational health in the local government unit on the example of the commune office in the Netherlands and in Poland.

Methods: The article consists of two parts: theoretical and practical. The first one examines the concept of organizational health. The second part is devoted to the presentation of the results of research carried out in local government units – the office of one of the municipalities in the Netherlands and one office in Poland. The work is based on completed studies of the subject matter literature. For the examination of office employees, a questionnaire prepared by Graham Lowe Group for the study of the level of organizational health was used.

Findings & Value added: The level of meeting the needs of employees in the defined area was presented by comparing the offices of both countries and trying to find explanation, primarily, for observed differences. The importance of organizational health for creating a team oriented towards the implementation of common goals was emphasized due to the involvement of employees in their delineation.

Anna Brzozowska, Dagmara Bubel
Czestochowa University of Technology, Poland

The idea of the techniques of managing the future in creating a scientific library brand in Poland and Germany

JEL Classification: *M30; M31; O32*

Keywords: *brand; scientific libraries; management techniques; marketing tools; management of the future*

Abstract

Research background: The turbulent environment of scientific libraries, determined by globalisation processes and dynamic technological development, requires exploration of new management techniques and marketing tools. Library management techniques are subjected to evaluation inspired by awareness of the necessity of reacting to future-oriented ideas. Therefore, libraries create recognised brands perceived in terms of immaterial resources. As science became commercialised, scientific and research activity should be considered in marketing terms. A brand, which is the background of the idea of future management techniques and fulfils certain functions: identifying, guaranteeing, communicational and symbolic, is a sum of impressions, emotions, experiences and facts that scientific libraries create in social consciousness. Thus, it becomes important to use various techniques of measuring immaterial resources in libraries in terms of future management.

Purpose of the article: The aim of the paper is to standardise techniques of future management in the context of creating brand awareness in Polish and German scientific libraries, methods of its measurement and adaptation possibilities.

Methods: The paper also attempts to solidify future management techniques with respect to library brand awareness among librarians and users of selected Polish and German scientific libraries. A survey was conducted for selected indicators: spontaneous brand awareness, top-of-mind brand awareness, prompted brand awareness. It covered 30 Polish and 30 German scientific libraries.

Findings & Value added: The research led to identification of future management techniques in creation of a scientific library brand, with a focus on brand awareness measurement, which allowed to compare the results and postulate the possibility of using the data, which certainly is value added, in the process of future management. The explanation of brand awareness level and management process enabled specification of future management techniques in the aspect of best practices, thus enabling adaptation of the comparisons, solutions, observations and conclusions.

Łukasz Karol Bugowski

University of Białystok, Poland

Environmental determinants of regional development in Eastern Poland

JEL Classification: *O13; O44; Q10; Q56*

Keywords: *natural environment; regional development; environmental determinants; taxonomic measure of development*

Abstract

Research background: The article analyzes the environmental determinants of regional development in Eastern Poland. Regional development takes place in a specific territory, characterized by unique values of the natural environment and its resources are one of the elements determining the endogenous development potential. The links between natural resources and regional development are multifaceted. One of the connections include the conditions for the development of traditional sectors of the economy, such as agriculture or forestry and the impact on the quality of life, which is one of the components of regional development.

Purpose of the article: The main purpose of the article is to assess the natural determinants of regional development in Eastern Poland. Environmental resources have been analyzed both as conditions for the development of traditional sectors of the economy, as well as in relation to the quality of life. A reflection of this approach is the research hypothesis formulated as follows: natural determinants in Eastern Poland create the potential for development of traditional sectors of the economy, such as agriculture and forestry, while the protection of natural resources ensures a high quality of life.

Methods: Analysis is based on selected indicators, which allowed to rank the regions in accordance with the Z. Hellwig's taxonomic measure of development. Other research methods include descriptive statistics and comparative analysis.

Findings & Value added: On the basis of the conducted research, it can be concluded that environmental determinants create endogenous development potential for traditional sectors of the economy in the case of the Warmińskie and Lubelskie voivodships and partly of the Podlaskie voivodship, while the protection of natural resources ensuring the high quality of life is characteristic for the Świętokrzyskie and Podkarpackie voivodships.

Elżbieta Bukalska

Maria Curie-Skłodowska University in Lublin, Poland

Investment – cash flow sensitivity under CEO overconfidence

JEL Classification: *D91; G31*

Keywords: *behavioral corporate finance; overconfidence; overinvestment; investment-cash flow sensitivity*

Abstract

Research background: Overconfidence is one of the biases and fallacies that affects a cognitive process. Overconfidence have some serious consequences even in corporate finance. The literature is not consistent as for the impact of overconfidence on investment and financing decisions – some research show overinvestment while others underinvestment; some research show excessive debt usage while others debt conservatism. We think that these discrepancies might be explained by the investment-cash flow sensitivity.

Purpose of the article: The aim of this paper is to test the investment - cash flow sensitivity under managerial overconfidence.

Methods: We test the investment cash flow sensitivity among panel data of Polish firms during 2010-2016. We collected the unique sample of 145 non-listed companies by surveying the CEOs on their overconfidence. We divided the sample into two subsamples depending on the overconfidence. We collected the financial data of surveyed companies covering the 2010-2016 period. We compare cash flow and investment in the subsamples. To compare the subsamples we used nonparametric U Mann Whitney test. We also implemented the regression analysis.

Findings & Value added: The results support a number of recent findings reported in the literature. First, we find a positive and higher relation between the investment-cash flow sensitivity for companies managed by overconfident managers which is in line with recent research. We contribute to the existing literature in the following ways. We base our research on original way of identifying and measuring overconfidence. And this is the first research referring to the relation between investment and cash flow in Polish companies managed by overconfident managers.

Anna Busłowska
University of Białystok, Poland

The impact of integrated activities on the development of functional areas on the example of Białystok Functional Area

JEL Classification: *O18; O21*

Keywords: *functional areas; integrated territorial investments*

Abstract

Research background: Cities and their functional areas are an important element of development policy. In the financial perspective of the European Union for 2014-2020, a special instrument was dedicated to them - integrated territorial investments (ITI) to implement territorial strategies in a comprehensive way. ITI is used to solve economic, environmental, climate, demographic and social problems diagnosed in different functional areas. The development priorities and effects measured by appropriate indicators are defined by ITI strategies.

Purpose of the article: The aim of the article is to summarize and evaluate the current effects of activities implemented under ITI in Białystok Functional Area.

Methods: The analysis was based on the literature and on the own research carried out in November - December 2018 in Association of the Białystok Functional Area, including data received from the central teleinformation system SL 2014.

Findings & Value added: The integrated development of the Białystok functional area has a positive impact on the development of the municipalities forming this territory. The majority of 76 million EUR in frame of ITI instrument were contracted. The Association of the Białystok Functional Area, which is responsible for the implementation of the ITI instrument, at the beginning of 2019 organizes the last open calls in frame of vocational and pre-school education. The greatest difficulties occur in the implementation of social services (care and assistants services and support for foster care).

Jędrzej Charłampowicz
Gdynia Maritime University, Poland

Cezary Mańkowski
University of Gdańsk, Poland

Economic efficiency evaluation system of maritime container terminal

JEL Classification: *B27; R40*

Keywords: *maritime container terminal; economic efficiency evaluation system; cost efficiency; time efficiency*

Abstract

Research background: Maritime container terminals play important role at global as well as local supply chains. Especially, maritime container terminals can be perceived as essential transshipment points, which integrate other transport modes, through a set of management (e.g. planning, controlling) and executive activities (e.g. reloading, handling). All these activities require to be supported by an adequate management system, focused on continuous improvement. To meet this requirement an efficiency evaluation subsystem is needed, which will be responsible for assessment of maritime container terminals' activities, mainly according to such economic criteria as time and cost efficiency. In the literature there can be found papers concerning the economic efficiency evaluation systems and the maritime container terminal efficiency based on parametrical methods. However, the literature does not cover propositions on suitable economic efficiency evaluation system, designed for maritime container terminals, which is the research problem at this article.

Purpose of the article: Based on the above mentioned reasons, to develop the method of economic efficiency measurement for maritime container terminals and construct the structure of the system, is the purpose of the article.

Methods: The above stated purpose is carried out through a research process, which covers such stages as the identification of the state of art on the economic evaluation systems for maritime container terminals, and based on the findings, an original method supported by the reference model of the system is to be developed within the second research stage. Therefore some general research methods are proposed as critical literature review and methods of logical reasoning, and more research purpose oriented methods as methods of economic system modelling with a reference model of the proposed system.

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Faculty of Economic Sciences and Management, Nicolaus Copernicus University

Findings & Value added: Based on the research findings a method of economic efficiency evaluation for the maritime container terminals, developed to the form of reference model of the system structure, is the added value of the article.

Mateusz Chład

Częstochowa University of Technology, Poland

Analysis and development of sustainable transport development in selected EU countries

JEL Classification: *M14*

Keywords: *sustainable development of transport; transport; energy transport; the environment in logistics*

Abstract

Research background: The research will cover selected EU ecosystems, including Polish ones, in accordance with the sustainable development arrangements used by EUROSTAT.

Purpose of the article: The aim of the article is to present analysis and development of sustainable transport development in selected European Union countries by applying appropriate measures and indicators reflecting changes taking place in EU countries.

Methods: The appropriate indicators will be analyzed, which are responsible for transport and identification of trends affecting the environment and society in the EU

Findings & Value added: The analysis shows the energy used in transport and energy consumption in transport using appropriate measures and goals of sustainable transport development in EU countries.

Monika Chład

Częstochowa University of Technology, Poland

Analysis of knowledge and attitude of stakeholders towards socially responsible entities

JEL Classification: *M14*

Keywords: *corporate social responsibility; CSR*

Abstract

Research background: The survey covered a group of 200 people who answered questions about corporate social responsibility and assessed the involvement of companies that affect the choices of consumers and producers.

Purpose of the article: The aim of the work will be to examine what CSR practices companies use and how effective they are. I will also consider the motives for undertaking such activities. I will analyze the opinion of respondents who completed my survey to find out what their relationship to social responsibility is and whether the involvement of companies actually affects their choices as consumers and employees.

Methods: The survey method used is a questionnaire consisting of 14 questions regarding the analysis of knowledge and the attitude of stakeholders towards socially responsible entities

Findings & Value added: An analysis of the answers I give will allow me to become independent of my beliefs and verify my hypothesis.

Natalya Chornopyska, Kateryna Stasiuk
Lviv Polytechnic National University, Ukraine

Logistics potential of enterprise: theoretical and applied aspects

JEL Classification: D24; L87; R40; L91; L92

Keywords: *logistics potential of enterprise; logistics performance; logistics operators; transport company*

Abstract

Research background: Modern logistics market can be characterized with structural changes, dynamics and turbulence, thus forming various challenges for these market operators. Intensified attention to effective logistics potential management for enterprise is a prerequisite for stable development in such conditions; this covers modern methodical instruments usage, which allow managers to choose proper priorities for investment, staffing, innovative, marketing enterprise policies, to form reason development strategies and to success in the long run by operating with numbers.

Purpose of the article: The main purpose is studying of logistics effectiveness metrics usage practice by enterprises of various logistics services segments; logistics potential measurement based on the author's method and forming recommendations considering its usage for enterprise practice.

Methods: In-depth interview with enterprise chairpersons representing various logistics market segments; author's method for logistics potential calculation considering five components measurement: technic-technological, economical, ecological competence and quality.

Findings & Value added: Logistics enterprises research results demonstrate more intuitive than purposeful logistics potential management. This is mainly caused by the lack of organized logistics potential measurement system. Merely insignificant logistics providers share measure logistics quality, which certainly considers logistics potential, but only partially. Logistics potential underestimation leads to missed opportunities, what may turn out to become problems, and overestimation alienates goals achieving. Only purposeful logistics potential management based on clear indicators measurement and calculation methods system is capable of providing enterprise with a long-term competitive advantage and a breakthrough strategy in global competition.

Jana Chovancová, Juraj Tej
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Decoupling economic growth from greenhouse gas emissions – the case of energy sector in V4 countries

JEL Classification: *O13; P48; Q56*

Keywords: *Greenhouse Gas emissions; Energy sector; Gross Value Added; Decoupling; V4 countries*

Abstract

Research background: The production and use of energy satisfies human needs, but also gives rise to a host of adverse environmental pressures, such as greenhouse gas emissions, air pollution and the generation of nuclear waste. The issue of energy efficiency and climate change resonates in energy sector as one of the main producer of GHG emissions. While the Union as a whole is doing well in reducing emissions as well as in increasing the share of renewables, unfortunately, there are countries still far from their goal.

Purpose of the article:

The aim of this paper is to quantitatively assess the relationship between economic growth of energy sector and production of GHG emissions by energy sector in the V4 countries using decoupling method.

Methods: The decoupling of economic growth and environmental impacts caused by this growth has rich tradition within the sustainable development literature. The paper focuses on the case of V4 countries in the period of 1995 – 2016. Throughout the more than 20 years examined, the countries spread out into many different forms of decoupling. The results of analysis suggest that in most observed partial variables occurs the strong decoupling of economic growth of energy sector (measured in GVA) and GHG emissions produced by energy sector, what can be considered as positive trend.

Findings & Value added: Findings of the paper are relevant for government, state and public institutions as well as stakeholders in general who play important role in preparation of programs, projects and initiatives to make energy appliances, buildings, transport and energy generation more efficient, and introduces stringent new energy efficiency standards and financing mechanisms to support more energy efficient products.

Jadvyga Ciburiene

Kaunas University of Technology, Lithuania

Sustainable economic development in terms of flexibility and employment: case of Poland and Lithuania

JEL Classification: *O13; Q01; J08; J6*

Keywords: *economic development; sustainable development; labour economics policies; labour market; unemployment*

Abstract

Research background: There is a lack of research in literature on the labour market flexicurity. This paper characterizes main features of sustainable development, its goals and the flexicurity of the labour market.

Purpose of the article: This research aims to analyze the main sustainable development goals and the relations with the labour market on two aspects: flexibility and employment; to evaluate the changes of the flexicurity of the labour market of Poland and Lithuania. The objectives of this article are: to characterize the flexibility and employment of the labour market in the context of sustainable development in the European Union Member States (EU-28), Poland and Lithuanian levels; to characterize the flexicurity of labour market policy and to make a comparative analysis of employment forms in Poland and Lithuania in the context of the EU-28 in the period of 2010-2017.

Methods: For the analysis data from Eurostat databases for the years 2010-2017 are used. The method of base indicators (for example, the flexibility of labour market, the policy of active labour market and others indicators) comparison is given, whereas the first year (e.g., year 2010) of the analyzed period is chosen as base year.

Findings & Value added: The analysis shows that economic modernization, including labour market, of Poland and Lithuania is based on the EU-28 economic development targets. The comparison of main labour market flexicurity elements of Poland, Lithuania and the EU-28 shows differences, which require further research. The investigation reveals that the flexicurity model of Poland and Lithuania is weak, unlike in the EU-28.

**Andrzej Cieslik, Jan Jakb Michałek,
Krzysztof Szczygielski**
University of Warsaw, Poland

What matter for firms' participation in GVCs in Central and East European countries?

JEL Classification: *F14; P33*

Keywords: *CEE countries; firm-level data; GVC*

Abstract

Research background: There has been an extensive literature on the growing importance of Global Value Chains (GVC) in the economies of developed and emerging markets. This literature argues that participation in GVCs has significantly affected international trade and offered new opportunities for small open economies to increase both the quantity and the quality of their exports, to access more advanced technologies and to improve their economic performance. However, the empirical evidence from the Central and East European (CEE) countries, especially at the firm level is still relatively scarce. The majority of the existing studies for the CEE countries are based on sectoral input-output data

Purpose of the article: In this paper we study the determinants of firm participation in GVCs using BEEPS data for 29 CEE countries. We hypothesize that larger, foreign-owned, more productive and innovative firms employing skilled workers are more likely to be involved in GVCs.

Methods: The intensity of GVC participation is measured by the usage of imported inputs and the intensity of exports. The empirical study is based on the probit models, applied to the fifth edition of BEEPS firm level data set covering the period 2011–2014.

Findings & Value added: The assembled empirical evidence generally supports these hypotheses. In addition we find that firms that participate in GVCs produce a smaller range of products which means that they concentrate on their core competencies. Moreover, we find that the EU membership may facilitate the GVC participation, especially for the smaller firms. This article adds to existing GVC literature by examining the firm level determinants of GVC participation using the recent edition of a cross-country firm-level survey conducted by the EBRD and the World Bank.

Andrzej Cieřlik, Leszek Wincenciak
University of Warsaw, Poland

Firm heterogeneity in Cournot oligopoly model

JEL Classification: *F23*

Keywords: *Cournot oligopoly model; firm heterogeneity; imperfect competition; market structure*

Abstract

Research background: Large firms have always played a central role in the models of imperfectly competitive market structures. However, the recent theoretical developments stressing the role of firm heterogeneity for the most part kept imperfect competition but jettisoned oligopoly. Instead, as the heterogeneous firms literature burgeoned in the 2000s, monopolistic competition quickly became established as the workhorse model of the imperfectly competitive market structures, restricting however the analysis to infinite supply of firms, non existence of barriers to entry or exit and allowing for no strategic behavior between firms.

Purpose of the article: The main goal of this paper is to provide theoretical contribution to the study of the imperfectly competitive markets by introducing firm heterogeneity into the Cournot oligopoly model.

Methods: In order to introduce firm heterogeneity into the oligopoly model we use the generalized Cournot framework with several asymmetric firms that differ in terms of their productivity, outputs and market shares. We study autarky and open economy equilibria and the impact of trade liberalization on the market structure, specialization patterns, output and trade.

Findings & Value added: In this paper we argue that monopolistic competition models that currently have dominated the international trade literature miss many important aspects of reality and we outline the advantages and attempt to bring back the Cournot oligopoly model to the center of analysis. Our findings add to the literature of trade and competitiveness and the effects of trade on market structure.

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Brno Technical University, Czech Republic

Trend model of integration monetary and fiscal politics

JEL Classification: C58; E44; G17

Keywords: *Monetary policy; fiscal policy; decision tree; debt; shares decision tree*

Abstract

Research background: Monetary and fiscal policy tasks can be unique, complex and multidisciplinary – economy, sociology, politics, and etc. These are the main reasons why such tasks are solved under information shortages. Trends, i.e. increasing, decreasing, constant values, are the least information intensive quantifiers. Trend heuristics quantified by trends; „a growth rate of money supply (M1) is increasing” is a trend heuristic. A set of trend heuristics is studied as a generator of a complete list of all possible trend scenarios.

Methods: The solution of a trend model $M(X)$ is a set S of scenarios where X is the set of n variables. A set T of transitions among the set of scenarios S is used to generate unsteady state behaviours formalised by an oriented graph H . Any future and past time behaviour of a system under study is characterised by a path within the transitional graph H . A tree, which is a sub graph of the graph H can be used as a trend decision tree. The data set required by the standard evaluation of a decision tree is usually available just partially. This paper presents a very simple evaluation algorithm, which is based on an easy to understand evaluation heuristics, e.g. “a longer decision tree sub-path is less probable. The case study presents six trend models $M(X)$ and their solutions.

Findings & Value added: The largest model has 28 trend heuristics and 13 scenarios. The relevant transitional graph is presented in details.

Magdalena Cyrek
University of Rzeszów, Poland

Government social spending in the EU countries – efficiency in poverty and income inequality reduction

JEL Classification: *H50; I30; I38; O20; D30; D60; E60*

Keywords: *government expenditure; poverty; inequality; efficiency*

Abstract

Research background: Income inequality and poverty focus a lot of attention among politicians, activists as well as scientists, who are trying to find solution to these socio-economic problems. State intervention is commonly expected in this field, however, there is no agreement about the most efficient methods and instruments as well as about a scale of public expenditure on the purpose of limiting poverty and inequality.

Purpose of the article: The aim of the paper is to specify efficiency of government social spending in reducing problems of poverty and income inequality in the EU countries. Moreover, the attention is paid to changes in the efficiency in a period of the 2007 crisis occurrence and its overcoming and to sources of the changes.

Methods: To fulfill the main goal of the paper a DEA method is used that enables to compare the social efficiency of the EU countries. The Malmquist index is also calculated and decomposed to identify changes in the efficiency and their sources in the crisis period. Data used in the analyses were obtained from Eurostat and OECD databases and cover a period from 2007 to 2016 year.

Findings & Value added: The main findings of the paper shed some light on differences in social efficiency of government spending in the EU countries. Generally, the countries with higher level of social spending are also those with lower efficiency in inequality reduction, however, the relationship doesn't appear for poverty alleviation. Thus, the research suggests some substitution between a scale and an efficiency of social spending, at least for the inequality dimension. Moreover, some differences in a social model can be found between the South and the North countries: the South countries focus their social policy mainly on inequality reduction, while the Scandinavian countries as well as some other affluent societies direct their public support mainly on poverty alleviation. The research also shows that in the crisis period decreases in efficiency concerned mainly the poverty dimension. It reflects the fact that the poor were the losers of the crisis in favor of the middle classes. The efficiency losses were induced by negative changes in current

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usage of public sources, while institutional reforms positively influenced the efficiency.

Agnieszka Czajkowska
University of Lodz, Poland

Financing innovative technological investments with technology innovation credit

JEL Classification: *G19; G20; G21; G29; O32; O33; O38*

Key words: *technology innovation credit; micro; small and medium-sized enterprises; technology investment*

Abstract

Research background: Technology innovation credit is implemented as competition projects in Sub-measure 3.2.2 Innovation support for enterprises of Smart Growth Operational Programme 2014-2020. Technology innovation credit is the follow-up to the measure implemented under the Innovative Economy programme. The support granted in form of the so-called technology premium will allow to partially repay technological credit granted by a commercial bank. It is an instrument of financial support aimed at increasing the innovativeness and competitiveness of micro-, small and medium-sized enterprises (MSMEs) by enabling them to implement technological innovations. The innovativeness of Polish MSME is at a very low level compared to other EU countries, therefore it is necessary to implement various instruments of support and stimulation of investments in innovative technologies.

Purpose of the article: assessment of credit procedures and possibilities of financial support for the activity of micro, small and medium-sized enterprises from funds of technology innovation credit.

Methods: analysis of procedures and rules for financing technology investments from the credit earmarked for this purpose from EU funds of SG OP; review of literature, reports, statistical data analysis.

Findings & Value added: presentation of the specificity of the credit procedure in the case of applying for technology innovation credit, including obtaining a technological bonus, assessment of the innovative activity of the MSME, as well as the state of financing innovations and technological investments of MSME, indicating limitations in this respect.

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Is brexit capable of treating down the EU? Testing disintegration theories

JEL Classification: *F02; E61; P17*

Keywords: *European disintegration; Brexit; future of the EU*

Abstract

Research background: Recent developments have raised doubts on future sustainability of the EU as successful political and economic organization. Many phenomena – from euro and sovereign debt crisis to the emergence of right-wing, populist and anti-liberal movements – have brought into question the actual foundations of European integration, be it economic cooperation or a community of values. For this very reason a new strand of research on disintegration theories began lately to appear (see Jones 2018, Vollaard 2014, Webber 2014). It was supposed to fill in a serious gap in the body of literature, which had so far optimistically focused on integration processes. There is however a big asymmetry between the two. Although integration processes took huge efforts and many years to take place, disintegration may happen in much shorter period of time. It is thus a great threat to European nations and ordinary citizens, who may not fully understand the processes at hand, yet be a part of political and performative spectacle.

Purpose of the article: Given that the United Kingdom now appears on course to leave European Union in March 2019, there is a necessity of analyzing probable scenarios of disintegration and evolution of the Union (e.g. Zielonka 2014). The aim of our work is to extend current knowledge of economic, social and political effects of Brexit for separate EU members and Union as a whole.

Methods: This paper attempts to test the disintegration theories on Brexit's case to elaborate on the future of European Union.

Findings & Value added: We undertook this study to prepare the recommendations to prevent further disintegration or minimize the negative consequences of this process.

Olena Derevianko

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The conceptualization of reputaiaon management model and applying it in national Ukrainian rating of corporate reputation management "Reputation Activists"

JEL Classification: M14; M31; L21; D22

Keywords: *reputation management system; corporate reputation; reputation rating; reputation research; Ukraine*

Abstract

Research background: Reputationally oriented and even reputational centric business philosophy has long been in the centre of attention from the scientific community. Despite the general accentuation the benefits of implementation of reputation management practics in the literature, there is still lacks of extensive comparative studies concerning the actual activities undertaken in reputation management in various industries (especially in Ukrainian companies).

Purpose of the article: The scientific purpose of the study is to conduct a creative synthesis of the theoretical framework concerning reputation management model. The empirical part of the paper is an attempt to present the conceptualization and descriptions of a real reputation management. We investigate the reputation management practics in a comparative manner and identify contemporary activities undertaken in reputation management in fourteen important industries (FMCG, IT, the agricultural sector, engineering, metallurgy, retail, construction and development, telecommunications, transport and logistics, fuel and energy, pharmaceuticals, finance, HoReCa) in Ukraine.

Methods: The paper is of analytical and conceptual character. The application of the empirical method has made it possible to characterize the essence of creating a reputation management model and illustrate the progress of the studied phenomenon in business practice. A survey was implemented in February-March 2018, when 107 experts in their industries took part in evaluating the reputation management of companies, with 406 companies being investigated. Expert assessments were collected through filling out questionnaires on the website <http://repactiv.com.ua/ru>, where the results of our four annual surveys, starting from 2015, are available.

Findings & Value added: Based on the survey it can be stated that the reputation management models vary considerably, depending on the industry. At the same

time, the revealed differences can be conceptualized into particular dimensions of a reputation management model: the development of organizational prerequisites; regular activities on the formation and maintenance of the company's reputation; performance measurement.

**Iryna Derid, Olena Khanova, Kateryna Makarchuk,
Maryna Shuba**

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Transformation of the financial systems of the EU countries in the context of the debt crisis: experience for Ukraine

JEL Classification: *F30; F34; G01; H69*

Keywords: *transformation; financial system; debt crisis.*

Abstract

Research background: At the current stage of transformation of the financial systems of the EU countries the newer mechanisms for strengthening economic governance through sustainable monitoring of budget and economic policies and restoring public confidence in the financial system have been created. Nevertheless, there are still a number of problems. The debt crisis revealed shortcomings in the structure and caused the necessity to strengthen financial architecture by solving existing problems simultaneously identifying and preventing possible future threats that determines the relevance of the research.

Purpose of the article: The main goal of this paper is to identify the main directions of EU countries' financial systems transformation in the context of the debt crisis and the possibilities of their use for Ukraine.

Methods: The system analysis, trend analysis and correlation analysis were used in the paper, which allowed to determine the cumulative effect of unsecured bank loans and long-term government bonds yields of the EU countries and Ukraine on the level of their public debt.

Findings & Value added: The results of performed analysis show that during the transformation of the financial systems of the EU countries their further unification with the delegation of greater powers to supranational institutions is taking place. The obtained results of correlation analysis show the existence of correlation between unsecured bank loans and long-term government bonds yields of the EU countries and Ukraine with the level of their public debt. The study determines the further possibilities of using the experience of the EU countries' financial systems transformation for Ukraine, such as further convergence of banking sector regulation to the requirements of Basel 3 and implementation of LCR; introduction of annual banks stress testing; initiation of the process of creating a single mega regulator of the financial market.

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Volunteering and sustainable growth of social enterprises. Lessons from scouting organizations

JEL Classification: L31; L33; J24

Keywords: *Polish Scouting Association (ZHP); social entrepreneurship; sustainability; volunteer relationship management*

Abstract

Research background: Social enterprises (SEs) constitute an interesting hybrid between non-profit organizations and enterprises. Bridging social and business goals requires special skills including management of volunteer work.

Purpose of the article: The article determines success factors of sustainable development of SEs dependent on human capital with a focus on volunteer work. As SEs are currently in the stage of nascent development, the article analyses the conditions shaping volunteering in organisation of Polish Scouting Association (ZHP). ZHP was selected as the subject of research due to the maturity of this organization (in terms of its longevity and sustainable development), and its similar profile to SEs (non-profit aims and high share of volunteer work).

Methods: Within the framework of the study, a survey covering 29 (100%) of regiments from Wielkopolska ZHP concerning last 3 years of their activities was carried out. Quantitative analysis procedure enabled to formulate several recommendations concerning the management of volunteer work.

Findings & Value added: Successful volunteer management is based on several key characteristics such as creating conditions for the volunteers to pursue their own interests and passions within a clearly communicated mission and vision and their empowerment. The regiments of ZHP, which managed to satisfy these needs were also successful in meeting the overall goals of their headquarters (there occurs a correlation between the satisfaction of the volunteers and the beneficiaries). The same volunteer management practices can be applied in ensuring further development of SEs

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The influence of high-skilled immigration on employment and wages

JEL Classification: *F22; J31; J61; J61*

Keywords: *high-skilled immigration; labor market; employment rate; wages; generalized methods of moments*

Abstract

Research background: Globalization processes taking place in the world are causing economic, social and cultural transformations, which affect national labour markets and movement of the labour force. The current migration also differs from the previous ones because the scope of high-skilled immigration is constantly growing in the overall context of migration. This paper examines the impact of high-skilled immigration on employment and wages.

Purpose of the article: The goal of the paper is to analyze the theoretical interpretations of immigration, employment and wages; to develop an econometric model that would help measure the impact of high-skilled immigration on employment and wages; and to carry out empirical research in selected 20 OECD host countries.

Methods: For the empirical analysis of the study, we apply data conducted by the ILO (2016) and Brücker et al. (2013) which provides a new global database on the bilateral stock of migrants, by educational attainment for the period 1980-2010. A System Generalized Method of Moments (System GMM) framework is employed using an instrumental variable approach. The dependent variables consist of employment rate and wages in country i at time t . The independent variable is the stock of high-skilled immigration.

Findings & Value added: The results of the empirical research show that high-skilled immigration has a positive and statistically significant impact on employment rate and wages. Estimates reveal that a 10% increase in the stock of high-skilled migration increases employment rate by 0.12% and wages by 0.44%. We offer some explanations for these findings related to the assumption that immigrants and native workers complement each other in the labor market, meaning that the two individuals do not compete for the same type of job.

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Analysis of relationships between the unemployment rate and the duration of unemployment in the Visegrad group in years 2001-2017

JEL Classification: *C61; J64*

Keywords: *registered unemployment rate; duration of unemployment; business cycle clock; Dynamic Time Warping; Visegrad group*

Abstract

Research background: The registered unemployment rate and the duration of unemployment are the most important indicators that describe the situation on the labour market. The high unemployment rate and long duration are devastating for the human capital on the labour market. Therefore, it is important to check if there is connection between these two indicators.

Purpose of the article: The goal of the article is the designation of relationship between the unemployment rate and the duration of unemployment and the similarity of course of these indicators in the Visegrad group.

Methods: The mutual course of the unemployment rate and the duration of unemployment will be analysed by means of the business cycle clock methodology, while the similarity of the course of these two indications will be analysed by using the Dynamic Time Warping (DTW) technique.

Findings & Value added: In the Czech Republic, Poland and Slovakia the mutual course of the unemployment rate and the duration of unemployment were to some extent similar – both unemployment rate and duration of unemployment decreased until the outbreak of crisis in 2009, in subsequent years the unemployment rate started to increase, while the growth of duration of unemployment was delayed by 2-3 years. After the year 2013 both indicators were decreasing. In Hungary, the course was quite different – the unemployment rate was increasing or steady until the year 2012 and next it started to decrease. The course of duration of unemployment did not follow the pattern of the remaining three countries. The added value is the application of the business clock cycle and the Dynamic Time Warping in analysis of relationships between the unemployment rate and the duration of unemployment.

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Changes in patterns of consumers' behaviour in conditions of market internationalization

JEL Classification: *D11; E21; F60; M31*

Keywords: *consumer behavior; market internationalization; consumption virtualization; global consumer culture; consumer ethnocentricity*

Abstract

Research background: Consumer behaviour is a wide and complex interdisciplinary research area that is becoming increasingly significant in the conditions of ongoing processes of economic internationalization. With their systems of values, needs and desires, and with a specific purchasing power, consumers represent the demand side of the market. They are the point of reference for the activities of enterprises, including entities operating on the international and global scale.

Purpose of the article: The aim of the paper is to identify and characterize the transformation of patterns of behaviour of individual consumers in the conditions of ongoing processes of the market internationalization. It is assumed in the paper that the factors shaping internationalization and economic globalization (the highest level of internationalization), related for example to technological development and growing mobility of consumers, create to an essential extent new patterns of consumer behaviour on the market (e.g. consumption virtualization).

Methods: The problems are considered based on a critical analysis of reference literature from the field of economics, management, marketing and consumer behaviour. The results of studies carried out by national and international research institutions on changes in the behaviour of entities representing the demand side of the market are also used.

Findings & Value added: One effect of the economy internationalization driven by enterprises striving to enter new foreign markets and gain scale advantage owing to realized strategies is the growth of consumption globalization. The phenomenon consists in propagation of identical or similar consumption patterns on the supranational scale and formation of the so-called global consumer culture. In practice, the occurrence of market segments in the international perspective concerns groups of countries or regions of the world rather than the entire world market. It is practically impossible to standardize the company's strategy on a global scale because it is difficult to offer, even to a similar segment of consumers, an

identical product using uniform solutions applied in distribution or promotional activities. The opposite of the global consumer is the one oriented ethnocentrically. Consumer ethnocentricity consists in the consumers' belief that they are obliged to buy products made in their country of origin. Ethnocentric-oriented consumers occur both in countries with a high level of economic development, where national products are held in high esteem, and in economically weaker countries that fear the inflow of foreign capital. Intensification of ethnocentric attitudes is quite frequently a characteristic response to negative effects of the economy globalization. An increase in the significance of ethnocentricity leads to a global-scale heterogenization of consumption, i.e. to bigger diversity of consumers' behaviour.

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Decision Tree based model of business failure prediction for Polish companies

JEL Classification: C38; G33

Keywords: *Decision tree; Failure prediction models; Financial ratios; Financial distress; Polish companies*

Abstract

Research background: The issue of predicting the financial situation of companies is a relatively young field of economic research. Its origin dates back to the 30s' of the 20th century, but constant research in this area proves currentness of this topic even today. The issue of predicting the financial situation of a company is up to date not only for the company itself but also for all stakeholders.

Purpose of the article: The main purpose of the study is to create new prediction models using the method of decision trees, in achieving sufficient prediction power of the generated model, using a large database of real data on Polish companies obtained from the Amadeus database.

Methods: As a result of the development of artificial intelligence, new methods for predicting financial failure of the company are being introduced into prediction financial analysis. One of the most widely used data mining methods in this field is the method of decision trees. In the paper, we apply the CART and CHAID method to create a model of predicting the financial difficulties of Polish companies.

Findings: For the creation of the prediction model, a total of 37 financial and economic indicators of Polish companies were used. The resulting decision trees based prediction models for Polish companies reach a prediction power of more than 95%. The success of the classification for non-prosperous companies is more than 75%. Created decision tree based prediction models are useful mainly for predicting the financial difficulties of Polish companies but can also be used for companies in another country.

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Entrepreneurial propensity index of Czech university students

JEL Classification: *M13; D83*

Keywords: *entrepreneurship; university student; entrepreneurial propensity*

Abstract

Research background: Promotion of the entrepreneurship have an important role in the society, and the direct relationship between entrepreneurship and economic growth of the country is proven. Universities education should be one of the pillars to build a business environment and entrepreneurial propensity of the students in the entrepreneurship.

Purpose of the article: The paper aimed to define and quantify significant factors that shape the entrepreneurial propensity of university students and create the entrepreneurial propensity index. A part of this aim was a comparison of defined factors in the Czech Republic. The survey-based research was conducted with students in the last year of their economic studies on the universities. 409 students from 14 universities in the Czech Republic were approached during research.

Methods: The custom Entrepreneurial Propensity Index was created to verify the defined scientific hypotheses. Also, the descriptive statistics (pivot table, absolute frequency and relative frequency) were used to evaluate partial results.

Findings & Value added: According to Czech students, the most important factors with the impact on the entrepreneurial propensity to the entrepreneurship is that doing business enables using own abilities and it is easier to do business if close relatives are also in business. Otherwise, the most important barriers of en-

entrepreneurial propensity to the entrepreneurship is media which provide information regarding status and activities of businesspersons, and the amount of administrative work of businesspersons in the country which has decreased in the last five years.

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Role of business model innovation for company's development

JEL Classification: *L21; M10; O30*

Keywords: *business model innovation; co-occurrence analysis; literature review*

Abstract

Research background: In the dynamically changing environment companies are looking for new ways to build competitive advantage. One of them could be business model innovation. Despite the rapidly increasing number of research on business model innovation, understanding its role for company is still difficult.

Purpose of the article: Aim of the paper is to identify the role of business model innovation for company's development.

Methods: In order to achieve this aim of the paper an extensive literature review was undertaken. With the use of a computer program (VOSviewer) the co-occurrence analysis was performed.

Findings & Value added: In result a map of up-to-date information derived from the literature was delivered. It not only helped to identify the common standpoints within existing research, but determined relationships between business model innovation and company's development. Additionally, identifying directions for future research was possible.

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Tax policy in OECD countries in 2008-2017: trends and challenges

JEL Classification: *H20; H21; H26; H30*

Keywords: *tax policy; tax system; theory taxation*

Abstract

Research background: Taxation patterns vary from country to country. The shape of the tax policy was influenced by historical conditions, as well as changes in macroeconomic conditions. An example of this is the recent crisis, during which the measures taken in the area of discretionary tax policy often proved to be a good response to the problems of the economies and facilitated a faster return to the path of growth. At the same time, during the last century, the perception of the role of taxes in economic development changed radically, moving from a legitimate tool used by the state in the development process after World War II, through treating taxes as a “necessary evil” at the turn of the century, to an instrument conditioning the maintenance of fiscal balance.

Purpose of the article: The purpose of this article is to analyze the tax policies implemented in OECD countries, indicate similarities and differences in response to global conditions and identify general trends in the reform of tax systems.

Methods: The analysis covered OECD countries in 2008-2017. The study utilizes the descriptive method with elements of statistical data analysis. The article was prepared on the basis of literature studies and OECD data.

Findings & Value added: Economic globalization has changed the dynamics of the legislation process and influenced decision making in the field of tax policy. Although decisions are still made by state parliaments, they not only reflect the needs of the budget, but also ensure the international competitiveness of the tax system and protect against fiscal erosion. It should be remembered, however, that the tax system is defined as a social agreement of sorts, which is concluded between the government and the society. The level and structure of taxation determine the specific “social balance” achieved between the conflicting interests represented by the two parties to the agreement. This balance should not be disturbed solely in order to cover unitary shortfalls in public revenue in a given year.

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The effect of Slovak farms membership in the producers organisations. A metafrontier approach

JEL Classification: *L25; C12; D24; Q12; Q18*

Keywords: *technical efficiency; farms; producers' organisations; metafrontier*

Abstract

Research background: Agricultural producers' organisations (PO) support in Slovakia under the Rural Development Programme (RDP) was granted in order to assist cooperation of small and medium size farms. This policy effects evaluation is based mainly on assessment of target indicators e.g. value added, employment. Important expected outcome of the support was improvement of farm performance.

Purpose of the article: We assessed the Slovak farm efficiency in 2014 according to their membership in the PO (members, non-members, new members) in the period of the RDP 2007 - 2013. We expected positive effect of the membership on farm performance, although with differences with regard to their specialization. Assumed presence of inefficiency due to poor farm management was eliminated, to measure the effect of farm PO membership.

Methods: To estimate farm technical efficiency (TE) according to their PO membership, we apply two stage approach (Charnes et al., 1981). In the 1st stage we employ input oriented CCR DEA model, assuming constant returns to scale. In the 2nd stage, outputs and inputs were adjusted by TE scores in order to eliminate managerial inefficiency. Then TE of farms by specialization was estimated with regard to a metafrontier derived from merged adjusted outputs and inputs of farm groups by membership. Statistical significance of differences of TE distribution by groups of farms was tested by Kruskal-Wallis test. We analysed data of 645 large farms with average acreage of 1342 ha.

Findings & Value added: The most inefficient farms on average in 2014 were farms - members of the PO over full RDP period. The most efficient farms on average were new members of the PO specialized on crop or animal production. These farms behaved opportunistically by gaining advantage of PO support providing during the RDP and by cancelling their membership afterwards. The most efficient among farms with mixed production were those not joining the PO. Our findings could contribute to studies on effects of PO membership and to redesign agricultural policy in Slovakia.

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Cooperation in the network of cities as an opportunity for the development of small towns in Poland

JEL Classification: *O21; R58; Z32*

Keywords: *cities cooperation; small city development; network of cities; Cittaslow*

Abstract

Research background: Today, many demographic, social, spatial, economic and infrastructural problems are accumulated in small towns in Poland. The situation of the smallest cities located away from large cities and metropolises is particularly difficult. A chance for their development may be cooperation in the network of cities which associating cities of similar size and similar paradigm and vision of development, such as Cittaslow, International Network of Cities where living is Good.

Purpose of the article: The aim of the article is to show the development of the Polish National Network of Cittaslow in 2005-2018 and to analyze the cooperation between 28 cities that are members of the network and the Association of Polish Cittaslow Cities.

Methods: Critical literature analysis, analysis of primary documents, for example urban development strategies, revitalization programs and the Cittaslow network statute and results of own research, i.e. questionnaire conducted among mayors and Cittaslow coordinators in the offices of member cities.

Findings & Value added: The cooperation of cities belonging to the Cittaslow network in Poland is becoming more and more complex and concerns mainly the development of tourism and urban promotion, planning of development policy and urban regeneration. Common logo and promotion of city network, organization of cultural events, exchange of experiences, implementation of a supra-local revitalization program developed for a several slow cities, these are examples of active cooperation. This shows that the competition of cities can be evaluated for effective cooperation of cities. The idea of Slow, which is the basis for the development of the Cittaslow towns, gives a chance to find an individual development model for small cities not only in Poland.

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The growing importance of the financial sector in the European Union and the USA

JEL Classification: *G19*

Keywords: *financialization; financial sector; European Union; USA*

Abstract

Research background: The economies of the 21st century countries operate on the principle of connected vessels. A significant element of changes in economies is the growth of the financial sector. The process of financial sector growth is often referred as financialization. The significant impact of this sector on economic development was shown during the financial crisis of 2007. Financialization is more visible in highly developed countries. Undoubtedly, most of the Member States of the European Union and the United States belong to these countries.

Purpose of the article: The aim of the article is to indicate the growth of the financial sector in the European Union and the United States.

Methods: To determine the growth of the financial sector, the author used the indicators appearing in the literature of subject.

Findings & Value added: The results of the study will allow to determine in which of the subjects the financial sector is at a higher level of development. In the literature of subject, it is difficult to find a similar study comparing financialization in the European Union and the USA.

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Location of firms and their export activity – analysis based on Polish firm-level data

JEL Classification: *F10; F14; F23*

Keywords: *determinants of exports; location; distance, firms' heterogeneity; extensive export margin*

Abstract

Research background: There are many empirical findings, based on firm-level data that are referring to the M. Melitz model (2003), confirming its relevance for the international trade analyses. Most of those studies demonstrate that export performance depends on firm's characteristics such as labour and total factor productivity, age of the firm, its size and innovativeness. However, aspects covering firms' location are rarely considered.

Purpose of the article: The analyses proposed in this paper are set in the mainstream of international research on the factors determining the export activity of firms, so taking firms' heterogeneity into account. It is an attempt to assess how firms' location determines the extensive margin of exports. Much attention is devoted to firms' distance to the infrastructure points defined in space (POIs). The paper uses Polish firm-level data for the year 2018.

Methods: To achieve the aim of the article the author analyzed both Polish and foreign literature, with special emphasis on the newest trade theories and empirical findings based on them. Advanced statistical methods were used to achieve the aim of the paper.

Findings & Value added: Due to a very limited access to firm-level data in Poland, there are relatively few empirical findings concentrating on the determinants of trade and not many investigating spatial elements. Therefore, considering detailed data on firms' location (precise measurement of distance expressed in time of travel by road) is proposed in the paper. In contrast to most of the literature remaining in the new strand of trade theories, this paper combines the firm-level characteristic with firms' location with respect to specific points of infrastructure. Combining the characteristics of firms and their location is both, a challenging and a promising research task.

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Adaptive efficiency of the real estate market: state intervention in the limited land use area around airport

JEL Classification: *P43; R38; R41*

Keywords: *adaptive efficiency; house prices; land use; negative externalities*

Abstract

Research background: The economic benefits, that arise with the development of airport infrastructure, are accompanied by negative externalities. Legal, technical and institutional instruments are used to mitigate or limit these effects. It involves state intervention in the use of real estate located in the vicinity of the airport, and the cost of such intervention. On the other hand, as a result of state intervention, real estate market mechanisms are distorted. The balance on the market, prices and as a result the number of transactions is changing.

Purpose of the article: The study evaluates adaptive efficiency, which is known as the ability of the real estate market system to adapt to the purpose of public intervention. The effectiveness of state intervention is measured as the difference between market transaction costs and costs after intervention. The first means the full coverage of all individual claims of property owners at market prices. However, after the intervention, these are the costs of compensation and litigation (judicial, expert opinions, provisions for payment of damages), as well as the risk of the airport's insolvency. The state intervention system is also assessed through the prism of the lack of a methodology for assessing damages and subjective claims of property owners. The study is based on the example of PPL Ławica in Poznań.

Methods: Methodology of the study is based on causal models with a delay, in which the dependent variable is social costs and scenario analysis method. The study evaluates three scenarios: compensation model without public intervention; compensation model with ineffective public intervention (caused by biased esti-

mates of damages and value losses); compensation model with effective public intervention.

Findings & Value added: This research is one of the important basic research on socio-spatial connection near airport in Poland. The results are important due to pending disputes and costs threatening the functioning of airports in Poland.

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Long-term care system in supporting family carers in Germany

JEL Classification: *D60; H53; J14; J22*

Keywords: *family care; long-term care; Germany*

Abstract

Research background: Long-term care system in Germany is based on compulsory long-term care insurance (LTCI). The vast majority of LTCI beneficiaries (more than 70%) receives care at home. The number of people in need of care is constantly growing. On the other hand, the caring potential of families is shrinking along with changes in family structure and increasing labour market participation of women. Thus families are more and more inclined to externalize care tasks. The possibility of externalization is shaped by the type of LTC benefits available in German system – 80% of all beneficiaries use cash benefits.

Purpose of the article: The aim of the article is to examine the role of LTC benefits and the way of their financing in supporting the role of family in giving care to the elderly.

Methods: qualitative analysis method including descriptive and comparative analysis and elements of economic analysis of law, comparative analysis of statistical data related to employment and the take-up of work-care measures.

Findings and Value Added: German families have the choice to outsource some of their caring tasks including care given by migrant carers. However, the care market is not developing towards transparent, professional services but is rather shifted towards low-paid hybrid forms of care. Family care is mostly provided by women whose participation in the labour market, if present, is usually part-time. The reconciliation between work and care has been facilitated by care leaves including unpaid long-term care leave. Family carers have also access to advisory services which is an important element of strengthening long-term care at home.

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Evaluation of the post-crisis EU banking network connectedness in the global context

JEL Classification: *G21*

Keywords: *network analysis; financial connectedness; regionalization; EU banking network; global banking network*

Abstract

Research background: global banking network had been undergoing structural changes since the recent financial crisis. Previous studies on connectedness of global banking network during post-crisis period revealed the trends of regionalization and segmentation. Our previous research has also shown that during post-crisis period the level of regionalization within EU banking network had increased; the network became more clustered and more decentralized. This paper continues our research of structural changes within EU banking network during post-crisis period by adding a global context and questioning the connectedness of EU banking network within global banking system.

Purpose of the article: the aim of the paper is to evaluate EU banking network connectedness in the global context during post-crisis period.

Methods: the methods of comparative literature analysis and synthesis were used for the review of previous empirical research; network analysis method and data on yearly flows of BIS bilateral interbank cross-border claim were used to evaluate connectedness of global and EU banking systems.

Findings & Value added: Evaluation of global banking network connectedness revealed that global banking network density decreased by 4.50 % suggesting that connectedness is decreasing, but it is happening slowly. Regarding the analysis of EU banking network connectedness, the results show that EU banking network became more connected in the global context during post-crisis period. EU banking network was regionalized in 2011, but this regionalization disappeared in 2015 as the level of intraregional density decreased in 2015 and became lower than interregional density. This research contributes to previous research in a way that it applies intraregional and interregional network density measures for evaluation of EU banking network connectedness and analyzes it as a subset of global banking network.

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Estimation of the price of elasticity of consumption of petroleum products in Ukraine

JEL Classification: *D11; D22; C61*

Keywords: *petroleum product market; elasticity; model*

Abstract

Research background: The analysts of the petroleum product markets of industrial countries believe that the elasticity of demand varies at different periods, which gave rise to the hypothesis that behavioural and structural factors have changed the consumers reaction during the last few decades with a change in prices for petroleum products.

Purpose of the article: The purpose of this article is to study the demand elasticity in order to identify changes in consumer behavior in the Ukrainian petroleum product market after significant socioeconomic upheavals.

Methods: Based on the time series of the petroleum product market of Ukraine, static and dynamic models for assessing the demand elasticity were constructed. It was found that the time series of demand for petroleum products is non-stationary, but the that the time series of the first differences is stationary according to the extended Dickey-Fuller test. This made it possible to construct a cointegration dependence. In turn, this allowed to develop models for assessing the elasticity of demand for petroleum products, on the basis of which were established objective assessments of changes in consumer behavior. In turn, this allowed to develop models for assessing the elasticity of demand for petroleum products, on the basis of which were established objective assessments of changes in consumer behavior.

Findings & Value added: Comparison of long-term price elasticity estimates for static and dynamic models according to 2014-2016 data shows that the estimates have the same minus that naturally and insignificantly vary in modulus, respectively: -1.252979 and -1.38826 long-term elasticity estimates for static income and the dynamical model is: -0.006952 and -0.007221. These estimates of elasticity differ markedly from elasticity estimates for the previous period of 2010-2013.

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Strategy of coopetition in development of agritourism farms

JEL Classification: *Q16; L26; Z30*

Keywords: *coopetition; agritourism farms; świętokrzyskie region*

Abstract

Research background: Coopetition is a system of interaction based on partial concordance of interests and goals. It is a relation combining cooperation in a certain area of activity and competition in other areas. Such a concept provides grounds for defining coopetition as a strategy distinct from competition and cooperation. Organisations in simultaneous relations of cooperation and rivalry pursue the strategy of coopetition.

Purpose of the article: The purpose of this article is to assess cooperative and competitive relations among agritourism farms. They can serve as a good example of the coopetition strategy for at least two reasons. First, they work as part of diverse organisations like agritourism associations for the benefit of entire communities. On the other hand, agritourism farms compete for customers by expanding and enriching services they offer. Agritourism farms build and maintain their competitive advantages by relying on cooperation and competition at the same time.

Methods: A questionnaire interview was used as part of a study addressed to agritourism farms situated in świętokrzyskie region. The research area and the facilities surveyed were selected by means of nonprobability sampling. The sample consisted of 100 agritourism farms, that is, approximately 30% entities of this type in świętokrzyskie region. The survey employed the PAPI technique of personal meetings between interviewers and agritourism farm owners. This was a pilot study. The research material was analysed by means of quantitative and qualitative methods of data processing.

Findings & Value added: As a result of the study, coopetitive behaviours and relationships in agritourism farms' operations in świętokrzyskie region were diagnosed in depth. The analysis indicates the strategy of coopetition brings more benefits to an agritourism farm than strategies of competition and cooperation realised in separation. Coopetitive relations are considered, continuing, and formal.

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Bankruptcy prediction of construction companies in Poland

JEL Classification: *G17; G33*

Keywords: *bankruptcy; bankruptcy prediction; construction company; discriminant analysis*

Abstract

Research background: The inflow of structural funds from the European Union and the interest rates, which have dipped since 2012, have a significant impact on the growth of investment demand in Poland. However, very good situation on the construction market doesn't have a positive influence on the financial results of Polish companies operating in this sector.

The high investment demand initiated price increases of building materials and rising labor costs, which have a negative impact on profitability and liquidity of construction companies. Additionally, the new principles of VAT settlement are also an important factors lowering the liquidity ratios of these companies. It is interesting that the latest research results indicated that in this sector not only the number of companies that have problems with maintaining financial liquidity, but also the number of companies which declare bankruptcy have increased significantly. Due to the fact that the construction sector is one of the most important sectors of the Polish economy and the changes occurring in it might have a negative impact on the condition of the entire economy, it seems interesting and important issue.

Purpose of the article: The main purpose of the article is to assess the assets and financial situation of construction companies in Poland.

Methods: For this purpose we use mainly bankruptcy prediction models for construction sector. We use data from the Emerging Markets Information Service to collect information and conduct the research.

Findings & Value added: The results of the research shows that the bankruptcy prediction models are interesting and important device to assess the assets and financial situation of different firms. However, it's necessary to develop bankruptcy prediction models adepted to current circumstances and specifics of the construction sector in Poland.

Simon Gelashvili

Ivane Javakhishvili Tbilisi State University, Georgia

Empirical analysis of modern trends in trade between Georgia and Poland

JEL Classification: *A11; A14; B16*

Keywords: *trade turnover; import; export; growth rate; relative indicators*

Abstract

Research background: In 2000 Georgia had trade relations with 102 countries and in 2017 this number was 138. Thus, the geography of foreign trade has significantly expanded, in which a major role has played the fact that Georgia is one of the most liberal and competitive trade in the world. The article reviews the empirical statistical aspects of trade relations between Georgia and Poland during 2000-2017, for which the relevant time periods are used. Ranking of Georgian trade partner countries was carried out according to whole trade turnover, as well as export volume and import volume of goods and established Poland's ordinary position.

Purpose of the article: The Purpose of the article is to identification and analyzis the modern trends of trade relations between Georgia and Canada (volume and structure of export and import of goods).

Methods: The research process is used by the methods of statistical grouping and presenting, medium values, time series analysis and variation statistics.

Findings & Value added: In the process of the analysis, both absolute and relative indicators were calculated. The nature and direction of the overall trading turnover as well as the trends of export and import have been identified. The export and import volumes in 2000-2017 are also considered according to commodity groups and the first five of the largest commodity groups are drawn in both directions. It is necessary to expand the diversification of export goods from Georgia. Finally, the increase of Poland's role as an important trading partner for Georgia is shown.

Grzegorz Głód

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Competitiveness of a public hospital in Poland in the face of new regulations in the health care sector

JEL Classification: *I 11; I 19; L 32*

Keywords: *management in a health care unit; competitiveness; public management; public entrepreneurship; hospital*

Abstract

Research background: The health care sector in Poland is undergoing a continuous restructuring process that directly affects the functioning of treatment entities, especially hospitals. One of the key changes is the introduction of a system of basic hospital security of healthcare services. In this context, the question arises about competitive management of a public hospital in Poland and the use of entrepreneurial management tools and the possible scope of these processes in the current external conditions. The aim of these efforts is to increase the efficiency of the health care sector, better tailoring services to social needs and improving the management of limited resources.

Purpose of the article: The aim of the article is to assess the possibility of increasing the public hospital competitiveness in Poland in the context of new regulations in the health care sector.

Methods: The analysis will be carried out based on the analysis of legal acts and using elements of the integrated enterprise competitiveness model by G.Głód and O.Flak.

Findings & Value added: Formulating recommendations for public hospital managers in the field of raising competitiveness and indicating the possibility of using appropriately adapted tools to assess the competitiveness of the private sector for entities from the public sector.

Sebastian Gnat
University of Szczecin, Poland

Real estate hierarchical clustering with spatial constraints in the process of mass valuation

JEL Classification: *C38; R30*

Keywords: *agglomerative clustering; entropy; property mass appraisal, market analysis*

Abstract

Research background: The value of the property can be determined on an individual or mass basis. There are a number of situations in which uniform and relatively fast results obtained by means of mass valuation undoubtedly outweigh the advantages of the individual approach. In literature and practice there are a number of different types of models of mass valuation of real estate. For some of them it is postulated or required to group the valued properties into homogeneous subset due to various criteria. One such model is Szczecin Algorithm of Real Estate Mass Appraisal (SAREMA). When using this algorithm, the area to be valued should be divided into so-called elementary areas. Such division can be made in many ways. Regardless of the method of division, its result should be assessed, depending on the degree of implementation of the adopted criterion of division quality. A better division of real estate will translate into more accurate valuation results.

Purpose of the article: The aim of the article is to present a application of hierarchical clustering with spatial constraints algorithm for the creation of elementary areas. This method requires the specification of the adjacency or distance matrix to carry out the clustering process. Due to the fact that such a matrix can be specified in a number of ways, the impact of the proposed types of distance matrices on the grouping process will be described. A modified measure of information entropy will be used to assess the clustering results.

Methods: The article utilises the algorithm of agglomerative clustering, which takes into account spatial constraints, which is particularly important in the context of real estate valuation. Homogeneity of clusters will be determined with the means of information entropy.

Findings & Value added: The main achievements of the study will be to assess whether the type of the distance matrix has a significant impact on the clustering of properties under valuation.

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Eurobonds as an instrument of the common European Union capital market

JEL Classification: *G10; F36; G12; G15*

Keywords: *Eurobonds; capital market; financial instruments*

Abstract

Research background: Eurobonds market has become a natural alternative to credit market. Its development has enabled enterprises to access capital provided through the issuance of debt instruments on international markets. Restrictions on access to financing due to tightening of banks' lending policies as a result of the financial crisis, access to capital and investors from around the world and lack of fear of losing control of the company make the issuance of Eurobonds may constitute the major companies operating internationally important source of capital.

Purpose of the article: The purpose of this article is to present Eurobonds as a means of stabilizing the euro in the current crisis.

Methods: Issuing bonds denominated in different currencies and selling them in selected countries enables diversification of risk and facilitates the management of finances and currencies in enterprises, financial institutions, states and local governments. The aim of this article is to present Eurobonds as an instrument of the common EU capital market.

Findings & Value added: Eurobonds give the opportunity to get cheaper public debt financing for countries at risk of liquidity loss and bankruptcy. As an aid instrument for peripheral countries, they may be the best way to avoid deepening the debt trap and to halt shock transmission to the rest of the union. At the same time, introducing them as a permanent aid instrument may encourage euro area Member States to be tempted to abuse, as they will always be able to count on "emergency exit" in the form of using the credibility of other EU countries.

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SHEI “PSTU”, Ukraine

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Digital technology as a tool for economic development of European countries

JEL Classification: *M15; M21 O32*

Keywords: *digital economics; digital single market; digital skills; innovations*

Abstract

Research background: The introduction of new technologies and digitalisation — often referred to as the ‘fourth industrial revolution’ — is having an impact on society through changes to the way that people live, work and interact with one another. The New Skills Agenda for Europe (2016) launched a number of actions to ensure that the right training, the right skills and the right support are available for people in the EU. One such action, the Digital Skills and Jobs Coalition supports cooperation between education, employment and industry to develop a pool of digital talent in the EU.

Purpose of the article: The aim of this article to compare the level of digitalization development in the EU countries and the EaP countries, present a mechanism of digital economic strategy implementation in the EaP countries, taking into account economic and educational reforms.

Methods: analysis of statistical data and applies quantitative analysis methods. The research focuses on 4 countries from Eastern Partnership and 4 EU countries. The analysis is based on EU4Digital regional networks concepts and Index of DiGiX.

Findings & Value added: The EU digital economy is built on the basis of the Digital Single Market (DSM). The digital markets of the EaP countries are going through the initial stage of their development and require increasing the level of digitalization and harmonization with the markets of the EU countries. In the research, we revealed that 840 organizations are engaged in supporting digital innovations in EaP countries. And at this stage there is a significant difference in the

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structure of the ecosystem in the EaP countries and the EU. The study also focuses on gaps in competencies for digital innovation for three key groups: business, organizations of innovation infrastructure, regulators.

Magdalena Gostkowska-Drzewicka,
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Research and development activity of enterprises in Poland on the background of selected European countries: state and forecast of changes

JEL Classification: *O3; O5; C23*

Keywords: *research and development activity; R&D; innovation; panel data*

Research background: The development of the company means changes consisting in the introduction of product, technological and organizational innovations. They are perceived as a source of competitive advantage. Therefore, innovations have fundamental importance in the development process of individual enterprises and entire economies. An essential condition for the emergence of innovation is R&D activity. The impact of this activity on the level of innovation of both enterprises and entire economies is connected not only with the value of expenditure on its financing, but also on their objective and subjective structure.

Purpose of the article: The purpose of the article is to analyse the size and structure of expenditures on research and development of the business enterprise sector in Poland on the background of selected European countries and to forecast the convergence of these expenditures in Poland with expenditures incurred in highly developed countries.

Methods: Description and analysis of statistical data from statistical studies prepared by EUROSTAT and GUS. The application of the panel convergence model is proposed.

Findings & Value added: In the years 2000-2016, the number of enterprises conducting R&D activity in Poland was increasing systematically, and the expenditure on research and development was also increased. This contributed to the improvement of the competitiveness level of the Polish economy. However, the size and structure of expenditure in the sphere of R&D in Poland does not ensure that Polish companies obtain a competitive position enabling them to compete with enterprises in highly developed countries. The key issue is the further activation of Polish enterprises in the R&B activity, because Poland in comparison with developed European countries ranks in the group of countries with low expenditures on research and development. Also their structure is characteristic for less prosperous economies.

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Conflicts and challenges for current labor market in Poland

JEL Classification: *J24; D02*

Keywords: *labor market; institutions; social capital; cooperation*

Abstract

Research background: Labor market in Poland has been influenced by many institutional factors. One of them is social capital, which can be advantage for its development . According to P. Bourdieu (1986) social capital is the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition – or in other words, to membership in a group – which provides each of its members with the backing of the collectivity-owned capital, a ‘credential’ which entitles them to credit, in the various senses of the wordIt influences ability among the market entities to cooperate with each other and to create their competitiveness on this market. Lack of Social Capital causes many disadvantages like lack of ability to cooperate between entities. That is why strong social capital is a challenge to build long term relations on the labor market.

Purpose of the article: The main cognitive aim of this article is to identify challenges for current labor market in Poland. The additional aim is also to present threats and barriers on labor market in Poland.

Methods: The research methods used in this article are critical literature analysis, desk research and primary research which was conducted among polish entrepreneurs from October till December 2018.

Findings & Value added: The main hypothesis of this article claims, that institutional barrier on labor market in Poland is lack of social capital. Such situation causes the lack of ability to cooperate between entities on this market.

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Unscrambling the concept of project social efficiency evaluation based on management sciences

JEL Classification: *H43; O22; D04*

Keywords: *social efficiency; efficiency evaluation; project management, terminology*

Abstract

Research background: During planning and implementation, projects require estimation of their efficiency regarding planned and real profitability, necessary to make decisions and related risks. Striving to achieve desired goals in an effective and efficient manner without considering key social interests is not reliable and it is necessary to pay attention to the issues of social efficiency evaluation. The necessity of conducting studies regarding these issues is the result of identified needs of researchers, practitioners and decision-makers in the design and implementation of unique and complex activities that require evaluation from the point of view of social efficiency. Expansion of terms interpretation doubts, ordering and explanation of concepts may serve to obtain clarity of conducted discussions and scientific and research activities related to the evaluation of social efficiency of various types of projects. The authors of the paper will also attempt to determine the directions of further development of study on methods of evaluation useful in this field.

Purpose of the article: The main objective of this paper is an attempt to organize the concept of project social efficiency evaluation based on management sciences.

Methods: literature review, bibliometric analysis, hierarchical cluster analysis.

Findings & Value added: Explanation of interpretation doubts and ordering of concepts related to social efficiency. Identification, elimination of errors and confusions, which allows the development of research on methods and systems of social efficiency evaluation.

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Innovativeness of the food industry in Poland. Experiences and perspectives

JEL Classification: *O14; O30; R12*

Keywords: *innovations; innovativeness; food industry; Poland*

Abstract

Research background: The food industry in Poland is an example of a dynamical-ly developing field of industrial production and processing, which takes advantage of the opportunities associated with Poland's membership in the EU. The industry's successes in international markets result from cost and price advantages as well as increasingly indicated ability to create new innovative solutions. In the discussion on creating competitive advantages of enterprises and maintaining their growth, their level of innovativeness is exposed. Due to the spatial diversity of production concentration, it is important to consider innovativeness of the food industry at a regional level.

Purpose of the article: The aim of the research was to assess the level of innovativeness of the food industry in individual provinces in Poland.

Methods: The diagnostic and comparative analysis was performed at the aggregated level (section 10 of the Polish Classification of Activities). The time range of the analysis covered the functioning of enterprises in 2009-2017. Characteristics of the innovative activity of the food industry were made using the various indicators of the innovative position of the food industry.

Findings & Value added: Regional diversity of location is clearly visible among enterprises of the food industry in Poland. The concentration of the food industry entities stimulates greater innovative activity. The assessment of the innovativeness of the food industry in individual voivodships may contribute to the policy development in the area of local economy development, e.g. in the area of building co-operation within cluster structures.

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The key factors that accelerate the use of e-commerce for business development in SME sector in Latvia

JEL Classification: *O31;O33*

Keywords: *E-commerce development; key factor for growths; SME sector; new technologies*

Abstract

Research background: The study was conducted to find key factors that can have a positive impact on the use of e-commerce for business development in the small and medium-sized enterprise sector in Latvia. Statistics show that Latvian small and medium-sized enterprises do not take advantage of e-commerce to develop their business compared to other EU countries.

Purpose of the article: In the article, the author analyses the data from the study, highlighting factors that can accelerate the use of e-commerce and have a positive impact on the development of small and medium-sized enterprises in Latvia. This process is particularly important in order to promote the activities of regional companies and make them more competitive and promote export capacity.

Methods: The study is based on the results of surveys of 120 small and medium-sized companies and 7 in-depth interviews of information technology and business development experts.

Findings & Value added: The results of the study highlight the key steps that companies, government and society as a whole have to take to make companies start taking advantage of the benefits of using e-commerce in business development. The results of the study can be used not only to promote the development of Latvia's regional economy, but also other countries where the situation in the small and medium-sized enterprises sector is similar and it is necessary to encourage and support the use of new technologies for business development. The study shows that there are reasons why companies don't use the latest technologies to develop their business. The conclusions and recommendations of the study set out a series of measures to be implemented by stakeholders-government, business leaders and employees themselves in order to significantly improve the competitiveness and export of businesses through the latest e-commerce solutions.

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Volodymyr Falovych, Liliia Yakymyshyn
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Transformation of institutional infrastructure in the context of power decentralization reform

JEL Classification: *H83; R11*

Keywords: *economic development; local self-government; decentralization; marketing*

Abstract

Research background: The administrative-territorial reform that is being implemented nowadays in Ukraine significantly changes the socio-economic landscape of the country from the centralized way of management of economic processes towards the independence of emerging communities. De facto newly formed consolidated communities acquire a real subjectivity in the processes of the management of territorial development: they become responsible for a significant share of day-to-day economic activities within their sphere of responsibility. Thus, local governance in Ukraine, faces so significant institutional transformations that create a fundamentally new approach to the management of local economic development. The foregoing description substantiates the relevance of the research topic and determines the choice of a local self-government as its object.

Purpose of the article: The purpose of the study was to determine the level of influence of the transformational processes of the institutional sphere on the economic and social conditions of local development.

Methods: In the process of research such methods as empirical research (for the study of secondary information regarding trends in local economic development), questionnaires and in-depth interviews (for the study of the perception of inhabitants and local authorities of institutional change) were used.

Findings & Value added: The positive economic effect of institutional transformations was shown in the article under the conditions of decentralization of authority in Ukraine, applied aspects, which should be the base for the activity of local governance, are substantiated.

**Hoang Hung Cuong, Miloslava Chovancová,
Vo Viet Hung, Abdul Bashiru Jibril**
Tomas Bata University in Zlin, Czech Republic

Theory of planned behavior with the extension of value co-creation to predict purchase intention toward organic food in Vietnam

JEL Classification: *M31*

Keywords: *Purchase intention; Organic food; Value co-creation; Theory of Planned Behavior*

Abstract

Research background: The more and more awareness increasing of customer purchasing safe food, especially organic food has been considered in Vietnam. Despite purchase intention of customers toward organic food in many nations being commonly studied, there is a lack of research related to value co-creation based on the Theory of Planned Behavior

Purpose of the article: This study aims to understand how the Theory of Planned Behavior (TPB) with the extension of value co-creation explains the purchase intention of customer toward the organic food in Vietnam.

Methods: This article uses both qualitative and quantitative method. The data used in this study is collected from 300 organic customers in three biggest cities in Vietnam: Ho Chi Minh, Da Nang and Ha Noi. Structural equation modeling is applied to analyze the data.

Findings & Value added: The result shows that there is a positive relationship between value co-creation and purchase intention toward organic food. This enriches the existing literature with the effect of value co-creation to purchase intention toward organic food based on the Theory of Planned Behavior.

Grzegorz Ignatowski, Bartłomiej Stopczyński
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Ambivalent understanding of nepotism in small family business

JEL Classification: *J24; J28; M51*

Keywords: *nepotism; family business; social capital; preferential recruitment*

Abstract

Research background: Nepotism is one of the forms of favouritism occurring at people's workplace. This the reason why it creates a problem for managers in charge of organizations, ethicists, and psychologists. Although nepotism as such is in principle negatively assessed, the employment of family members, especially in family businesses, is often considered natural and it can benefit the organization if certain conditions have been met.

Purpose of the article: The goal of the article is to analyse the perception of nepotism occurrence in Polish small family businesses, as well as to identify nepotism related factors, both beneficial and unfavorable ones.

Methods: A qualitative study aiming at enhancing the knowledge concerning nepotism range in family businesses in Poland, followed by a quantitative study, performed to verify the information obtained in the qualitative study.

Findings & Value added: In Poland there is noticeable paucity of empirical research concerning the nepotism phenomenon. As a result of the studies which have been carried out, identification and stratification of positive and negative factors connected with nepotism in family businesses will be possible.

Michał Jachowicz

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Advertising of the pharmacy and its activity considering the theory of enterprise competitiveness

JEL Classification: *E62; K20; K32; K33*

Keywords: *advertising; competitiveness; enterprises; national economy; pharmacy activity*

Abstract

Research background: On a macroeconomic scale, competitiveness is conditioned by both the actions of institutions at the central level, decisions taken by the legislative and executive authorities, as well as the potential of entrepreneurship, which is diversified depending on the level of socio-economic development of society. In turn, the economic, legal and administrative environment created by the state has a significant influence on the possibilities and way of conducting economic activity, because this environment shapes the external factors of the enterprises competitiveness.

Purpose of the article: The purpose of this article is the legal-economic analysis regarding advertising of pharmacies and their activities, taking into account a broad spectrum of doctrinal and jurisdiction views. The subject of the analysis is the function and significance of advertising as shaping the potential of enterprise competitiveness in the context of pharmacy activity.

Methods: The article uses the method of legal regulation analysis.

Findings & Value added: Taking into account the admissibility of the statutory limitation of the principles of shaping an enterprise competitiveness potential, the necessity should be emphasized of correct interpretation of the law, taking into account the objectives of the introduced restriction and applying only a proportional and adequate mechanism for sanctioning its infringements. In the context of the activities of pharmacies, as public health care facilities, the above remarks have special significance. The undisputed supremacy of the public purpose of a pharmacy activity can not deny the importance of an economic goal as the basic mecha-

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nism of an enterprise activity, the achievement of which is an economic guarantee of the public purpose implementation.

Dominika Jakubowska, Monika Radzymińska
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Health and environmental values in food choices: a study of Polish and Czech students

JEL Classification: *A14; D12; D91; L66*

Keywords: *consumers; health-related attitudes; environmental concern; food*

Abstract

Research background: Health and environmental concerns linked to food production and consumption have become crucial both for policy makers and for consumers for modern society. Some consumers are becoming increasingly careful about what they eat, giving value to the impacts of everyday food choices on their health and on the environment. There have been few studies that have jointly analyzed these consumption patterns and that have looked for their association.

Purpose of the article: The objective of the study is to develop a consumer segmentation based on health and environmental concerns in food choices among Polish and Czech students.

Methods: A total of 631 students from two Universities – one in Poland (University of Warmia and Mazury in Olsztyn (323)) and one in Czech Republic (University of South Bohemia, (308)) were selected to participate in the research. Data were collected through a survey questionnaire, in which a Likert type scale was used to determine the health and environmental values in food choices. The results obtained were analysed statistically using Statistica 13.1 using Principal Component Analysis (PCA) with Varimax rotation, cluster analysis using the k-means method, ANOVA and post hoc Tukey's test.

Findings & Value added: The results show that consumers are segmented into two clusters with differing health and environmental values. The first cluster of consumers (57% of Polish students, 54% of Czech students) is characterized by strong health-related values and passive environmental attitudes. Cluster 2 (43% of Polish students, 46% of Czech students) is characterized by consumers who are less concerned about health-related values and do not take into account environmental aspects of food selection.

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The most important factors influencing the level of remuneration in a select group of employees

JEL Classification: *J33; M52*

Keywords: *compensation of work; remuneration of CEOs; human capital; management*

Abstract

Research background: An essential component of forms of remuneration is definition of the most suitable method of remuneration. Today, the most effective method appears to be linking managerial remuneration with an indicator of economic added value which follows company development over a long time period. There is no doubt that the system of remuneration in place must be motivational for employees, since their performance and motivation determine the desired company results.

The purpose of the article: The aim of this article is to reveal concrete specifics in the system of remuneration of managers at selected concerns in the Czech Republic. In the article, the authors also attempt to confirm the basic hypothesis that the level of managerial remuneration is dependent on the size of the concern and on market developments. The data is studied over the period 2000–2018.

Methods: Analysis of the available academic literature is used to achieve the principal goal of the article. The article is also based on the results of a questionnaire investigation conducted by the authors. The respondents were top managers at large concerns in the manufacturing industry in the Czech Republic. Data was evaluated with the use of mathematical and statistical methods. A Chi-quadrat test, Spearman's correlation coefficient and Kendall's rank correlation coefficient were used to verify the hypotheses, and a resultant simplified model was created by factor analysis.

Findings & value added: The findings show that the most significant factors influencing managerial remuneration include the performance of the concern, the development of GDP and the personal characteristics of the manager. There is a close direct relationship between the development of GDP and the level of remuneration. These results may be used for the creation of a new methodology of remuneration which may contribute to more effective evaluation of top management and contribute to company development.

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University of Social Sciences, Poland

Creation of value for customer in logistics – management process in SMEs in the light of sustainable concept

JEL Classification: *L9; M14; Q05*

Keywords: *sustainable; logistics process; management; value for customer*

Abstract

Research background: In the light of modern trends of realization of sustainability concept necessary to hold a discussion about model of logistics process management in SMEs. Acceptance of sustainability concept needs from SMEs complying all imperatives required to realization of sustainability development. In the management of logistics processes in the enterprise of SMES there are similarities both to structure processes as well as their pass in large companies.

Purpose of the article: Significant place environmental impacts logistics deal with transport processes, processes, storage and management processes of packaging.

Methods: The article proposes a conceptual model for creating value for the client taking into account the multicriteria approach, in line with the objectives of sustainable concepts. These criteria are included in the global concept of sustainable development is based on three assumptions.

Findings & Value added: The first of these relates to ecological-of stopping environmental degradation and elimination of its risks, the second involves economic issues reflected in the satisfaction of basic material needs of humanity by using technique and technology are not destructive of the environment, the third objective include social issues and humanitarian. This article presents the results of the pilot studies, the case study which purpose was to review conceptual model in company SMEs.

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External imbalances in the global economy after the crisis 2008+

JEL Classification: *F21; F3; F65*

Keywords: *international capital flows; external imbalance; current account; global economy; crisis 2008+*

Abstract

Research background: In the contemporary international monetary system a compensatory mechanism does not work properly to eliminate the excessive surpluses/deficits on the current accounts of the major countries participating in international trade. As a consequence of such a situation the adjustment changes do not take place in an evolutionary way through the process of the market changes or decisions taken by the national authorities, but first of all they are result of crisis events that reflect the unfavourable macroeconomic situation in different countries.

Purpose of the article: The aim of the article is to analyze the functioning of the compensatory mechanism in the contemporary international monetary system and the circumstances of the emergence of the significant imbalances on the global (US-China) and regional (the eurozone - the single currency area) level.

Methods: Qualitative: the analysis of the rules and limitations of the contemporary international monetary system/single currency area; quantitative: analysis of the selected macroeconomic data (inter alia current account balance, net IIP); source: WEO IMF, EUROSTAT – Macroeconomic Imbalance Procedure; covered period: 2007-2017.

Findings & Value added: Increasing external imbalances are an immanent systemic feature of the contemporary international monetary system. The lack of the compensatory mechanism in this system leads to potentially cyclical emergence of such imbalances and their correction by the crisis events. It means that the current post-crisis period may only be a stage before the next period of growing imbalances. The remedy for this threat is to correct the existing principles of the system. The same conclusion applies to the mechanism of the euro area functioning.

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Real interest rate differentials between the CEE countries and the EMU

JEL Classification: *E44; E52; F36*

Keywords: *real interest rates; Central and Eastern Europe; Economic and Monetary Union; financial integration*

Abstract

Research background: The question of changes in real interest rates differentials between the EMU and the CEE countries in the last years is raised because of two main reasons. The first rationale is related to the growing importance of external financial factors for the CEE economies and their monetary autonomy. The second reason is associated with the unprecedented shift in monetary conditions in the EMU, brought about by negative interest rates policy and unconventional policies, and the way it impacts the real rates in the CEE economies.

Purpose of the article: This paper aims at exploring the relationship between real interest rates in the EMU and ten CEE countries: Albania, Bulgaria, the Czech Republic, Hungary, North Macedonia, Moldova, Poland, Romania, Turkey, and Ukraine. The analysis covers the years of 1999-2018, comparing the periods before and after the financial and economic crisis.

Methods: We employ Markov-switching regression to construct the ex-ante real interest rates series in each country, using monthly data on short-term interest rates and CPI inflation rates. The battery of unit root and stationarity test, both standard and panel ones, is applied to examine the real interest rate parity, also allowing for a structural break in the rate differentials.

Findings & Value added: We provide detailed evidence on the real interest rates differentials for all of the ten CEE countries vis-à-vis the EMU. We find that, while panel unit root tests point to the stability of real rate differentials, there are significant dissimilarities across the countries. The majority of economies, however, reveal similar patterns of stationarity in real rates relationships. Unexpectedly, we find differentials for the Czech Republic, Hungary, and Poland, countries highly integrated into the EMU economy, to be unstable over time. The onset of the economic crisis (ca. 2008-2009) marks a structural change in the real interest rate relationships for some of the countries.

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Housing situation in the post-state agricultural farms villages in the Eastern Poland

JEL Classification: *O18; H75; R21; I32*

Keywords: *housing situation; State Agricultural Farms; rural areas*

Abstract

Research background: The housing situation in Poland, understood as the category of social policy, is considered one of the most difficult social issues. Analyzing the most important indicators of the housing situation, which are used in international comparisons, it turns out that in terms of the independence of housing and housing standards, Poland is one of the last places in the European rankings. According to housing experts, in order to achieve the standards set by the developed countries of Western Europe, about 1 million dwellings should be built in Poland. Among many problems that hinder the overcoming of current difficulties, the ownership structure of Polish residential real estate is also mentioned, as well as the housing market for rent, which is still inadequate to the real demand. As a result of the political transformation in 1989, the State Agricultural Farms (PGR) ceased operations in Poland. The standard of employee flats was not the highest and often still remains the same. Their service and use poses many problems, both to the State Treasury and to the residents themselves.

Purpose of the article: The aim of the article is to diagnose the housing situation of the former state-owned villages of the Braniewo county (NUTS 4), whose inhabitants are struggling with a number of socio-economic problems with high unemployment at the forefront.

Methods: According to Andrzejewski (1987) The housing situation is examined by means of index analysis of resources (with equipment in basic sanitrannical installations at the forefront) and qualitative indicators of the use of these resources with the independence of residence at the forefront. For the comprehensive assessment, a questionnaire was also used, addressed directly to the residents of the former state-owned farms of the Braniewo county.

Findings & Value added: Among the most important problems related to the use of flats that previously belonged to PGR assets, one should mention: low housing standard, poor technical condition of buildings, multiplicity of ownership forms within one real estate and numerous barriers to housing improvement lying on the side of people using this resource. The result of this research are recommendations

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that can be used by local authorities and the property manager of the State Treasury.

**Abdul Bashiru Jibril, Miloslava Chovancova,
Michael Adu Kwarteng**

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Do brand matter in buying decision of ‘used-products’? A review of empirical literature

JEL Classification: *M1; M13; M31*

Keywords: *Brand; buying decision; Used-products; Retailing market; Consumers’ motivation*

Abstract

Research background: The growing and widespread of consumers’ retail market-place has been polarized heavily by used-products which is popularly called second-hand goods. Even though the demand for these products over the years and till now had largely been influence by the price of these ‘goods’ in question. Adding to this is consumers’ income, brand stimuli and among others to a larger extent also inclusive in determining consumers’ motivation in buying used-products.

Purpose of the article: This paper aims at reviewing extant literature on brand motivations (constructs) as variables informing and triggering the buying of used-products. It also analyses the consistencies and discrepancies in measurement items of brand constructs (such as brand loyalty, brand experience, brand reputation, brand image and brand origin) as they were highlighted in previous articles. The paper seeks to draw attention to used-product retailers by pinpointing to them on how brand plays a key role in consumers’ buying decision process on used-product.

Methods: In doing so, we patiently took a systematic review of 83 published articles up to 2017 tapped from reputable journals indexed in Scopus, web of science, and science direct data base for this study. Meta-analysis was employed and aided in quantitative interpretation given that brand motivations as independent variable had a significant relationship and also brand as a predictor in buying decision process of second-hand goods.

Findings & Value added: Findings show that brand attributes including and not limited to brand loyalty, brand experience, brand reputation, brand image and brand origin were reviewed and confirmed positively among shoppers’ decision in buying used-product. The practical implication of this study would be a wake-up call to traders in second-hand goods retailing market in their quest to have a large market share by taking into consideration the competitive nature in the retailing market as well as recognizing consumer’s taste and preference. The theoretical benefits offered a deeper understanding of consumer behavior and brand manage-

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ment in the field of marketing and economics regarding buying decision process
towards used-products.

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Transformation scenarios of energy balances with dominant coal consumption in European economies – theoretical and empirical perspective

JEL Classification: *F62; F64; O13*

Keywords: *energy balance; European economies; links between energy policy and economy*

Abstract

Research background: Energy policy is strictly connected with economies' development and its optimizing is an important issue especially in the contemporary European environmental conditions. Therefore, the first part of the article examines theoretical possibilities of changes in energy balances and their consequences for the economy in the perspective of European legal and environmental conditions. In the second part of the article, 7 European economies with the largest share of coal in energy production in the year 1990 are examined. Particularly, the analysis of the trends in their energy balances in 1990-2017 is conducted. At the end of the article, a comparative analysis is carried out, the economic consequences of identified changes are assessed, and recommendations are formulated aimed at optimizing the structure of the energy balance in the future.

Purpose of the article: The main purpose of the article is to identify possible scenarios for the transformation of energy balances with dominant coal consumption in European economies.

Methods: The research uses data on non-renewable energy consumption and renewable energy resources and total energy consumption. The research methodology includes: analysis of structure and dynamics, evaluation of trends and comparative analysis and elaborating of development scenarios.

Findings & Value added: Generally, there are four theoretical and empirical patterns of transformation scenarios of energy balances with dominant coal consumption: 1) using another non-renewable energy resources; 2) replacing non-renewable energy resources by renewable ones; 3) using nuclear energy instead of coal; 4) increasing coal consumption as available and efficient energy resource. The research results identify transformation scenarios of energy balances with dominant coal consumption in European economies.

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Evaluation framework of seaports' competitiveness increasing projects

JEL Classification: L9; O22; P5, R42

Keywords: *competitiveness; investment project; evaluation; seaports.*

Abstract

Research background: Seaports operate on a highly competitive global transport market. To retain its competitive position a port (terminal) must strengthen its competitive advantages in all fields of activity (Palmowski & Tarkowski, 2016). In order to implement this competitiveness increasing strategy various investment projects should be considered and evaluated to determine the most effective solutions. In our previous research we created the evaluation model of seaports' performance that enabled assessing the financial situation of the organisation and determining its position in the market in relation to its competitors (Ignasiak-Szulc, Juscus & Bogatova, 2018). The proposed economic model assesses the financial and economic status of the ports, and, based on the calculated evaluation index, allows determining the situation of a particular port in relation to its competitors and identifying correlations among various aspects of evaluation. The benchmarking approach used in the model conveys the main determinants in selecting the best suited investment projects.

Youcef J-T. Zidane et al., 2015 emphasize the need to evaluate the project in at least two dimensions: accomplishing the result goal of the project (project delivery at the completion of the project according to plan) and accomplishing the effect goal (effects of the project, once it has been completed). The effects of the project can further be categorized into two dimensions: Effects (benefits) for the organization that undertakes the project and effects (benefits) for society. Therefore, there are three major levels of goals (Johansen et al., 2009; Samset, 2007), based on which a project can be looked at and evaluated.

Purpose of the article: This paper analyses the project evaluation methods and develops evaluation framework for seaport's competitiveness increasing investment projects.

Methods: In the course of the analysis on the investment projects evaluation models the systematic, comparative and logical analysis of the scientific literature has been employed. The theoretical data processing method has been used to summarize and present conclusions and recommendations.

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Interview with customers in management of logistics customer service

JEL Classification: *L21; L91*

Keywords: *management; logistics customer service; transport enterprises*

Abstract

Research background: Communication with customers on the proper execution and assessment of logistics service is the basis for deepening customer needs, understanding the reasons for customer satisfaction or dissatisfaction with service, conditions accompanying the assessment of logistics customer service.

Purpose of the article: The purpose of the article is to present the results of research on the implementation of a selected logistic management task of customer service, i.e. conducting of interviews with customers in order to determine the importance of the service itself and its individual components in commercial cargo transport enterprises in the Silesian province.

Methods: The paper is predicated on the survey results of the research realized on a sample of 147 commercial cargo motor transport enterprises situated in the Silesian Voivodeship. Afterwards on the basis of the collected primary data, there has been made an attempt to examine the dependence of the selected areas of logistics customer service, occurring in the surveyed cargo transport companies of the Silesian Voivodeship, on the size of these entities.

Findings & Value added: The respondents' answers depending on the size of enterprises usually confirmed that with the increase of the size of the surveyed entities, they showed an increasing tendency to carry out the logistics customer service measurements. Entrepreneurs of larger business units more often and more accurately carry out research determining the scope and level of logistic customer service both among the recipients of their services and within the enterprise, thus they are more determined to perform the task in question, managed by logistic customer service.

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Innovation in cost management and business competitiveness

JEL Classification: *O16; O31*

Keywords: *cost management; innovation; competitiveness; modern methods; performance*

Abstract

Research background: Business costs are an important economic category and an integral part of performance evaluation, success rate and overall performance of business subjects. The use of new cost management methods, or use of improved analysis of the environment and consumer behavior became new trends, which businesses use to ensure competitive advantage, maintaining and stabilizing market share, or sustainable development. Innovation and modern methods of cost management present a real tools for promoting competitiveness.

Purpose of the article: The aim of the paper is to analyse current trends and changes in cost category, to describe the possibilities of innovation in cost management, to present modern methods enabling performance increase and to maintain the competitiveness of the company.

Methods: In the course of research the following scientific methods were used: analysis, synthesis, deduction, comparison, questionnaire, and monitoring.

Findings & Value added: Cost management is a substantial and important challenge for entrepreneurial subjects. Influencing of costs through new modern methods allows entrepreneurs to establish themselves successfully in global markets. Open markets, stronger competition, increased number of products on the market, and customers increasingly changing their behavior, have become key points in identification of new areas to meet new entrepreneurial subjects ambitions. The results of research have shown that entrepreneurs respond positively to innovation in cost management. Important factors, however, are the conditions for implementing new methods, increasing the performance of the company and ensuring its competitiveness. The main contribution of the paper is the presentation of research results on the use of innovations in cost management, the implementation of modern methods to increase the company performance and competitiveness.

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Practices of knowledge management processes: is it often overlooked asset? A comparative study of selected public and private commercial banks in Sri Lanka

JEL Classification: *M10*

Keywords: *Knowledge Management; Knowledge Management Process; Banking Sector*

Abstract

Research background: Knowledge Management (KM) is generally known as the process of generating, capturing, organizing, storing, disseminating and applying knowledge in an organization. Every organization finds knowledge as a very valuable asset, as need for better management of knowledge has become imperative for organizations to remain ahead of competitors, gain popularity among equals and become an integral asset for organizational functionalities. There is a clear indication that banks, both in the public and private sectors, can highly benefit from the adoption of KM. Nevertheless, one general question arises: which sector would be better off with the adoption? Since KM demands key investments of its enablers, a careful knowledge management process should be examined so as to determine a better KM implementation for sustainable success.

Purpose of the article: This study aims to examine the knowledge management processes as practiced by designated public and private banks in Sri Lanka through an empirical analysis to determine whether there are differences in the knowledge management practices of the two sectors.

Methods: The unit for analysis is banks i.e. both in the public and private sectors. The questionnaires were distributed to all the managers in various branches of the banks so as to record a high rate of return. There are two sections in the questionnaire whereby each one addresses each of the two study objectives respectively. A total of 159 responses were gathered through a survey of questionnaires containing 24 questions related to the six constructs of the KM process. SPSS version 23.0 was employed to measure the reliability of the variables. The correlation for each dimension was then obtained and structural equation model was used to assess the confirmatory factors analysis on employee to estimate, so that over all measurement model would be estimated.

Findings & Value added: The result showed that there is a statistically clear variance in the mean of knowledge process scopes and KM practices between both the banking sectors in Sri Lanka. This study contributes to the existing body of knowledge by bridging the gap in researches concerning KM practices in the banking sector. The novelty of this research lies in its attempt at comparing KM processes as practiced in the public and private sector banks in Sri Lanka. The empirically derived findings offer practical recommendations to the banking sector were also enriched with the application of instruments that have been proven to be reliable and valid.

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Strategy of investment funds in the extension of multiple fund investment model

JEL Classification: *G11 Portfolio Choice; Investment Decisions*

Keywords: *Optimal strategies; Bellman equation; Cooperative games; Investments*

Abstract

Research background: Amount a lot of decisions, at which a company may arrive, no one brings to bear influence than employment of capital. Such investment decisions define the line of a business and further its market-value. That is why it is not a surprise that companies, business angels and private investors pay such a critical attention to this question.

Purpose of the article: There is a lot of economic literature that consider the problem of investment decisions. In most of them the investors are ranked as individual agents who don't have any attribute. Investment opportunities of an agent didn't depend on fund's characteristics and agent's parameters. The aim of the article is to identify functional connection between agent's investment opportunities and attributes of an investor and a fund.

Methods: The multiple fund investment model is analogous to the transportation model. The transport situation can be considered as an investment model with parameters, in which players control funds. The multiple fund investment model regards such situations, in which investors plough into one or many funds. Investors will face some limits. Investor's investment opportunities depend on behavior and action of other players. The profit received by investors can be different too. In this study, it is used capital distribution solution between investors by Bellman's equalization.

Findings & Value added: In the research paper are considered optimal strategies of funds' action for attracting investment by known investors' attributes. The authors defined graded principals of borrowed funds functional connection commitment in better characteristics. In consequence of analyzing of optimal strategies of funds investment in characteristics' improvement, distinguish those investors who cannot compete with others without association in coalition because either they

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have exaggerated preferences which are not profitable for fund's improvement or they don't have enough capital for competition with others.

Alena Kalinina, Valiantsina Lialikava

Yanka Kupala State University of Grodno, Belarus

Iwona Skrodzka

University of Bialystok, Poland

Quality of life in Poland and Belarus – cross-regional analysis of selected indicators

JEL Classification: *I31; R13*

Keywords: *quality of life; quality of the population; living standards; quality of social services; the quality of the ecological niche; the cultural state of society*

Abstract

Research background: Quality of life is not a new economic category. Currently, most of the developed economies, in addition to macroeconomic indicators, also analyze indicators related to general well-being and the quality of life of the population. The authors stress, however, that it is still difficult to agree on a definition of this category as well as the measurement method, because of the unobservable and multidimensional nature of the phenomenon. There are many proposals for measuring quality of life, but there are significant differences between methodologies and results. Despite this diversity, some similarities can be identified, among them similarities in the selection of observable variables (indicators) defining the quality of life.

Purpose of the article: The purpose of the paper is to analyze the regional differentiation in the values of selected quality of life indicators in the Polish and Belarusian regions.

Methods: The set of indicators has been developed taking into account the available literature as well as based on experience of the European Union and Russia. The indicators have been grouped by the following blocks: quality of the population, standard of living, quality of social services, the quality of the ecological niche and the cultural state of society. The empirical material comes from statistical databases of Statistics Poland and National Statistical Committee of the Republic of Belarus.

Findings & Value added: The statistical analyzes made it possible to distinguish the indicators that diversify the quality of life most in the Polish and Belarusian regions and enabled the comparative analysis of Polish and Belarusian regions due to the values of selected indicators. The obtained results are the starting point for

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further research on quality of life, taking into account the application of the multi-dimensional statistical analysis method.

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Economic attributes of quality and competitiveness on the road freight market

JEL Classification: L6; O18; R41

Keywords: *transport economics, road freight transportation, transportation markets, service quality*

Abstract

Research background: Road freight transportation market is characterized by dynamic structure and changing conditions of competition. Non-price factors seem to have a significant impact on long-term competitive position of road carriers. The basic quality attributes of transport services are safety and timely deliveries and are determined by the clients. Many studies on quality on the transportation markets concern the user perception or certified management systems.

Purpose of the article: Improving service quality is associated with organizational changes and involvement of human and capital resources. At the same time, it does not necessarily mean implementing ISO standards. The purpose of this article is to identify factors affecting the quality of services and the competitiveness of road freight companies. The reference point of that analysis is the market supply and economic activities taken to improve service quality. In addition, an attempt was made to determine the relationship between quality and competitiveness. The analysis includes endogenous (actions taken by carriers and need of investing) and exogenous (regarding transport and economic policy) factors. Taking into consideration the economic aspect of improving service quality and carriers perspective the article aims at enrichment the information niche.

Methods: The research was carried out on a sample of 134 road freight transport companies. The respondents were subject to 17 factors in terms of importance in shaping quality and competitiveness. The research was conducted on the basis of the questionnaire. In the interpretation of collected data position and variability indexes, univariate analysis of variance (ANOVA) and Pearson r correlation coefficient were used.

Findings & Value added: The results proved that the endogenous factors were the most important in creating quality of road freight services. They include, among others, educated staff, technical condition of vehicles and ensuring the safety of transportation processes. In addition it was pointed about that there is positive correlation between service quality and competitiveness.

Arkadiusz Kijek

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Technological convergence across European regions

JEL Classification: *R12; C23; O33; O47*

Keywords: *technological convergence, TFP, EU regions*

Abstract

Research background: In the face of a key role of innovations and technological progress in regional development and the crucial importance of regional spatial dimension in innovation processes the analysis of technological convergence in the regional scope becomes an essential research problem. Technological convergence could be identified on the basis of the analysis of total factor productivity (TFP). The significance of the technological convergence analysis results from the fact that income convergence can be both accelerated or impeded, depending on whether the initial differences in the level of technology (TFP) decrease or increase over time.

Purpose of the article: The aim of the paper is twofold. Firstly, we attempt to develop a theoretical framework for the analysis of the technological convergence. Secondly, we investigate the technological convergence (on the basis of the TFP analysis) across European regions.

Methods: In the first stage of the research, we employ the multiplicatively-complete Färe-Primont index to calculate TFP. The second stage of the study includes estimation of spatial panel models which are applied to assess the level of technological convergence across European regions. The research sample consists of 256 European Union (EU) regions at NUTS 2 level.

Findings & Value added: The results of the study confirm a clear division of Europe into the Western European regions with high TFP values and the Eastern European regions with low TFP level. The research also shows that in the Eastern European regions the process of making up differences in the productivity level is stronger than in Western European regions. Since the issue of technological convergence is still not sufficiently explored in the relevant literature our paper attempts to fill a cognitive and methodical gap in the investigation of the technological convergence of the European regional space.

Tomasz Kijek

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The relationship between TFP and innovation performance: evidence from EU regions

JEL Classification: *R11; R12; O31; O33; O47*

Keywords: *TFP, innovation, knowledge spillovers, EU regions*

Abstract

Research background: Total Factor Productivity (TFP) determines how efficiently and intensely the available inputs are used and combined in production process. To enhance the performance of TFP its determinants should be indicated, enabling policy actions to focus on them. Since the ability to create and absorb innovation is regarded as a crucial factor of economic development, the investigation of the impact of the level of regional innovative performance on TFP distribution across EU regions is an important research problem.

Purpose of the article: The aim of the paper is twofold. Firstly, we attempt to make a theoretical framework for the analysis of the impact of innovation on TFP. Secondly, we measure TFP levels for regions in the EU and find whether innovations account for the observed regional differences in TFP.

Methods: The research sample consists of 185 European Union (EU) regions at NUTS 1 and NUTS 2 level. The regional data on GDP, employment and gross fixed capital formation come from the Eurostat. The source of data on the level of innovativeness of European regions is the Regional Innovation Scoreboard. To calculate TFP, we use the multiplicatively-complete Färe-Primont index. We employ spatial autoregressive model to study the effect of innovation on TFP.

Findings & Value added: Our findings show a high degree of dispersion in TFP across EU regions. We find a positive impact of regional innovation performance on TFP. Although theoretical papers on economic development and regional economics suggest that improvements in TFP are key to regional economic performance, and that innovations are crucial to gain such productivity effects, there is a dearth of empirical studies on the link between innovation and TFP at the regional level. Therefore, the paper attempts to fill this gap providing the evidence of positive effect of innovation externalities in improving TFP in European regions.

Mikołaj Klimczak

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Signalling the quality through warranty – lemons and peaches in new car manufacturing

JEL Classification: *D02; D22; D82; L14; L15; L62*

Keywords: *signaling; information asymmetry; new car markets; warranty*

Abstract

Research background: In 2017, almost 73.5 million new cars were produced worldwide. China is a leading car manufacturer with almost 25 million units produced. The passenger car is a highly differentiated product. Manufacturers are trying to use the product proliferation strategy to cover each market segment and majority of geographical markets. This means that the buyer has genuine problems in choosing the brand and model of a new car to buy. In addition to the obvious characteristics, both objective and subjective, buyers can also compare the less obvious ones, namely the conditions and duration of the warranty.

Purpose of the article: The aim of this paper is to examine the relationship between the duration and conditions of the warranty and objective measures of car quality tested by using failure rates reported by several different organisations. The working hypothesis is that car manufacturers tend to signal the quality of the car by offering better conditions and duration of the warranty.

Methods: The main methods used in the work will be simple statistical methods and a case study method. The author will choose some more or less popular new cars and compare the conditions and duration of their warranty with the evaluation of their quality.

Findings & Value added: Testing the hypothesis will provide meaningful information on how car manufacturers compete and will further stimulate the signalling theory initiated by Michael Spence in 1973. Disproving the hypothesis does not necessarily mean that signalling is not an effective tool for reducing information asymmetry, but rather that there may be other variables influencing manufacturers' choices.

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Communication of CSR through social media: the case of Barbie

JEL Classification: *M300; M310; M370*

Keywords: *Marketing; Image; Media Advertising*

Abstract

Research background: Social media today is one of the main platforms where the organization and its potential consumer meet. Social media channels that are gaining popularity every day are a great environment for communication that helps to reach the masses and create more value for the product. One of the key aspects of creating added value is corporate social responsibility. As the number of Internet users is growing, the importance of communicating corporate social responsibility in social media is also increasing. Every day, various organizations launch hundreds of social responsibility campaigns on their social media platforms to contribute to improving public welfare and strengthening their reputation. This article will look at the case of Barbie brand and how it communicates through various social media channels, revealing its corporate social responsibility.

Purpose of the article: The purpose of this article is to analyse how Barbie brand executes and communicates its corporate social responsibility campaigns in social media, what socially responsible campaigns are made by the corporation and how it affects its image and reputation.

Methods: The article will be written by doing theoretical analysis of scientific and practical publications, by making case analysis, qualitative research and content analysis. Analysis of the CSR campaigns' content will be performed on social media platforms like Facebook, Instagram, Twitter.

Findings & Value added: This article reveals how organizations use various social media channels as a tool to spread their corporate social responsibility campaigns. It also highlights the effect of corporate social responsibility campaigns for the brand consumers.

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The importance of state aid in the innovative activity of enterprises

JEL Classification: *E60; H81; O32*

Keywords: *state aid; sources of financing; innovation*

Abstract

Research background: An important factor enabling not only survival, but also development of enterprises operating in the modern economic reality are innovations whose implementation increases the competitive potential and determines the market position. However, it should be remembered that there are numerous barriers and limitations that are reflected in the level of innovation not only of individual entities, but also of the whole country. To increase the scale of investment in research and innovation, the state often becomes responsible for creating an appropriate support system whose aim is to provide better conditions to implement innovative solutions by means of preferential and privileged operating conditions.

Purpose of the article: The aim of the article is to analyze the innovative activities of enterprises and assess the impact of public financial support for their innovative activity.

Methods: The first part of the article is based on the analysis of literature on the issues discussed. However, in the research part, based on statistical methods, the data from the CSO, PAED and OCCP studies from 2008-2016 was analyzed, which also help to assess the trend of changes in the analyzed values over time.

Findings & Value added: Support of innovative activities with public funds allows to increase the technological potential of companies and facilitates technology transfer. However, the structure of financing innovative activities indicates that the dominant source is always the enterprise own funds. Public funding stimulates the innovative activity of enterprises, but does not significantly increase their innovation. In the following years, unfortunately, the share of enterprises that have received financial support for innovative activities in general for innovation-active enterprises is not increasing. It is therefore important to match the co-financing of projects in the field of implementing innovation and R & D results to the state intervention mechanism and to create support programs promoting projects with high innovation potential.

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Diagnostics of system risk impact on the enterprise capacity for financial risk neutralization

JEL Classification: C40; C45; C 65; G32

Keywords: *enterprise financial risk; system risk; financial risk neutralization; enterprise insolvency*

Abstract

Research background: The functioning of Ukrainian enterprises in modern conditions is accompanied by unprofitability of their activity. On the back of enterprises unprofitability, there is a problem of methodical provision of financial risk management, which lies in the fact that the major part of scientific works in this area focus on the study of internal factors and indicators of financial risk. At the same time, the system risk is levelled out.

Purpose of the article: The aim of the study is the improvement of enterprises financial risk management tools based on the assessment of the company's ability to neutralize financial risk taking into account system risk effects.

Methods: The methodological apparatus includes: The "weight center" method; expert appraisal method; multidimensional factor analysis method; neural network apparatus.

Findings & Value added: As a result of the study, an approach to assessing the impact of system risk on the ability of an enterprise to neutralize financial risk is developed. The expert evaluation method is based on an integrated model that allows estimation of the ability of metallurgical enterprises to neutralize financial risks. The system risk factors, namely the factor of commodity markets state, the political and demographic, fiscal, monetary factors as well as the factor of the external balance financial estimates, were determined. By constructing a neural network, elasticity of enterprises' ability to neutralize financial risk in relation to systemic risk factors was calculated. The proposed approach allows conducting preventive financial risk diagnostics on the basis of assessing the current financial status and the ability to neutralize financial risk in an open economic system – taking into account the system risk impact.

**Małgorzata Kosała, Agnieszka Małkowska,
Maria Urbaniec**

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The influence of artificial intelligence and robots implementation on the labor market

JEL Classification: *J21; O33; J01*

Keywords: *artificial intelligence; industrial sectors; labour market; industrial relations; industry 4.0*

Abstract

Research background: The term artificial intelligence refers to the whole conceptualization of a machine that is intelligent concerning both operational and social consequences. Artificial intelligence and robots have already been adopted in various branches of industrial and services. Taking into consideration increased precision and sophistication of AI systems, they will be employed in an increasingly diverse range of sectors including finance, pharmaceuticals, energy, manufacturing, education, transport, and public services. Our study indicates how the AI and robotics influence the labour market demands in different sectors today and in the future.

Purpose of the article: This paper aims to indicate the use of the AI system in various sectors and to establish how the system implementation triggers changes in the labour market. We consider both, the current state of the art as well as future perspective.

Methods: Our research focuses on the impact of implementing artificial intelligence systems on the labour market. To achieve the primary goal of the study, we conduct qualitative analysis by examining a group of experts by using the Delphi method.

Findings & Value added: The added value of this study lies in the comprehensive overview of the range of sectors affected by the fourth industrial revolution as well as to evaluate the influence the AI on labour market demands in different sectors.

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Digital skills and labor market challenges in the era of the fourth industrial revolution: Multiple criteria analysis for European countries

JEL Classification: *J21; J24; E24*

Keywords: *digital skills; digital competencies; labour market; industrial relations; industry 4.0; European countries*

Abstract

Research background: In the era of a digital revolution business environment is transformed, and adapting to these changes is essential for every economy. The Internet, the progressive digitalization, the new industrial relations and changing interactions among different stakeholders are raising new challenges. Our study shows how the labor market demands on digital competencies can be supported to meet the expectations of the growing and continuously changing digital environment in the European Union.

Purpose of the article: This paper aims twofold: (1) to provide an overview of the new trends in developing digital competencies concerning the labor market challenges as well as (2) to compare and evaluate digital skills level and labor market challenges in European countries in this regard.

Methods: The empirical part of the paper presents a comparative analysis of digital skills in European countries based on public statistics of Eurostat. The secondary data set used covers multi-criterion information describing the research problem. The data analysis is conducted upon the TOPSIS method.

Findings & Value added: The originality of this study lies in the comprehensive overview of the level of digital competences and an assessment of their influence on labor market challenges.

Acknowledgements

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Kamil Kotliński

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Contributions to inflations after euro adoption – the case of CEE countries

JEL Classification: *E31; F31; F45*

Keywords: *Euro area; New Member States; Inflation; Euro adoption*

Abstract

Research background: Five from ten former transition countries from Central and Eastern Europe (CEE) acceded to euro area. Based on the theory, the introduction of the single currency causes a decrease in transaction costs, which in effect gives a drop in consumer prices. But there is a common perception that the introduction of the single currency is conducive to excessive price increases with this providing a sufficient justification against the introduction of the euro. People subjectively estimate information on a certain economic phenomenon, and that estimation not necessarily corresponds to facts. The discrepancy between perceived inflation and its actual level in the new euro area member states may result from different inflations levels of varying consumption categories.

Purpose of the article: The aim of the presented research is to assess the impact of the introduction of the single currency (euro) on the inflation rate in a breakdown by COICOP category in 5 countries of Central and Eastern Europe, which in the years 2007-2015 adopted the common EU currency.

Methods: The research was carried out using the comparative method. The inflation indicators were used in 12 categories of classification of individual consumption by purpose (COICOP). The research was conducted in medium-term perspectives: in the five years before the adoption of the euro and after the five years of it.

Findings & Value added: After the adoption of the euro, prices of services grew faster than the general indicator of inflation, except of Estonia. The inflation of industrial goods was lower than the overall index, and often it was even a fall in the level of prices of these goods.

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Online grocery shopping: the customers' perspective in the Czech Republic

JEL Classification: *M30; M31*

Keywords: *grocery; e-shop; customer; behaviour; online grocery shopping*

Abstract

Research background: Online shopping becomes popular among most customers thanks to quickness and easy shopping. Companies are aware of the great interest of customers and e-commerce is expanding. Significant growth experienced by online grocery purchases due to economic growth in the past few years. Online shopping attracts a lot of research interest, individual authors and this is a widely discussed topic. It should be borne in mind that online purchasing of food has its own peculiarities compared to the segment of electronics.

Purpose of the article: The aim of this study is to analyze specific consumer behaviour in online purchasing of grocery. This study takes into account the age and purchasing preferences of online grocery purchasers.

Methods: The study was conducted using quantitative research. Data ($N = 171$) was obtained by using a questionnaire survey done in the Czech Republic. The questionnaire survey contained 17 questions. For the statistical evaluation, Chi-square test and Pearson's correlation test were used. The results of the study indicate that there is a relationship between the age of customers and the using of online grocery purchases. For the statistical evaluation, Chi-square test and Pearson's correlation test were used.

Findings & Value added: The results of the study indicate that there is a relationship between the age of customers and the online purchase in the grocery field. However, customers who use the e-shop for purchase grocery are still reluctant to buy perishable goods (meat, pastries) and prefer goods that are packed directly from the manufacturer. The study puts light on understanding the customer's purchasing behaviour and their preferences in terms of quality of service, payment terms, delivery conditions, and range of assortment.

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Ex post analyses of selected infrastructural road investments in Świętokrzyskie region in 2007–2016

JEL Classification: *H43; H54; R42; R53*

Keywords: *investment evaluation; ex-post analysis; infrastructural road investments*

Abstract

Research background: A number of road investments are currently in progress in Poland. Analyses of their efficiency require a range of forecasts and estimates that are not always confirmed in practice. Risk evaluation, most commonly reduced to qualitative assessment as data on projects completed earlier is not available, is another major problem.

Purpose of the article: This paper is intended to present a rationale for ex-post analyses of infrastructural road investments and results of ex-post analyses of selected investments into roads of świętokrzyskie region completed in 2007-2016

Methods: Comparative analysis is used of selected factors key to project efficiency. The study addressed two groups of investments, namely, into national and regional roads.

Findings & Value added: The analysis will help to assess convergence of actual and planned infrastructural investment results (in particular, levels of spending and outcomes) and to identify any divergences. Ex-post results should serve to eliminate errors and improve accuracy of estimating the individual elements of investment efficiency calculus in future. Ex-post analyses also help to collect appropriate data that will enable quantitative risk analysis in the process of evaluating infrastructural investments.

Eva Kramná, Marie Paseková, Bohumila Svitáková
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The relationship between legislation and accounting errors from the point of view of business representatives

JEL Classification: *M41*

Keywords: *accounting standards; financial statements; accounting errors and frauds*

Abstract

Research background: Previous studies have demonstrated that providing of relevant information to users is positively affected by higher quality of accounting standards and adhering to ethical rules and accounting principles by accounting professionals. On the other hand, there are a lot of cases when the law was broken. The most common reason for committing financial statement's fraud include increasing stock prices, getting loans from bank or avoiding payment of taxes.

Purpose of the article: The paper aims at testing both the relationship between using of legislation and accounting errors rate in the financial statements as well as the possible using of creative accounting from the point of view of enterprises and non-profit organizations.

Methods: Among the quantitative research methods the questionnaire was used. The questionnaires were sent out to randomly 201 selected enterprises and non-profit organization. The obtained data were statistically tested. This study investigates whether Czech Accounting Standards helps in all areas of accounting and reporting and avoiding of errors in financial statements. Another aim was to find out whether the respondents encountered fraudulent procedures in compiling financial statements.

Findings & Value added: The results indicated that using of Czech Accounting Standards are perceived as useful tool in solving all situation in areas of accounting and avoiding of accounting errors. Moreover, it was proved that that the volume and frequency of errors is not significant in financial statements. The analysis showed that respondents almost did not encounter with fraudulent process or pressures to improve financial statements.

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The impact of exchange rate on the financial result of enterprises in the transport sector

JEL Classification: *R40; C58; F31*

Keywords: *correlation; exchange rate; financial result; transport company*

Abstract

Research background: Transport is one of the most important elements that have a major impact on economic development in various countries around the world. Among the main factors that affect the evolution of transport is the development of consumerism, globalization, as well as the modernization of road infrastructure. There are more and more transport companies on the market, which is supported by the dynamic pace of life and the provision of services in the shortest possible time, at the lowest possible price. Therefore transport companies are a very important economic link. Many factors affect their economic condition, one of them being the exchange rate.

Purpose of the article: The aim of the article is to show the relationship between exchange rates and financial results of Polish enterprises in the transport sector. The analysis will show the profits and costs in relation to the exchange rates (zloty to the euro and the US dollar). The expected research period will cover the years 2010-2017.

Methods: The first stage of research, based on the method of analysis and criticism of the literature, will be prepared in the area of the subject taken, including relations between the main concepts. This stage is auxiliary and constitutes a starting point for further research. Later, thanks to the statistical method, the indexes of dependence between the examined values will be estimated (financial result, exchange rates). Article will apply the data of National Polish Bank and the Statistical Office.

Findings & Value added: The basis of the conducted analyzes will examined the dependence of the financial result (including revenues and costs) on the exchange rates (PLN / EUR and PLN / USD).

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Supply chain development drivers in industry 4.0

JEL Classification: *M11; O33; L81; L86*

Keywords: *Supply Chain 4.0; Industry 4.0; Digital technologies; Supply Chain Development Drivers*

Research background: Industry 4.0 is a response to rapid technical progress, caused by the dominant role of information technology, that covers and penetrates virtually all aspects of people's economic and social activities. A characteristic feature of "Industry 4.0" is the merging of automated production, data exchange and production technologies into a single self-regulating system, with minimum to no human intervention in the production process. In the field of business, and in particular in the theory and practice of supply chain management, today we can see the use of the terms "Digital Supply Chain", "Supply Chain 4.0", "Digital logistics", "Smart logistics". This demonstrates the relevance of the implementation of Industry 4.0 innovations in the practical activities of manufacturing, trading, and logistics companies, interconnected by networking in the process of moving products or services to final consumers. In turn, this causes fundamental changes in the structure of supply chains, their business processes and behaviors, making existing approaches to management obsolete.

Purpose of the article: The purpose of the article is to conduct a thorough study of the threats and opportunities for companies to transition to a digital format of doing business in supply chains and identifying supply chain development drivers in Industry 4.0 and the influence of digital technologies, where they can have the greatest effect on each parts in the supply chain.

Methods: The article used theoretical (critical analysis of sources, data systematization, statistical analysis, comparative analysis, hypothesis formulation, etc.) and empirical (survey methods, observation, critical analysis, hypothesis verification, etc.) research methods.

Findings & Value added: Thanks to a thorough study of the paths and drivers for the development of supply chains under the Industry 4.0 conditions, this study will be valuable to both scientists and practitioners. Scientists will be able to understand

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the conceptual transformation of supply chains under the influence of digital technology. Practitioners will learn how to successfully use digital technology to create competitive advantages and build various development scenarios.

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Competing digitally – is the EU in front of, on or behind the bandwagon?

JEL Classification: *F63; O11; O33*

Keywords: *competition; competitiveness; digital economy; the European Union*

Abstract

Research background: The digital context is shaping the way in which businesses and economies compete. The development of digital technologies along with globalization forces have changed the rules of the game. In the era where innovation is the pillar of competitive advantage nations are more than ever before forced but at the same time compelled to compete on stranger tides. What are the results they achieve? Who is the leader? Who is the laggard? Is the European Union setting the trends or maybe imitating what others come up with?

Purpose of the article: The purpose of the article is to compare competitiveness investigated from a digital perspective of the EU member states against its main competitors.

Methods: The research employs secondary data on digital competitiveness of the EU economies as well as a group of other leading economies. Due to the nature of the core concept around which the research was constructed the conducted analysis is multifaceted. The spatial and temporal scope of research were designed with the aim of capturing the similarities and differences between the EU and its main competitors.

Findings & Value added: The achieved results expand the knowledge about contemporary shifts in competitiveness of the European Union member states as well as the EU's competitive potential and position against other leading economies.

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Optimalising Human Development Index with sensitivity analysis

JEL Classification: *C38; C10; O15*

Keywords: *Human Development Index; composite indicators; sensitivity analysis, rankings*

Abstract

Research background: Composite indicators are commonly used not only to measure economic development, the standard of living, competitiveness, fairness, effectiveness but are also willingly implemented into many different fields. However, it seems that in most cases the variable weighting procedure is avoided or erroneous since in most cases so-called “weights by belief” are applied. As researches show, it can be frequently observed that weights do not equal importance in composite indicators. As a result, biased rankings or grouping of objects are obtained.

Purpose of the article: The primary purpose of this article to optimise and improve the Human Development Index which is the most commonly used composite indicator to rank countries in terms of their socio-economic development.

Methods: In order to achieve the purpose mentioned above, the sensitivity analysis tools (mainly the firsts order sensitivity index) were used to determine the appropriate weights in the Human Development Index. Based on the adjusted weights, a new ranking of countries was established and compiled with the initial ranking.

Findings & Value added: It has been shown that HDI is built incorrectly by putting equal weights for all four components. The weights proposed by the sensitivity analysis better reflect the actual contribution of individual factors to HDI variability. Improved Human Development Index constructed based on proposed weights allow for better differentiation of countries due to socio-economic development.

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Assessing impact of base erosion and profit shifting on performance of subsidiaries of multinational corporations in Baltic countries

JEL Classification: *H26*

Keywords: *BEPS; tax avoidance; performance; Baltic countries*

Abstract

Research background: The problem of base erosion and profit shifting by multinational corporations has been debated from different perspectives because of its multiple impact on key actors in economy. Studies refer to its positive impact on companies via corporate taxes saved, but negative impact on governments via reduced tax collections. A number of empirical studies conducted in different countries supported views of substantial BEPS impact on company's performance, however, reporting differences in magnitude. The other authors claim that despite a wide range of tax avoidance opportunities available, tax avoidance is limited due to institutional measures imposed (tax audits, penalties for non-compliance) and high implementation costs. Majority of the previous empirical research covered large countries (USA, Germany) or regions (e.g. Europe), however, there is a gap in research assessing BEPS impact on multinational corporations subsidiaries' performance in countries with lower corporate income taxes such as Baltic countries.

Purpose of the article: To investigate the influence of base erosion and profit shifting on multinational corporations subsidiaries' performance in the Baltic states.

Methods: The empirical research is conducted based on the framework employed by Hines and Rice (1994) adopted to measure BEPS impact on company's performance. Regression analysis with fixed effects was applied for the sample of subsidiaries of multinational corporations in Baltic countries, which are characterized by low corporate tax rates, for the period of 2007-2015 (3,422 firms from Latvia, Lithuania, Estonia, 18,740 observations in total) from Amadeus database.

Findings & Value added: This is the first study employing company level data to assess BEPS relationship with profitability in subsidiaries of multinational corporations in Baltic countries. The research revealed that in Baltic countries, in spite of tax differentials between multinational corporations' parent's and subsidiary's countries, BEPS does not have significant impact on company's financial performance. Such results show that profit shifting behaviour is not significant in Baltic

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subsidiaries of multinational corporations and might suggest that due to high agency costs parent companies tend to leave subsidiary's profits at home countries.

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The dynamics of high technology sectors within global value chains

JEL Classification: *F19; M16*

Keywords: *high technologies; global value system; global value chains; strategic technology management*

Abstract

Research background: Contemporary the concept of global value system extensively elaborated by the scientists and applied by practices in the fields of management, economics and politics. Thought the processes of globalization encouraging the interest to investigate global value chain concepts but the opportunities of research in sectoral level is still not extensively explored.

Purpose of the article: The aim of this article is to provide the theoretical background of evolution of the global value system methodological approach from the global strategy management perspective. The main scholars of strategic management consider the development of technologies as the main source of added value, however the global value system concept implies that the source of added value originates from the allocation of added value activities across borders. In this article these different paradigms of added value origins are reflected.

Methods: Systematic literature analysis, descriptive statistics of high technology sectors based on longitudinal study of World Input Output data and comparative investigation of high technology sectors of different countries within the emphasis on the Baltic Region.

Findings & Value added: This article is addressed to evaluate the dynamics of the high technology sectors and encourage further research in the sectoral level in order to identify the sources of added value.

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Pre-purchase risk intensions in online second-hand goods transactions: a two-tier data mining approach

JEL Classification *M1; M13; M31*

Keywords: *Risk; Second-hand goods; Association rule; clustering, Czech Republic*

Abstract

Research background: The risk in online transactions is inevitable given consumers' intension to shop online. Though, many studies have been authored about the risk components disclosed by pre-purchasers in e-shops. The search for risky components in online transactions continues unabated, even as many online services and features linger on. Whiles online transactions pose several risks to the consumer, the addition of second-hand goods intensifies the risks to the user. As the risk factors brought about by online second-hand goods transactions persist, the magnitude of such risk inherent in the customer in question have not clearly emerged.

Purpose of the article: This paper aims at eliciting the magnitude of risky components align with the tendency to connect via online in search of second-hand goods. Again, providing insight into demographic variables in relation to the pre-purchasing risk factors; averting customers to connect via online in search of second-hand goods stands as one of the key reason for this present study.

Methods: The research adopts a two-tier data mining algorithms, notably the Association rule mining and the Non-Hierarchical (K-means) to mine relevant patterns in the data accrued from the Czech Republic, premised on risk components governing online buying behaviour of second-hand goods. To this end, a simple random technique was adopted to gather data; with 321 out of 411 respondents eligible for our analysis.

Findings & Value added: The results of the association rule technique revealed that respondents within the gender frame are both adamant to hook-up via online in spite of the fact that, they have shopped online, yet do not think of looking at second-hand goods side because of some risky influence inherent in them, even if the respondent is a mere personal user of online transactions. Consequently, the research revealed through the K-means clustering algorithm that, consumers or respondents in these regions, namely, Pardubicky, Vysocina, and Kralovehradecky regions in the Czech Republic are more circumspect concerning the zeal to embark

on online transactions specifically second-hand goods. In all these developments, the research concludes that second-hand industry needs to redesign their websites with much attention to reinforce stringent measures that will give a better assurance of the aforementioned risk factors that will tend to avert the customer from connecting via online in pursuit of second-hand goods.

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The comparison of differences in income distributions for men and women in selected countries of the European Union

JEL Classification: *J31; D31*

Keywords: *wage gap; differences in distributions; decomposition methods*

Abstract

Research background: Recently there has been an increase in interest in the studies of income inequalities. The findings of numerous empirical studies show that males earn higher wages than females. A variety of techniques of income inequalities decomposition are becoming popular. New procedures go far beyond the Oaxaca-Blinder decomposition. They allow to study differences of income distributions for various groups of people and to decompose them along the whole distributions.

Purpose of the article: The aim of the paper is to compare personal income distributions in Poland and other selected countries of the European Union, taking into account gender differences.

Methods: First, we examine the income inequalities of men and women in each country using the Oaxaca-Blinder decomposition procedure. The unexplained part of the gender pay gap gives us information about the wage discrimination. Second, we extend the decomposition procedure to different quantile points along the whole income distribution. In this case, to describe differences between the incomes of men and women, we construct the so-called counterfactual distribution, which is a mixture of a conditional distribution of the dependent variable (income) and a distribution of the explanatory variables (individual people's characteristics). Then, we utilize the residual imputation approach (JMP-approach).

Findings & Value added: In the article, data from EU-SILC (Statistics on Income and Living Conditions) were used. We found differences in the income gap along the income distribution for each country (e.g. sticky floor and glass ceiling). The results obtained for each country were compared with each other and conclusions are drawn.

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E-commerce environment in Ukraine: legal novations and the market reflection

JEL Classification: *L81; K23*

Keywords: *e-commerce; institutional environment; online trading; digitalization*

Abstract

Research background: With the development of digital technologies, traditional ways of trading are changing, with the result that the concept of e-commerce has appeared. The e-commerce market in the world is growing much faster than classic retail. The Ukrainian e-commerce market is growing at a rate of more than 30%, ranking second in pace in Europe. Wide ranges of players are directly interested in the development of the market: online stores; marketplaces; classifieds; logistics companies; price aggregators and others. The novelty and complexity of the relationship between them leads to imperfection in the newly adopted e-commerce legislation, which hinders the development of the e-commerce market. It is important to identify in time the imperfections of such legislation by predicting its impact on the development of the market.

Purpose of the article: The main purpose of this article is to present and critically analyze existing novations in the field of legislative regulation of e-commerce in Ukraine. Providing objectives are to identify ongoing institutional changes and their impact on the e-commerce market and to indicate problems, as well as to offer ways to solve them.

Methods: The paper is interdisciplinary by character. The study was carried out using the method of review of the scientific literature, general scientific methods of analysis and synthesis, induction and deduction. During the analysis of the e-commerce market, a list of regulatory acts was formed. In particular, the following laws were analyzed: "On payment systems and transfer of funds in Ukraine", "On advertising", "On protection of information in information and telecommunication systems", "On telecommunications", "On protection of personal data", "On basic principles ensuring cybersecurity of Ukraine "and others. The study used data from the State Service of Ukraine on food safety and consumer protection in Ukraine.

Findings & Value added: Based on the survey it can be stated that market regulation is consistent with European practices. Nevertheless, the analysis revealed a number of consequences of the imperfection of the Ukrainian legislation, which create barriers for market participants: 1.) Issuing fiscal checks when paying online. 2.) The inability to protect the rights of the consumer, buying of unidenti-

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fied sellers. 3.) Limited functionality of PayPal payment system in Ukraine (for exporters from Ukraine). In the study proposed ways to solve these problems.

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Critical mass and technological takeoff. Conceptualization and exemplification

JEL Classification: *O10; O33*

Keywords: *technology diffusion; technology; critical mass, takeoff; developing countries*

Abstract

Research background: This paper conceptually traces to technology diffusion theory; it also takes from the concepts of network externalities that are intimately related to the process of technology diffusion. The notions of the critical mass and technological takeoff are closely associated with the process of technology diffusion (Rogers, 2010; Lechman 2018) and positive network externalities (Economides, 1996; Carrington et al.; 2005) that are unveiled when new technologies spread over societies and economies.

Purpose of the article: This paper contributes to the present state of the art by developing a novel methodological approach to identify the *critical mass* and *technological takeoff*. The develop the term *technological takeoff* is defined as the time interval when the nature of the diffusion process is radically transformed due to shifting the rate of diffusion and forcing the transition from condition of stagnation into dynamic and self-sustaining growth (diffusion) of new technology. In this sense, the emergence of the *'technological take-off'* is essential for ensuring the sustainability of technology diffusion and enabling the widespread adoption of new technology throughout society; while the *critical mass* traces the number of individuals who demonstrate little risk aversion and thus are the first new technology adopters and the ones who propagate its further diffusion throughout society.

Methods: Throughout the paper we explain the novel methodological approach to identify the critical mass along technology diffusion trajectories as well as the technological takeoff interval.

Findings & Value added: To exemplify this new methodological approach we use a sample of 17 low-income economies for which are provide detailed estimates of the critical mass and establish the technological takeoff. For analytical purposes we use data on 2 selected core ICT indicators, which are extracted from World Telecommunication/ICT Indicators Database 22nd Edition 2018.

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Food choice motives in the consumption of elderly population

JEL Classification: M30

Keywords: *health beliefs; health perception; food choice motives; healthy eating behaviour; segment of elderly population.*

Abstract

Research background: The focus of the paper is the problem of ageing and the role of health goals and health motives in individual consumption of elderly people.

Purpose of the article: The purpose of the article is to explore the impact of health perception and food choice factors on healthy food consumption among elderly and to indicate how different food choice motives influence the eating behavior of elderly population. In our research we explore several food choice factors and their manifestation in attitudes towards healthy consumption. By identifying older people's food-related goals, their food-choice motives and the relevance of these motives in achieving their goals, we can investigate the relationship between food-related goals, motives and healthy eating. The purpose of the exploration of health perception is to identify seniors' beliefs about food and health related aspects.

Methods: Empirical research is conducted on a random sample of 400 elderly participants aged above 60 years and living in their own flats. Non-probability sampling in the form of convenience sampling is employed. The relationship between health beliefs and attitudes towards healthy eating behavior is confirmed with employing multiple regression analysis.

Findings & Value added: We come to the conclusion that both health beliefs and food choice factors investigated in the research are important determinants of seniors' healthy consumption, however with different effect on healthy eating behavior.

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Disclosure of intellectual capital in financial reports: case of Latvia

JEL Classification: *O34; M41; C83*

Keywords: *intellectual capital; financial reporting; Latvia, survey*

Abstract

Research background: Intellectual capital and its elements, such as reputation, customer relationships, staff competence and etc., is an essential part of a company's value. However, the issues regarding its recording in company's accounting books have not been solved. Proper disclosure of an intellectual capital in financial reports will increase the transparency of company-related information, thus improving the quality of reporting.

Purpose of the article: Aim was to investigate the opportunities of intellectual capital disclosure in company's financial reports from the viewpoint of accounting experts.

Methods: Financial managers, accountants, board members of accounting services companies and auditors were surveyed, using the authors' developed questionnaire. The research instrument consisted of four blocks of statements regarding the awareness of the intellectual capital and its disclosure-related questions, and a respondent profile section. Statements were offered to respondents for evaluation with a 5-point scale, expressing their agreement/disagreement. Data was processed in SPSS environment, applying such methods, as a frequency analysis and ranking.

Findings & Value added: The research findings allow making conclusions about the level of awareness of intellectual capital and its elements among Latvian finance and accounting business sector representatives, as well as allow making some valuable suggestions regarding the particular elements of an intellectual capital that should be reflected in financial reporting.

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Effectiveness of innovation and SME innovation strategies in a peripheral region

JEL Classification: *L11; L25; O31*

Keywords: *innovation strategy; SMEs; entrepreneurship; peripheral region*

Abstract

Research background: Many contemporary empirical studies and most economic growth theories recognize the importance of innovation as one of the most progressive determinants of socio-economic growth, in the regional and local perspective as well. However, much of the empirical literature has discussed the issue of effectiveness of innovation in the small and medium-sized enterprise sector without the significant results for small businesses, especially in peripheral regions.

Purpose of the article: The aim of this paper is to explore the effects of innovation strategy and implementation in a peripheral region. Based on the results of our survey, we propose classification of SMEs with reference to innovation, and test for any differences in innovation strategies: both objective (size, cooperation environment, external financial support, etc.) and subjective (cultural framework of the context of a less developed region).

Methods: Research was based on data drawn from CATIs carried out among 419 firms, therefore making a conceptual contribution to the knowledge on innovation strategy. The main statistical test for relationships and dependencies was the chi-square independence test. To arbitrate whether there were statistically significant differences between medians due to different factors among enterprises, analysis for variance (H Kruskal-Wallis' test for k independent samples) procedure was implemented.

Findings & Value added: The results of our research show that among SMEs in peripheral regions dominated those which we call 'pragmatists' and 'imitators' in context of their approach towards innovation. The significance of objective factors showed that there was a lack of enterprises that could play the role of 'creators of innovation' in the peripheral region.

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Research in sustainability of direct investments from Poland in Latvian business

JEL Classification: *F210*

Keywords: *Foreign Direct Investment; Poland; Latvia; Sustainability; International Business*

Abstract

Research background: Topicality of the research is determined by increasing uncertainty and structural change in foreign direct investments (FDI) as well as by potential role of investments from Poland in Latvian development. There are no published research results on sustainability of investment from Poland in Latvia.

Purpose of the article: to identify characteristics of sustainability of the direct investment from Poland in Latvia and put under discussion the prospects of raising these investments' sustainability.

Methods: Qualitative research methods used are literature review, personal observations, interviews. Quantitative methods used are questionnaire, time series analysis, structural analysis of direct investments from Poland in Latvia for all the years after restoration of Latvian state independency. Three pillar model of sustainability of freign direct investment is developed and applied to Latvian case.

Findings & Value added: The scientific novelty consists of introduction in the scientific circulation of primary data gained as result of interviewing of respondents and analysis of registration data on direct investment deals from Poland in Latvia. After all time record in 2016, the investments from Poland in Latvia wend down dramatically. Poland ranks 24th after Kazachstan by direct investments in Latvia. The hypothesis (the need for investments in digital economy and sustainable growth in Latvia is not satisfied by FDI from Poland) is proven. Data and charts by authors can be used by partisans of sustainable growth among decision-takers in Polans and Latvia both on macro- and micro-economic levels.

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Foreign direct investment in Poland and changes in the branch structure

JEL Classification: *F21; F23; F63; G01*

Keywords: *foreign direct investment; branch structure; economic crisis*

Abstract

Research background: The level of openness of the economy for FDI in the sectors is determined by many factors. Many of the developing countries do not have special conditions for inflow of FDI, and if they occur, they are conditioned by socio-political, cultural and security needs. In many analyzes, it is emphasized that the economic crisis has significantly affected investors' behavior. Therefore, the question arises as to whether the inflow to the sectors had a similar intensity.

Purpose of the article: The aim of the work is to present changes and assess the inflow of foreign direct investments (FDI) to Poland, taking into account the structure of the industry. An additional goal is also to indicate the variation in the inflow of capital to industries with a specific degree of technological advancement.

Methods: The analysis covered the years 2005-2016 to capture, among others the impact of the economic crisis on these changes. The analyzes for the indicated period were based on data from the World Investment Report, data of the Central Statistical Office and the National Bank of Poland.

Findings & Value added: The value of investments in 2008, when the global economic crisis began, was relatively high. It decreased significantly only in the subsequent years 2009 and 2010. The dynamics of the cumulative value of FDI before the crisis in Poland was around 10-11% per annum. In the first two years of the crisis, it was 4-5%. The period of crisis caused changes in the sector structure of direct investments. In 2016, the liabilities of the title of direct foreign investments in innovative industries amounted to EUR 53.2 billion, which constituted 30.2% of the total value of FDI liabilities. The relation of transactions in innovative industries to total transactions in 2011-2016 increased from 22.9% to 44.4%.

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Regional innovation systems of Polish regions

JEL Classification: *R11; O30; C38*

Keywords: *regional innovation system, cluster analysis, regional development*

Abstract

Research background: Innovativeness is one of the factors which contribute in economic growth of regions and help to explain differences in development of individual regions (Cooke et al., 2011; Fagerberg, Godinho, 2006; Crescenzi, 2005, Niedzielski, Jaźwiński 2002). Regions characterised by imitative way of implementation of innovations, and regions where dominate transfer of already developed technology from outside, need different ways of support of innovation activity and different innovation policy (Capello, Lenzi, 2014; Capello, Lenzi, 2013; Vale, 2011). Theoretical base of the research is a concept of a regional innovation system (eg. Weresa, 2012; Świadek, 2011; Todtling, Trippl 2011; Innmarino, 2005; Evangelista et al., 2002; Deloreux, Parto, 2005; Deloreux, 2002; Howells 1999; Autio 1998; Asheim, Isaksen, 1997; Cooke et al., 1997; Wiig, Wood 1995)

Purpose of the article: Identification of group of regions characterised with a similar level of indicators covering features of regional innovation system. Identification of regions characterised with different types of innovation activity.

Methods: Clusters of regions similar in a level of indicators for features of regional innovation system were identified with the use of hierarchical clustering (Ward's method). 16 Polish regions are analysed in years 2006-2013. 5 components of regional innovation system are included: Human capital, Social capital, Innovation cooperation, Innovation activity of enterprises, Research and development activity.

Findings & Value added: Based on the clustering results 4 types of regional innovations systems of Polish regions can be identified: (1) public R&D based regions; (2) imitative regions, (3) private R&D based region, (4) transition regions. Imitative regions are characterized with low level of both human and social capital. Private R&D regions have low human capital level, but compensated with very high social capital level. Public R&D based regions are characterised with low human capital level. Transition regions are regions where imitative activity is displaced by private R&D.

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The importance of information on environmental protection in the annual reports of oil companies

JEL Classification: *Q01; Q56; Q5; Q41*

Keywords: *information; annual reports; oil companies*

Abstract

Research background: The stakeholders of the annual reports are interested in obtaining as much information as possible about the appropriate quality in order to make the right decisions. These reports contain information about the cross-section of the company and should reflect its actual picture. Among them, you can find environmental information about the impact, shaping and management of the company's natural environment. This information is of exceptional importance in fuel companies which operational activities entail environmental risks in a significant way. They should therefore provide in-depth information to stakeholders about the impact on the environment. In practice, however, information on environmental protection is presented differently.

Purpose of the article: The purpose of the article is to show that:

- environmental information published in the reporting of fuel companies is of great importance to stakeholders,
- the quantity and quality of environmental information contained in the annual reports of oil companies are insufficient for stakeholders
- annual reports of fuel companies differ significantly in terms of information content

Methods: While writing the article, methods of induction, deduction as well as descriptive analysis of financial statements of the largest fuel companies in the world in terms of capitalization were used. The research process consisted in identifying the research problem, which is insufficient quality and amount of environmental information in the reports of fuel companies. On this basis, conclusions have been drawn.

Findings & Value added: The study indicates the important role of environmental information reported in the annual reports of oil companies. In addition, suggestions have been made to improve the information content as well as the comparability of information in the reports.

**Zuzana Lušňáková, Zuzana Juríčková,
Mária Šajbidorová, Silvia Lenčéšová**
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Succession as a sustainability factor of family business in Slovakia

JEL Classification: *M12; M51; L26*

Keywords: *family business; succession; human resources; sustainability*

Abstract

Research background: The success of family businesses abroad is not measured by profit, but is judged by the number of generations that have successfully mastered the succession process. This is why family businesses in Slovakia should also focus on long-term existence. Succession in a family business must be prepared with sufficient time in advance, as this is one of the most risk moments of its future.

Purpose of the article: Successful management of the succession process in family businesses requires several years of preparation in different areas. The aim of this paper is to assess the readiness of Slovak family companies to owner generational change in application of selected factors in ensuring the smooth transmission of family businesses to the younger generation.

Methods: The method of research was the questionnaire based on the 5-degree Likert scale, where the respondents expressed the degree of their agreement or disagreement with the particular statement. The questionnaire was filled by sample of 412 respondents - 206 family business owners and their 206 successors (son/daughter). The statistical relations and correlations between variables were performed by Cronbach alpha, Spearman test, Kruskal-Wallis' test using program SAS Enterprise Guide 7.1.

Findings & Value added: Slovak family companies has already passed or is in the process of preparing or implementing the first generational change. We can not be compared yet with family companies in Germany, USA or the Netherlands because these firms are in the process of the fourth generation change in the ownership. The added value of this paper is the identification of deficiencies and reserves that prolong or expel the process of successful company transfer to a young generation. It is related to human capital - the professional competence of the successor and the willingness of the founder to leave, the absence of important business documents, or the effort to cope with the process itself.

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Institute of Regional Research named after M.I. Dolishniy of the NAS of Ukraine,
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Institutional and innovative factors of intellectualization as the basis of competitiveness of the national economy of Ukraine in the conditions of global informatization

JEL Classification: *O11; O23; O30*

Keywords: *intellectualization; competitiveness of the national economy; postindustrial society; institutional and innovation factors; state policy*

Abstract

Research background: At the stage of formation of post-industrial society, the problem of implementation of the strategy of transition to an intellectually oriented model of economic development, complex modernization of the socio-economic system of the state was updated, which is explained by the necessity of developing new approaches to ensuring the competitiveness of the national economy in the system of world economy.

Purpose of the article: This article is devoted to the substantiation of theoretical and methodological principles and the development of practical recommendations for the implementation of institutional and innovative factors of intellectualization in order to ensure the competitiveness of the national economy in the conditions of global informatization.

Methods: In the process of research were used general scientific and special methods: synthesis and system analysis, statistical and economic analysis, comparative and indicative methods, the method of the main components, grouping, logical analysis, strategic management.

Findings & Value added: The article substantiates the methodical approach to the formation of the institutional and innovative factors of intellectualization as the basis of the competitiveness of the national economy by supplementing the exist-

ing institutional and economic, institutional and legal and institutional and organizational factors. It was defined a scientific approach to identifying threats to the process of intellectualization, which, unlike the others, are generated by the environment of an imperfect and unformed institutional environment. It has been developed the methodology for assessing the competitiveness of the national economy by expanding the traditional indicator approach by estimating the coefficients of determination of the competitiveness of the national economy and its innovation component.

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The role of costs' knowledge in the contemporary enterprises

JEL Classification: *A11; M41*

Keywords: *cost accounting; a knowledge about costs; management*

Abstract

Research background: A contemporary enterprises, to make success on globalization of market economy, needs useful information. The indispensable an economic category are costs, especially in decision process. Costs constitute the wear and tear expressed in the financial measure. Generating costs is reflecting the manner of the conducting business activities. Costs are being incurred in order to reach the income. Cost is inevitable, whereas income is probable. Therefore cost control and cost management matters. The information about cost is primarily used for: regulating the prices, closing the decisional cost and result accounts, providing "Activity Based Costing" analyses, as well as budgeting the operational and control costs. The development of cost accounting systems results from the acting globalization and growth in importance of the knowledge in managing contemporary enterprises. Essential premises of the development are: loss of timelines of the reporting cost accounting, rise in the automation and technology in the production, rise in the share of indirect costs in all-in costs and increase in the usefulness of the knowledge for the costs indirect, dynamic growth of the role of information in the business administration, increase in the costing awareness of managers.

Purpose of the article: This article's research aim is to explain the influence of cost accounting instrumentation on managing a contemporary enterprises, including the decision making process.

Methods: Deductive and inductive analysis. Analysis of logical. Reviewing and evaluating domestic and international literature on accounting.

Findings & Value added: A knowledge about costs getting from cost accounting, have a significant impact on a contemporary enterprise management.

Irena Macerinskiene, Nadezda Kucaidze
Mykolas Romeris University, Lithuania

The impact of majority-fees-majority-grants funding model and Minority-fees-minority-grants funding model on access to higher education in European Union member states

JEL Classification: *I20; I22; I23; I24; I28*

Keywords: *higher education; funding model; higher education access; tuition fees; grants*

Abstract

Research background: Higher education funding is a large and complex topic (Johnstone, 2009). It involves different economic and social aspects and should be investigated as a whole system, which provide the future of economic growth in each country and in European Union. Higher education funding models in all EU member states can be divided according to the tuition fees students pay for their studies and grants they receive, taking into account “*Four Worlds of Student Finance*”, which was suggested by Garritzmann J.L. (2015).

Purpose of the article: The article deals with higher education funding models, according to the principle of cost-sharing in higher education. Two extreme kinds of higher education funding models are chosen to investigate. The first one – is Majority-fees-majority-grants funding model and the second - Minority-fees-minority grants funding model. The impact of these higher education funding models on access to higher education in European Union member states is investigated.

Methods: systemic analysis, review and generalization of the newest scientific literature and legal regulation, statistic data analysis, comparative analysis.

Findings & Value added: The analysis will show which funding model has the strongest impact on indicators of access to higher education in European Union member states.

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Harmonization of the protection against misleading commercial practices – opportunity or threat for Central European regions?

JEL Classification: *D18; K13; M38; O34*

Keywords: *Unfair Commercial Practice Directive; harmonization; unfair competition; misleading*

Abstract

Research background: Modern European integration focuses on competition in the internal single market embracing both competitiveness and consumer protection, and aims toward the full harmonization in this arena. The hallmark, the Unfair Commercial Practices Directive from 2005, aims to overcome diverse social, political, legal and economic traditions. Is the implied protection against misleading practices an opportunity or a threat for Central European Regions?

Purpose of the article: The primary purpose of this article is to comparatively describe and critically assess the current legal framework and its interpretation and application by the CJ EU as well as national courts. The secondary purpose is to study and evaluate its impact in Central Europe, in particular whether it represents an opportunity or a threat for the smart, sustainable and inclusive growth, i.e. boosting competitiveness and innovation of business along with consumer welfare.

Methods: The cross-disciplinary and multi-jurisdictional nature of this article, and its dual purposes, implies the use of Meta-Analysis, of various interpretation techniques suitable for legal texts and judicial decisions, of the critical comparison and of a holistic assessment of impacts and consequences. The legal text and case law are explored and the yielded knowledge and data are confronted with a field search and case studies. The dominating qualitative research and data are complemented by the quantitative research and data.

Findings & Value added: For over one decade, the Unfair Commercial Practices Directive requires a full harmonization of the protection against, among other items, misleading commercial practices by legislators and judges in the EU. The exploration pursuant to the two purposes suggests that this ambitious project has a number of both positive and negative impacts on the competitiveness and innovation of business and consumer welfare in Central Europe. Therefore, it should be either readjusted or relaxed.

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Marketing metrics in customer experience management

JEL Classification: *M31*

Keywords: *customer experience; marketing metrics; customer journey; experiential marketing*

Abstract

Research background: Customer experience management is a new marketing direction that will allow companies to differentiate themselves and gain a competitive advantage. The core ability of companies adopting the customer experience management approach is to be able to understand customers' perceptions of their business that is often significantly different from the conventional company's view. It is important for companies to be able to understand customer needs and manage customer experience.

Purpose of the article: The aim of this article is to analyze marketing metrics and performance measures, including measuring marketing performance in new ways and evaluating marketing accountability and also in detail determine which of them are usable in analyzing and managing customer experience. Another goal is create and present an organizing framework to help retailers and researchers understand and develop customer experience management strategies.

Methods: Extensive secondary research of the several hundreds of research articles from years 2010–2018 indexed in Web of Science database. Content analyze of these articles.

Findings & Value added: This article finds metrics to help marketers' initiatives in increasing firm performance based on their marketing effectiveness and their ability to develop marketing strategies and determines the metrics to use for managing customer experience.

Piotr Maleszyk

Maria Curie-Skłodowska University in Lublin, Poland

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Intention to move and its determinants. Evidence from Lublin (Poland)

JEL Classification: *O15; O18; R23*

Keywords: *migration; housing satisfaction; regional development; Poland*

Abstract

Research background: Migration and residential mobility affects the spatial structure of cities and urban development intensity (e.g. patterns of commuting, using urban infrastructure). Residential mobility is also both a determinant and a result of the housing market situation. Longer-distance migration – interregional and international – has, in turn, many additional implications and affect demographic situation of a region as well as regional growth prospects.

The literature on interregional and especially international migration regards housing conditions as being at least of secondary importance. More attention to the aspects of quality of life, and particularly housing issues, is given in research on residential migration. In a seminal paper of Speare (1974), residential satisfaction was found to be the best predictor of the wish to move. However, determinants of decision to move are strongly country-specific.

Purpose of the article: We answer following research questions: 1) What is the scale and selectivity of the intention to move among city residents? 2) Do housing satisfaction, urban safety and financial situation explain variation in the intention to migrate?

Methods: The data is derived from the cyclical PAPI survey on life quality in Lublin (sample: 1101 residents). Firstly, we present the frequency distribution analysis and apply tests on statistical significance. Secondly, we build regression models explaining residents' declarations regarding different types of migration (urban migration, suburbanisation, interregional and international migration) with housing satisfaction, urban safety and financial situation.

Findings & Value added: The propensity to migrate was declared by approx. 15-30% of respondents, depending on the type of migration. We also confirm, that the intention to move is highly selective. The estimated regression model explaining

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the intention to move is statistically significant, though housing satisfaction and urban safety appear to be poor predictors of intention to move in Poland.

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Spatial inequality of the wage level, its sources and determinants: the case of modern Russia

JEL Classification: *J31; R12*

Keywords: *region; wage level; sectoral structure; spatial inequality; assessment; decomposition; convergence*

Abstract

Research background: We suppose that the dynamics of spatial inequality of wage level is attributed to both shifts in the sectoral structures of regional economies and inter-sectoral and intra-sectoral changes in wage inequality.

Purpose of the article: The paper is aimed at analysis of the factors influencing spatial inequality of the wage level in Russian Federation in 2005-2014.

Methods: We used the Gini coefficient for assessment of interregional inequality of wage level in Russian regions and the Lerman-Yitzhaki technique for its decomposition by sources (main economic activities) and determinants.

Findings & Value added: We found a weak and inconsistent convergence of Russian regions in average wage over the period under review. The decomposition of wages inequality by sources revealed that the spatial convergence was basically contributed by mining, manufacturing, agriculture, construction, and transport and communications activities. At the same time, wholesale and retail trade, financial activities and real estate activities counteracted it. The factor analysis demonstrated that the convergence of Russian regions in average wage was mainly facilitated by a reduction in inter-sectoral differences in wage level nationwide as well as by negative covariances of wages in some economic activities of Russian regions. In the meanwhile, the change in the structure of employment, namely migration of labor force from lower wage to higher wage activities, negatively affected the smoothing of interregional differences. Our findings may be applicable in the management of spatial inequality both at the regional and national levels.

Iwona Markowicz, Paweł Baran
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Ranking of EU countries according to quality of mirror data on intra-Community trade in goods – changes over time

JEL Classification: *F14; C10; C82*

Keywords: *official statistics data quality; mirror data; intra-Community trade, EU*

Abstract

Research background: Intrastat system was introduced in Poland after the country's accession to the European Union. As a system of official EU statistics, it contains data collected by member states aggregated by Eurostat on Union's level in the form of COMEXT database. Country-level data are based on declarations made by businesses dispatching or acquiring goods from other EU member states. Since the same transaction is declared twice: as an intra-Community supply of goods (ICS) in one country and at the same time as an intra-Community acquisition (ICA) in another country by the partner the database contains mirror data. Analysis of mirror data lets us assess quality of public statistics data on international trade.

Purpose of the article: The aim of the article is to prepare an EU member states ranking according to quality of data on intra-Community trade in goods collected by Intrastat. Foreign trade stimulates economic development on one hand and is the development's reflection on the other. Thus it is very important that official statistics in this area be of good quality. Analysis of mirror data from partner states in intra-Community trade in goods allows us to claim that not every member state provides data of satisfactory quality level.

Methods: In the article we used author's methodology of assessing quality of mirror data. These include data asymmetry indices, both proposed by Eurostat and authors' own proposals. We have also examined the changes in the above mentioned rankings over time.

Findings & Value added: The result of the survey in ordering of EU member states according to quality of data on intra-Community trade in goods. The rankings are presented over the period of 2013-2017, during which there were 28 member states of the EU. Changes in distinct countries' positions were shown as a result of changes in overall quality of statistical data collected in these countries. The

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research methodology can be used in the process of monitoring data quality of the
Intrastat system.

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University of Gdansk, Poland

Reasons for the entrepreneurship development in suburban areas

JEL Classification: *D91; R30; D22*

Keywords: *location factors; entrepreneurship development; SME sector; small business; urban sprawl*

Abstract

Research background: Entrepreneurship is one of the main determinants of the success of both the persons as well as the regions / countries. In Poland, dynamic development of entrepreneurship has coincided with the process of intensive transformations of the space around the cities (the suburbanization process – urban sprawl), causing the Polish suburban areas to become ‘entrepreneurship nests’, which seems to be their distinguishing feature, in comparison to the suburbanization areas in Western Europe or in the United States of America. The phenomenon of urban sprawl has been viewed as a negative process, as opposed to the other analyzed process – entrepreneurship development, which commonly has been regarded as a development stimulant of a country or a region.

Purpose of the article: The aim of this article is to present the results of the survey on the location factors of the SMEs within the suburban areas of the Metropolitan Area Gdansk - Gdynia - Sopot..

Methods: The research was carried out among 251 randomly selected enterprises from the SME sector, which are located in 7 suburban zones that are characterized by the highest level of the suburbanization process. In order to identify the location factors of SMEs, a study using the CATI method was conducted.

Findings & Value added: The results of the research show that location decisions, in large part, were made by the enterprise owners, in accordance with the behavioral theory. This means that while making location decisions, the decision makers not only consider the cost or the demand factors that are important from the perspective of an enterprise, but they mainly examine the living conditions, the quality of public space, education and health care – the factors that are important for the decision maker’s family.

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Accumulation, distribution and employment in the countries of Central and Eastern Europe: a panel var approach

JEL Classification: *E11;E17; C33*

Keywords: *Accumulation; distribution; employment; panel var*

Abstract

Research background: Post-Keynesians differ fundamentally from neoclassical economists in how they perceive the interactions between the commodities market and the labor market. In the case of Post-Keynesians, unemployment is the result of shortages in the commodity market. Thus, the variables of the commodity market determine the behavior of the labor market. In neoclassical economics, at least in the textbook version, unemployment is a phenomenon on the labor market. There is a real wage that will bring the labor market to balance. Unemployment will arise if real wages are too high, which usually results from frictions caused by governments, trade unions, etc. Although the current incarnations of neoclassical theory are more sophisticated and can sometimes give different results. The subject of this article is the Kaleckian model, and neoclassical arguments will be discussed only in the margins.

Purpose of the article: Does the increase in wages cause unemployment? Does the increase in wages lead to substitution effects? Due to the general nature of the PVAR methodology, such effects may exist. Rather, the empirical meaning of the two mechanisms often emphasized in neoclassical literature is evaluated, in addition to the Kaleckian model test.

Methods: The macroeconomic post- Kaleckian model is presented and tested using panel var (PVAR). The hypotheses studied focus on determining unemployment. The PVAR model consists of capital accumulation, capacity utilization, profit participation, unemployment and labor productivity growth, and is estimated for Poland, the Czech Republic and Hungary.

Findings & Value added: We conclude that employment is driven by demand, and the distribution of income has little effect on demand or employment. Technological progress affects the distribution of income and employment.

**Igor Matyushenko, Olesia Azarenkova,
Olena Khanova, Valeriy Reznikov, Olena Prasol**
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Assessment of innovation cooperation of Ukraine and Scandinavian countries in terms of the new industrial revolution

JEL Classification *C15; O13; O33; O52; P33; Q42*

Keywords: *innovation cooperation; Ukraine; Scandinavian countries; high-tech trade; foreign economic activity*

Abstract

Research background: The article explicates the approach of assessing the factors of innovation cooperation of Ukraine and Scandinavian countries in the face of new industrial revolution.

Purpose of the article: The aim of the paper is to assess the current state of cooperation between Ukraine and Scandinavian countries and define the most important factors for its further development in terms of the new industrial revolution.

Methods: The article presents the scheme of research of cooperation between Ukraine and Scandinavian countries on the basis of qualitative and economic-statistical analysis, analysis of comparative advantages, correlation-regression analysis.

Findings & Value added: As a result of the research, it was revealed that the main directions of innovation cooperation between Ukraine and Scandinavian countries are investment projects, technical assistance initiatives, experience and technologies transfer. The cooperation is mainly implemented in energy, information technologies, education, science and high-tech trade. Based on the analysis of economic-diplomatic component, a forecast and the dynamics of trade turnover of Ukraine and Scandinavian countries are presented, including the critical for Ukrainian economy time-frame of 2013-2014. It has been revealed that economic diplomacy plays an important role in establishing and expanding trade relations. In order to deepen the innovation cooperation between Ukraine and Scandinavian countries, the authors see the need for: (1) expanding spheres of cooperation through joint projects in infrastructure, energy, aerospace and pharmaceutical industries, and the production of components for automobiles; (2) conducting joint research on biotechnology and nanotechnology; (3) signing of agreements in order to establish partnerships between the universities of Scandinavian countries and Ukraine; (4) the introduction of state support for the aerospace industry, the creation of scien-

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tific and production clusters in this field; (5) further development and diversification of the Ukrainian IT services market and interaction with Scandinavian countries in this field.

**Igor Matyushenko, Nataliia Goncharenko,
Ivan Marchenko, Alin Sholom, Maryna Loktionova**
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Assessment of technological competitiveness of Ukraine in terms of association with EU

JEL Classification: *C150; F130; F170; O140; O240; O520; O570*

Keywords: *technological competitiveness; Global Innovation Index; high-tech products; comparative advantages; EU-28 and Ukraine*

Abstract

Research background: The paper accounts for the problem of assessing the factors of the formation of Ukraine's technological competitiveness in the face of new challenges for the state in the process of developing relations with the EU.

Purpose of the article: The aim of the report is to assess the level of technological competitiveness of the Ukrainian economy and determine the most important factors for its further development in the conditions of association with the EU.

Methods: The article presents the scheme of research of technological competitiveness of the Ukraine on the basis of qualitative and economic-statistical analysis, analysis of comparative advantages, cluster and correlation-regression analysis.

Findings & Value added: The analysis of world rankings has shown that technological competitiveness of Ukraine determines comparative factor advantages in coverage of higher education, availability of scientific staff and quality of research institutions, but low state support, lack of stability and problems in institutional development hamper the country's innovative potential. The identification of competitive advantages in trade in high-tech products demonstrates that Ukraine remains an importer of high-tech products; relatively small comparative competitive advantages among the high-tech products of Ukraine has only products of the aerospace industry. Cluster analysis showed that Ukraine is in the same cluster with Poland, Bulgaria and Romania, which have not yet fully consistent with the level of technological competitiveness of EU leaders; among the strengths of Ukraine are the development of human resources and labor effect. The correlation analysis between the components of the Global Innovation Index and the factors of increasing Ukraine's competitiveness indicates a moderate link between the development of clusters, the ratio of expenditures on R&D to GDP and the export of ICT services. In order to increase the level of technological competitiveness of Ukraine: to increase both foreign investments and state financing; improvement of regulatory acts, reduction of corruption, institutional improvement; support of

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technologies through of regional cluster programs or "smart specialization"; integration into the European Research Area.

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Lublin University of Technology, Poland

Krystyna Zimnoch

Bialystok University of Technology, Poland

Social enterprises as a prerequisite for organizational diversity and stability in the modern world

JEL Classification: *A13*

Keywords: *social economy; social enterprises; humanistic management; social values*

Abstract

Research background: The most important characteristic of social enterprises is a clear social goal outside of economic goals. In general, this goal can be formulated as the well-being of people in the enterprise. Why do social enterprises arise? The answers to this question can be provided by the perceived effects of globalization processes in the contemporary world. These processes lead to a very high in the 21st century degree of concentration of production and consumption as well as the unification of these processes. As a result, the process of dehumanizing work and alienation is progressing.

The experience of the 2008+ crisis has shown that social enterprises, including cooperative ones, have experienced less of the crisis' effects in comparison to global corporations. The variety of organizational forms of conducting business is therefore an indispensable condition for the stability of socio-economic processes. This article focuses on sustainable advantages that social enterprises can have in a dynamically changing economic environment.

Purpose of the article: The topic of social enterprises belongs to the common field of interest in economics and management sciences. The aim of the article is to indicate such specific characteristics of social enterprises from the point of view of both disciplines.

Methods: The article is of a theoretical and empirical nature. Apart from the review of literature, international statistics describing the functioning of social enterprises in the world in the second decade of the 21st century were used.

Findings & Value added: The article offers an interesting perspective on social enterprises. Dedicated literature tends to depict social enterprises as a phenomenon, a hobby activity. However, specific analyzes of their impact on the level of produc-

tion, consumption and quality of life is lacking. Meanwhile, as the article presents, social enterprises tend to have very specific economic and social goals and effectively realize them thus becoming independent, and basically finding their place in the monopolized and globalized market.

The article also presents the characteristics of social enterprises from a management- and economy-orientated points of view. Those characteristics can help in ensuring organizational diversity, contribute to the stability of socio-economic processes and enable the achievement of the welfare goal for people.

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Socially responsible investing in the European Union's capital markets

JEL Classification: *G11; M14; O16*

Keywords: *capital market; socially responsible investing; socially responsible investing strategies*

Abstract

Research background: The growing importance of the corporate social responsibility in the socio-economic sphere means that investors more and more often in their decision-making process include, alongside criteria of the effectiveness of invested capital, factors related to ecology, social development and corporate governance. This leads to diversification of capital market in which, beside the traditional investing, socially responsible investing is becoming increasingly important.

Purpose of the article: The aim of the article is to identify trends associated with the socially responsible investing in the European Union's capital markets.

Methods: The classical methods of research are used in this article, such as the study of the literature concerning socially responsible investing and the method of desk research based on documents showing trends of socially responsible investing in the European Union.

Findings & Value added: The conducted analysis showed that more and more investors in the European Union base their decisions not only on financial parameters, but also on social and environmental factors. However, this market is not homogenous. This results from both different rate of development of socially responsible investing in individual European Union Member States and the fact that this type of investing is implemented in a different way, that is determined by the investors' preferences regarding investment strategy. The article has cognitive value in regards to the development of socially responsible investing in the European Union's capital markets, as well as to strategies that are being used in this process.

**Veronika Mihálová, Daniela Hupková, Ľudmila
Dobošová, Zuzana Bajusová, Jana Ladvenicová**

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Price transmission in the milk supply chain in Slovak Republic

JEL Classification: *Q02; Q11; C51*

Keywords: *price transmission; milk; agri-food chain; sale price; consumer price*

Abstract

Research background: Milk is a general agricultural commodity. Relations in the milk supply chain affects all subjects operated at the market.

Purpose of the article: Article is focused on the market of cow's milk in Slovakia in period January 2000 - December 2017. Main research aim is to evaluate price transmission between the sale and consumer milk price in the supply chain.

Methods: The Error Correction Model (ECM) is applied to estimate the price transmission effect.

Findings & Value added: Milk production in Slovakia has decreasing trend with average decrease by 1.25% yearly and it is linked with decreasing dairy cows' herd size. Similarly, cows' milk consumption also declines by an average decrease 2.58% yearly, which may be caused of increasing number of people with lactose intolerance and substitution of milk consumption with consuming acid-based products or other supplements. In period of years 2000 and 2017 was the average milk sales price in Slovakia 43.25 EUR/100kg and consumer price was 73.46 EUR/100kg. In paper we calculated differences between milk sale price and consumer price entitled as "price scissors". The price scissors increased mostly during the first years of analysed period, contrariwise by the end of period had been decreasing. The difference between consumer and sale milk price was not constant during estimated period. The time series of sale and consumer milk prices are non-stationary and cointegrated. Based on statistical results we can state that change in the consumer milk price of examined month was affected by a change in the sale price of the examined month and also with one month before. Change of sale milk price during examined month had 13% impact on consumer milk price change which occurred in the same month. Change in the consumer price of milk by 17% in estimated month was transferred from change of milk sale price, which occurred one month before.

Paweł Mikołajczak

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Becoming business-like: the determinants of NGOs' marketization turning into social enterprises

JEL Classification: *L31; L33; G23*

Keywords: *social enterprises; marketization; NGOs, business-like approach*

Abstract

Research background: NGOs face an increasing expectation to be more business-like. They are becoming involved with selling services by performing commercial activity that in turn is a basic condition of creating social enterprises. The changes related to this approach are an essential condition for their survival and significant reason of development of their new form as social enterprises. On the other hand, there is no lack of critical opinions mainly related to mission volatility. Currently, there is a discussion in the literature on factors that may affect the NGOs marketization, however, they have not been empirically verified so far. The identified research gap made a challenge for the author.

Purpose of the article: The purpose of this paper is verifying whether conducting a business activity influences the ways NGOs act and points to the factors that have a significant impact on their marketization.

Methods: Based on the national representative survey of 3 800 of NGOs, including 412 of social enterprises in Poland one-factor analysis of variance (ANOVA) and stepwise regression analysis were carried out.

Findings & Value added: The analysis of the results confirms that there are significant differences between NGOs operating as social enterprises and NGOs not performing business activity. In contrast with existing literature, this study indicate that social enterprises have less diversified revenue sources and practice more or less democratic governance model. Moreover, Polish social enterprises less frequently adjust their policy direction to donors' interests. The factors significantly affecting NGOs' marketization include the mission of an organization, action strategies for several years, activity in favour of external benefit takers, close business cooperation, lack of permanent financing sources, and regular activity combined with flexible working time.

Dorota Milek

Kielce University of Technology, Poland

Inequalities in infrastructural development of Eastern Polish regions

JEL Classification: *O18; R11; R58*

Keywords: *regional infrastructure; regional diversification; Eastern Poland; taxonomic analysis*

Abstract

Research background: The regional development is a complex and multidimensional phenomenon. It includes the wide spectrum of social, economic and spatial phenomena. The current European Union policy of development, aimed at using internal territorial resources, creates the need for mechanisms that would enable effective management of regions' development. Infrastructural equipment, the necessary foundation for development of activities in a given area, is of major importance among factors affecting regional development by building its potential.

Purpose of the article: Evaluate development standard of selected elements of regional infrastructure and its changes in regions of Eastern Poland in 2008 and 2017. Indicators relating to condition and availability of infrastructure published by the National Office for Statistics (GUS) are used.

Methods: Z. Hellwig's standard method development and comparative analysis of infrastructural equipment in Eastern Poland and the remaining regions was applied. This approach helps to measure diversification of the condition and availability of infrastructure to regional communities.

Findings & Value added: Special attention is paid to spatial diversification in development standards of Eastern Poland regions in realisation of the research objective. The analysis has allowed to distinguish groups of regions with the highest, high, low, and very low level of infrastructure development.

Dominika Moravcikova, Anna Krizanova

University of Zilina, Slovakia

Martina Rypakova

Dedoles, s. r. o., Slovakia

Use of the STP process with the possibility of implementing a green marketing strategy in order to increase the competitiveness of enterprises in the conditions of the Slovak Republic

JEL Classification: *D12; L11; M31; P46*

Keywords: *green marketing; STP process; environmental consumer behavior; sustainable competitive advantage*

Abstract

Research background: The theoretical basis of the contribution consists of the description of the segmentation-targeting-positioning (STP) process and the competitive green-marketing skills in enterprises. The practical part of the contribution is aimed at proving the relationship between the use segmentation and the competitive position of the enterprise.

Purpose of the article: Examining segmentation of green consumers with using Hofstede's cultural dimensions in implementing a green marketing strategy as a source of competitiveness in enterprises operating in the automotive industry of the Slovak Republic.

Methods: Multiple regression, preceded by factor analysis, aimed at selecting the main factors of influence, was used to achieve the goal. In the primary information survey, we used the questionnaire inquiry method, supplemented by data from the Statistical Office of the Slovak Republic, the SK NACE classification and the Automotive Industry Association. In addition, we used the data collection, description, excerpt, comparisons, deductions, and mathematical-statistical methods.

Findings & Value added: By the analysis, we have found that the connection of environmental behavior to the values of national culture has not yet been investigated as a result of the competitive position of the enterprise. Value system that has been investigated is linked to Hofstede's cultural dimension, which implies international use. Using established hypotheses and their statistical testing, we have come to the conclusion that there is not only a relationship between environmental consumer behavior and the Hofstede cultural dimension index values but also the

competitive position of the enterprise. We also managed to get Slovak consumers ready to take alternative vehicles. The results of the findings could be incorporated into the strategy of the automotive industry not only in Slovakia, and could also help the Automotive Industry Association to submit requests to the government and help to influence the creation of stimulus measures for the alternative vehicles market.

**Carlos Mota, Adalmiro Pereira, Eduardo Vilaça,
Angela Vaz**

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of Porto (IPP), Portugal

Determinants of bank efficiency: the Portuguese case

JEL classification: *G15; G21; G34*

Keywords: *Bank efficiency; Determinants of Efficiency; Data Envelopment Analysis; Portuguese Banking Sector*

Abstract

Research background: Financial institutions; Banks; Other Depository Institutions

Purpose of the article: The objective of this study is to evaluate the technical efficiency of the Portuguese banking sector in the most recent period and to identify the determinants that explain it.

Methods: The methodology used consisted on the application of the non-parametric approach, Data Envelopment Analysis (DEA), to estimate the technical efficiency of the banks, in the period between the first semester of 2005 and the first semester of 2017. The analysis used the classic models CCR and BCC following the banking intermediation approach.

Findings & Value added: The results, in general, indicate that the level of efficiency of the Portuguese banking sector is high, suggesting that the banks operating in it are efficient in optimizing their resources. It also concludes that the determinants that influence efficiency are the size, the capital structure, the antiquity and the macroeconomic situation of the country.

To the best of our knowledge, this is the first approach to bank efficiency that involves time series data after the Portuguese sovereign debt crisis and, therefore, were not considered in previous studies.

The adversities that arose in the Portuguese banking sector, due to the financial crises that affected the country, and the constant competitive pressure of the sector, have made the efficiency of Portuguese banking institutions an essential factor for their survival. The adversities that arose in the Portuguese banking sector, due to the financial crises that affected the country, and the constant competitive pressure, made the efficiency of institutions an essential factor for their survival.

Anna Moździerz

Cracow University of Economics, Poland

Macroeconomic stability as the condition for Bulgaria to join the euro area

JEL Classification: *E61; E63; F33*

Keywords: *macroeconomic equilibrium; macroeconomic stability monetary union; convergence criteria*

Abstract

Research background: The subject of research is the macroeconomic situation of Bulgaria in the context of the country's preparations for joining the euro area. In 2018, the Bulgarian government approved a plan of preparations covering the period until the end of June 2019, which assumes that the country will join the ERM II mechanism in July 2019, and the euro area on 1 January 2022. The implementation of this optimistic scenario may be difficult because since the 2007 crisis, the European institutions pay more attention to macroeconomic stability and the sustainability of convergence. Bulgaria meets four nominal convergence criteria regarding inflation, long-term interest rate, budget deficit and public debt. The national currency is pegged to the euro under the currency board arrangement.

Purpose of the article: The aim of the article is to identify factors destabilising macroeconomic equilibrium in Bulgaria, which are a potential obstacle to the adoption of the euro by Bulgaria on schedule.

Methods: The research was based on the changes in selected macroeconomic indicators, as well as on the method used by the European Commission to detect macroeconomic imbalances. The observation and analysis covered the 2007-2018 period.

Findings & Value added: The research results indicate that the low level of socio-economic convergence of Bulgaria and macroeconomic imbalances may delay its membership in the monetary union. Therefore, while respecting the country's aspirations to join the euro area, one cannot ignore the risk of another destabilisation of the euro area.

Marta Musiał
University of Szczecin, Poland

Housing issues for young people in Poland

JEL Classification: *D12; D14; R31*

Keywords: *personal finance; housing market; financial decision; credits; young generation*

Abstract

Research background: Housing choices that current generations face are vastly different compared to the previous one in Poland and therefore they cannot rely on parents' experience. This is continuously made more difficult due to changing legal and economic environment, in likes of introduction of "own contribution" to mortgage.

Purpose of the article: The goal of the paper is to assess whether it is getting more difficult for young people to purchase their first real estate and what are the barriers they face. Moreover, it looks at and compares it to the situation of previous generation and other countries.

Methods: The article consists of the synthetic review of the latest research. Those focus on young people's issues on Polish housing market. Moreover, it contains primary research conducted on students from University of Szczecin (n=878).

Findings & Value added: The article highlights some of the most imminent concerns of young people in relation to housing in Poland. It is the ground for discussion about solutions or programs aimed at supporting young people housing situation. It is based both on primary and secondary research, with additional comparison to situation in other countries.

**Taisiia Nakonechna, Roman Katchmar,
Natalia Hryniv, Taras Danylovych**
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Modeling of the retail pharmaceutical companies' customers service level

JEL Classification: *M31; P23*

Keywords: *service elements; customer service level; standards of customers service; customer; pharmaceutical company*

Abstract

Research background: The increased competition is observed in the pharmaceutical market among the retail pharmaceutical companies in the differentiation of the range of medicines, on one hand and in large numbers of similar commercial parameters of the supply of medicine on the other hand. One of the most important tasks of retail pharmaceutical enterprises is to provide the population with high-quality, effective, safe medicines at reasonable prices.

It is necessary for retail pharmaceutical enterprises, to search new ways to attract customers, applying scientifically based logistic approaches to the organization of sales activities and streamlining the customer service process as a key influence factor while choosing a place to buy medicines under such conditions of functioning. The mentioned above actualizes the in-depth study of the process, elements and level of customer service of retail pharmaceutical enterprises and necessitates the implementation of effective mechanisms aimed at improving the level of customer service.

Purpose of the article: Justify the feasibility of providing a high level of customer service to retail pharmaceutical companies in order to preserve and improve public health and ensure competitiveness.

Methods: In the process of research, general scientific and special methods were used: synthesis and system analysis, economic analysis, comparative and indicative methods, groupings, logical analysis, and queuing theory.

Findings & Value added: The article proves the positive economic and social effect of raising the level of customer service in retail pharmaceutical companies, and the well-founded aspects on which the customer service strategy should be based.

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Agglomeration of firms within special economic zones in Poland

JEL Classification: *R3; C21; R12; H25; H32*

Keywords: *special economic zones; location of economic activity; SEZ; firms; agglomeration*

Abstract

Research background: The adoption of special economic zones (SEZ) and other types of privileged areas in numerous countries was seen as a remedy for a variety of socio-economic problems. For instance, at a local scale, the operation of SEZs can lead to the formulation of clusters and positively affect the regions' growth capabilities.

Purpose of the article: Given the limited empirical evidence on the agglomeration of firms within special economic zones, we aim at identifying: (i) areas of SEZ firms' concentration; (ii) sectoral/regional patterns of emerging hubs; (iii) factors affecting successful firm agglomeration within particular zones.

Methods: The study is based on the data obtained from the Ministry of Entrepreneurship and Technology in Poland for years 1995-2015 and geocoded firm-level data. Using SPAG index of spatial agglomeration (Kopczewska et al. 2017), combined with locational data on firms operating in special economic zones, we run an analysis, in which patterns of firms' agglomeration are investigated from the perspective of point data.

Findings & Value added: By comparing the overall value of the SPAG index, mean distance among firms, the overlap factor, the coverage of firms' circles - in time and between regions - we formulate implications for SEZ-led programme in Poland, comment on the effects of amendments introduced to the scheme of SEZs' location during the last two decades, and deliver universal recommendations that can be applied by other countries adopting SEZ-led programmes. An important asset over the existing studies is the utilisation of measures that condition spatial concentration of entities irrespective to the administrative boundaries.

Katarzyna Niewińska
University of Warsaw, Poland

Impact external and internal factors of stock return volatility in banking sector

JEL Classification: *G11; G15; G21*

Keywords: *stock return volatility; banking; implied volatility*

Abstract

Research background: The study has been undertaken to identify the external and internal factors of Stock Return Volatility in the banking sector in Europe on 182 banks in 26 countries.

Purpose of the article: The main aim is to determine the internal and external factors influencing volatility and identify which historical volatilities influence more determinants. In addition, it also analyze in terms of the size of banks.

Methods: The data used is quarterly in the period of 2004–2015. The methods applied are panel data model with random and fixed effects.

Findings & Value added: Firstly, the dependent variables better explain external factors than internal (data specific to the examined bank). Secondly, in most studies, more factors affect long-term volatility than short-term. to determine the internal and external factors influencing volatility and identify which historical volatilities influence more determinants.

Dagmara Nikulin, Sabina Szymczak
Gdansk University of Technology, Poland

Effects of the integration into Global Value Chains on the labour standards in Central and Eastern Europe countries

JEL Classification: *F16; F66; J81*

Keywords: *working conditions; Global Value Chains; wellbeing of workers; employment contact*

Abstract

Research background: In the era of globalization there is a need to address decent work deficits in Global Value Chains (GVCs). The forms of working conditions reveal a broad dispersion of contents. In European context, most desirable is the extent to which non-core labour standards are reflected in worker's well-being. The literature review expose hardly any Europe-focused research assessing the socio-economic impact of global production links and going beyond their pure economic effects assessed in terms of employment, productivity or wages.

Purpose of the article: This paper investigates how involvement in GVCs affects labour standards. In particular, we asses how the integration into GVCs impact the probability of having indefinite type of employment contract (temporary vs. indefinite), which stands for one of the decent work indicator. Moreover, we draw individual, firm-level and country specific characteristics determining the type of employment contract.

Methods: We use linked employer-employee data from the Structure of Earnings Survey merged with industry-level statistics on GVC based on World Input-Output Database - the sample is composed of over 5 million workers from 10 Central and Eastern Europe countries (CEEC) observed in 2014. The involvement into GVC is measured using a novel approach based on the concepts of global import intensity (GII). We employ logistic regression with robust standard errors.

Findings & Value added: Controlling for individual and firm-level characteristics (sex, age, education level, length of service in enterprise, size of the enterprise) we find that greater integration into GVCs decreases the probability of having indefinite type of employment contact. Moreover workers not covered by collective pay agreements exhibit lower chance to have this type of contract. In this way we expand the existing literature by reporting the effects of GVCs on labour standards in CEEC.

Paulina Nowak
Kielce University of Technology, Poland

Enterprise cooperation as an element of regions' innovative potential

JEL Classification: *O18; O31*

Keywords: *innovative activities; enterprise cooperation; Polish regions; regional diversification*

Abstract

Research background: Cooperation is a necessary part of enterprises' innovative activities. By their very nature, innovative undertakings require not only substantial outlays or creative human capital, but also collaboration with other enterprises, scientific institutions, and business environment. Competing enterprises stand greater chances internationally by building innovative potential of their regional environment as well. Therefore, stimulation of ongoing cooperation of regional enterprises, in its various forms, is an important challenge to local authorities.

Purpose of the article: Diagnosis and evaluation of regional differences in levels of cooperation among enterprises engaged in innovative activities. Details of innovative activities published by the National Office for Statistics (GUS) and details of cluster collaboration among enterprises, published by the Polish Agency for Enterprise Development, are used.

Methods: Cluster analysis, which helps to define regions similar in respect of a phenomenon under analysis, is used. Spatial classification of regions was based on Ward's method, a hierarchical approach often employed to group objects. Its application produces a hierarchical tree that groups regions in increasing clusters.

Findings & Value added: Cooperation of innovative enterprises in Poland is not of a satisfactory standard. Special attention is paid to diversification in cooperation levels among enterprises in the particular regions, especially as part of cluster cooperation. Nature of cooperation on innovative activities is an important cognitive part in exploring specific characters of regions and should be utilised as part of regional development management.

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Public participation in rural municipalities

JEL Classification: *H72; O18; O30*

Keywords: *public participation; sustainable development; rural areas*

Abstract

Research background: Sustainable development of rural areas is becoming an increasingly important challenge for local self-governments due to economic, intellectual, social or ethical barriers existing in the areas. Considering that sustainable development is to lead to improvement of the quality of life of residents with non-infringement rural resources such as the natural environment, landscape and cultural heritage we should take in consideration possibility of using public participation in shaping the expenditures of rural municipalities to improve the quality of inhabitants' life.

Purpose of the article: This article aims to analyze changes in the scale and directions of the use of "Sołecki Fund" in municipalities in 2014-2017 as a tool of participation of citizens in sustainable development of rural areas.

Methods: The research used the data of the Local Data Bank of the Central Statistical Office on the structure of expenditure of rural municipalities within the framework of "Sołecki Fund". The study covered all rural communes in Poland in the years 2014-2017. An analysis of the structure of communal expenditures was made in terms of the basic sections of the budget classification.

Findings & Value added: On the basis of the conducted research, it is possible to indicate an increase in the use of "Sołecki Fund" by rural municipalities in Poland. It should be pointed out that in relation to 2014, in 2017, there was an increase in the use of this public participation instrument from 69% to 90% of all rural municipalities. The basic areas of expenditure were public transport, safety and fire protection, culture and protection of national heritage and sports.

**Milana Otrusinová, Marie Paseková,
Bohumila Svitáková**

Tomas Bata University in Zlín, Czech Republic

Introduction of IPSAS and IFRS to the Czech accounting and its influence on the accounting errors

JEL Classification: *M41; H83*

Keywords: *public finance; quality of accounting information; accounting standards, financial statements*

Abstract

Research background: In the current legislative process after Accounting Reform of Public Finance in the Czech Republic, the Czech Republic pursues maximum compliance with the Fourth and Seventh EU directive, so that the new national standards would accept the international rules of IFRS, IPSAS and the European System of Accounts (ESA 95) - European statistical system.

Purpose of the article: The aim of this article is to identify the problems of quality of accounting information when Czech accounting standards are being used in public sector accounting after accounting reform of public finances in the Czech Republic. The partial aim is then to compare the impact of IPSAS and IFRS on the Czech accounting standards and the accounting error rate of private entities and public sector entities.

Methods: We used methods of quantitative research in the following way: the questionnaires were sent out to appropriate organizations and then the statistical methods were used to analyze them. The aim of testing was to assess whether answers to five questions statistically differ between profit and non-profit organizations. Another goal was to map the representation of individual responses (level of approval).

Findings & Value added: It was found that the impact of Czech Accounting Standards as a whole on accounting errors is not statistically significant for business entities and entities in the public sector. In addition, it was proved that, according to respondents to this research, Czech accounting standards after the accounting reform of public finances in the Czech Republic are not considered as the usual cause of errors in accounting, and compliance to them can help avoid errors when preparing financial statements.

Jiří Oulehla, Tomáš Meluzín, Jiří Luňáček
Brno University of Technology, Czech Republic

The influence of non-price factors on the market with new building – case study for Warsaw

JEL Classification: *R21; R31; C23*

Keywords: *New residence building; Granger causality; Determinants; Multiple regression; GDP.*

Abstract

Research background: The real estate market is one of the often common areas. Current procedures, however, directly assess the market equilibrium or focus on predicting further developments concerning rising real estate prices. However, the offer page contains a factor that has not yet been part of the solved models. This factor is the number of building permits. If the demand for new housing is increasing, the number of building permits is a factor that allows for an increase in the supply.

Purpose of the article: The purpose of this article is to identify the factors influencing the number of building permits in the capital city of Warsaw. The influence of macroeconomic, microeconomic and demographic factors is examined.

Methods: This study uses secondary data from the Polish Statistical Office and the Polish National Bank. Other data is taken from EUROSTAT. General scientific methods are Granger causality and multifactor regression.

Findings & Value added: The correlation results brings those results. Statistically, the significant variable is not Consumer Price Index and The Number of Inhabitants. Other variables showed a statistically significant correlation. The variable The Number of Inhabitants shows the negative value of correlation, but it is not statistically significant. Defined hypotheses have the following evaluation:

H1. For growth in the supply of residential housing is a significant factor in GDP. GDP has the most substantial influence. According to the metric used, 1% of GDP means increase in building permits about 26 pieces. Other variables reach a maximum of 0.7%. The second statistically significant variable is population growth. It is only half the strength of GDP and is significant at 5% level alpha. This hypothesis was confirmed, for the variable GDP was identified most robust statistical significance both at the 5% level and at the level of 1% for case of WARSAW. H2. Average wage growth is not a statistically significant variable. The average wage is not a statistically significant variable. Compared to the other but has a powerful influence. Since the most crucial factor of GDP differs by only 0.3%, it is a deci-

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sive factor, which average wage growth also means growth in building permits issued. The average wage also affects the result, but not statistically significant..

**Victor Kwarteng Owusu, Ales Gregar,
Abdul Bashiru Jibril**

Tomas Bata University in Zlin, Czech Republic

The impact of training and development on job performance: a case study in an academic institution

JEL Classification: *M1; M12; M53*

Keywords: *Training; Development; Performance; Academic community, Employees*

Abstract

Research background: Practice of training and development in an organization constitute one of the most vital ways of improving on the skills of an employee. To observe requisite global and professional standards in an organization, proactive and regular training and development programs facilitate the sharpness of employees' abilities, leading to improved employee's performance or progress. Although, the academic community and by extension a training institution should have a proper training and development programs designed to build the capacity of employees'. Studies have suggested that human resource practices such as wider training programs would create a sense of organizational support. However, in the case of academic community there is insufficient training and development programs structured for employees for the purpose of organisational management. By virtue of this the present study seeks to fill in a gap of training and development program deficiencies in an academic community.

Purpose of the article: This paper aims to access the impact of training and development on job performance in an academic institution, and the relative performance of their employees.

Methods: The survey questionnaire was administered to the employees of a public university in Ghana. 85 valid responses were analyzed with nonparametric test specifically multiple linear regression analysis. The technique aided in ascertaining the magnitude of impact of training and development programs (predictive variables)

Findings & Value added: The investigation proved that the kind of training and development programs especially mentoring has a significant impact relative to seminars, workshop, on-the job-training and technology based learning. The implication of this study is that employers and recruiters should adopt proper training programs to correspond with the needs of their employees' job performance. The

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theoretical benefit is to broaden the scope of training and development in human resource management discipline.

Marie Paseková, David Homola
Tomas Bata University in Zlín, Czech Republic

Error occurrence in process of preparation of financial statements under IFRS: some evidence from the Czech Republic

JEL Classification: *M41*

Keywords: *financial statements; IFRS, quality of accounting information; creative accounting; errors and mistakes*

Abstract

Research background: The aim of the paper is to identify main factors influencing the error rate in financial statements prepared under IFRS, mainly impacts of standards themselves or human factor involved in their preparation.

Purpose of the article: The authors are giving a thought to what factors influence quality, mainly reliability, of presented accounting information the most based on results of their questionnaire research. Quality and reporting ability of financial statements depend on diverse factors.

Methods: Research itself, realised on a sample of Czech enterprises which prepare their financial statements under IFRS in a form of a questionnaire, focused on perceiving problems in IFRS application in environment, where Czech Accounting Standards differ from IFRS in many significant areas, and further on its relation with behavioural aspects of human activity which influence the accounting information quality and may result in mistakes or errors appearance in financial statements of the company. The methods of observation and of quantitative analysis, together with the method of synthesis of partial conclusions were used to define and classify the factors which may result in occurrence of mistake or an error in financial statements of the company. The sample of respondents was mainly focused on middle or larger enterprises, which prepare their financial statements under IFRS; enterprises of all legal forms operating in the Czech Republic were represented.

Findings & Value added: The respondents' answers were evaluated and hypotheses tested. The results proved that both IFRS standards themselves and human factor may result in appearance of error or mistakes and that also financial statements, even those prepared under IFRS, are susceptible to reality distortion. The main target of the research is to classify and interpret factors influencing the financial result and susceptibility to fraudulent actions.

Liudmyla Petrenko

Kyiv National Economic University named after Vadym Hetman, Ukraine

Crowdfunding of Polish and Ukrainian innovative projects: different or similar?

JEL Classification: G23; O5

Keywords: *crowdfunding in Eastern Europe; comparative crowdfunding study; Kickstarter crowdfunding platform*

Abstract

Research background: Crowdfunding is a relatively new form of investment support, which has been developing for less than ten years and which, due to its novelty, is a poorly understood phenomenon. Of particular interest is the comparative study of the crowdfunding experience of innovative projects in neighboring countries, such as Ukraine and Poland: both of them are leaders in Eastern Europe in terms of the number of announced projects for crowdfunding on the Kickstarter platform.

Purpose of the article: The purpose of the article was to identify similarities and differences, discover the best practices and present how the modern innovative projects are crowdfunded in two neighboring countries. For this purpose, was summarized selected data characterizing crowdfunding in various types of projects. It was assumed, that it is important not only the number of backers and duration of campaign, but also the industry and stated crowdfunding goal. In addition, this research is the attempt of pointing the national background role in the crowdfunding of innovative projects. Results will contribute to disseminate the best crowdfunding practices in region.

Methods: We use unique data from Kickstarter crowdfunding platform of 425 Ukrainian and 400 Polish projects posted prior to December 2018. We used statistical and econometric analyzes, based on the results of which generalizations and conclusions were made.

Findings & Value added: Based on the study it can be stated that crowdfunding success varies in countries considerably, depending on: 1) stated goal (\$); 2) industry; 3) number of backers; 4) duration of campaign. The results of the analysis showed that Ukraine is slightly overtaking Poland by the number of announced projects, but Polish projects are more successful and more often reach established investment goals.

Martin Petříček

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Price elasticity of demand for accommodation services between 2005 and 2018

JEL Classification: *D12; M21; C55*

Keywords: *price elasticity; demand; price optimization; consumer behavior*

Abstract

Research background: The paper focuses on the issue of measuring price elasticity of demand. Price elasticity is an important element, for example, in terms of understanding consumer behavior - whether for any purpose. One of these purposes for which this contribution was made is price optimization of the company. Research has available a significant data sample on a daily basis in the segment of accommodation services (price and quantity) since 2005 in the Czech Republic.

Purpose of the article: The aim of the paper is to show current approaches to measuring price elasticity as well as to evaluate the development of consumer behavior (measured by price elasticity) in the monitored segment since 2005 to the first quarter of 2018.

Methods: For the calculation of price elasticity of demand, log-linear regression analysis is used as the basic method. Due to the high number of input data, this approach can be applied. The data is available on a daily basis and therefore the resulting elasticity in the article is compared to several levels. First, the outputs are compared on the basis of different price elasticities in different periods (outpourings, weekdays, summer months, etc). Furthermore, the outputs are compared over time.

Findings & Value added: One of the basic outputs in the research is that price elasticity is relatively stable in the monitored segment over time but has changed significantly over the long-term period, especially in terms of decrease of differences in elasticity between different seasons. The output of the contribution can help to compare elasticity in different European destinations, understanding the current consumer behavior and, in particular, to make price optimization of the company.

Quyen Phu Thi Phan

Tomas Bata University in Zlín, Czech Republic; University of Da nang, University
of Economics, Vietnam

Michal Pilik, Hung Vo Viet

Tomas Bata University in Zlín, Czech Republic

Role of trust on brand engagement and electronic word of mouth in Facebook commerce

JEL Classification: *M31*

Keywords: *trust; brand engagement; electronic word of mouth; Facebook commerce*

Abstract

Research background: Trust is a crucial factor in online shopping environment, but the effect of customer's trust on their intention to depend and engage more with social media platforms need to explore in future research, especially in Facebook commerce environment.

Purpose of the article: This study investigates the relationship between consumers' trust in comments of products/ services on Facebook platform and brand engagement, as well as eWOM intention.

Methods: A total of 248 Facebook users who have experience on Facebook shopping were used. By using PLS-graph 3.0, structural equation modeling was used.

Findings & Value added: Results demonstrate that trust on comments posted on Facebook increases consumers' brand engagement and eWOM intention. The finding is very interesting when exploring about the direct effect of trust on brand engagement, which have received less attention in Facebook commerce environment. Additionally, the relationship between trust and eWOM intention adds more knowledge about consumers' belief toward comments advertised on Facebook. In addition, the study's finding gives ideas about how firms can optimize consumers' trust through managing comments posted on Facebook, which in turn have positive influence on brand engagement and positive word of mouth.

Aleksandra Pieloch-Babiarz

University of Lodz, Poland

Factors determining the diverse dividend policy: evidence from the Warsaw Stock Exchange

JEL Classification: *G10; G30; G35*

Keywords: *diverse dividend policy; determinants of payout policy; capital market; the Warsaw Stock Exchange*

Abstract

Research background: The dividend policy depends on many determinants. Although these factors are well-described in the literature, there is still a research gap concerning the lack of a comprehensive impact model of various determinants on implementing different dividend policy. Considering the diverse dividend policy of companies, I am particularly interested in the model dividend policy, such as: constant dividend per share, constant payout ratio, extreme dividend policy, residual dividend policy and hybrid dividend policy.

Purpose of the article: The aim of this paper is to conduct the comparative analysis of companies implementing the diverse dividend policy. The possibility to achieve this objective is conditioned by the empirical verification of research hypothesis stating that the companies conducting various dividend policies differ significantly in terms of many factors, such as: financial standing, market value, ownership structure, company size, company age and board characteristics.

Methods: The empirical research is conducted among the companies listed on the main market of the Warsaw Stock Exchange in years 2001-2016. The data for analysis are collected from database *Notoria Service*, *Stock Market Yearbooks* and different financial portals. The calculations are carried out using the methodology of synthetic indicator (TOPSIS method), descriptive statistics and one-way analysis of variance with *post-hoc* test.

Findings & Value added: The crucial conclusion from the analysis is that companies implementing the diverse dividend policy differ significantly in terms of many characteristics. The value added of this paper is a new holistic approach to the comparative analysis of companies conducting different dividend policies. The research seems to be valuable due to the lack of academic studies on the impact of various factors on implementing the diverse dividend policy.

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Application of multivariate comparative analysis for the evaluation of special economic zones in Poland

JEL Classification: *R11; R58*

Keywords: *entrepreneurship; management; multidimensional comparative analysis; special economic zones*

Abstract

Research background: The considerations defined in the article concern the issues of the functioning of special economic zones in Poland, recognized through the prism of the most important indicators concerning the economic activity of the zones, and also showing the potential of these zones – by recognizing their advantages or their distance from other zones, from the point of view of criteria of functioning of privileged zones together forming a group.

Purpose of the article: The aim of this article is to present one of the methods of multidimensional comparative analysis, to recognize the diversification of functioning of fourteen special economic zones in Poland, in a time-space system.

Methods: The test method used in the examination, was the analysis of secondary data, so-called desk-research. In this case, the main source of numerical data were reports including operational and financial results, concerning the effects of functioning of special economic zones. In order to assert the comparability of results from particular years, the examination procedure covered the years 2009-2017. A model of development determination method was used.

Findings & Value added: Based on the performed examination, a positioning of described privileged zones in each examination period was performed. Then, further research has been done, in order to designate the factors favoring and limiting the activities favoring the creation of entrepreneurship of economic entities functioning in Polish economic zones.

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ICAAP and the risk assessment models

JEL Classification: *G15; G21; G23*

Keywords: *ICAAP; Financial Risk; Basel Agreement; SEA*

Abstract

Research background: The regulation of the financial system is a challenge for national and international leaders with the aim of avoiding crises that cause financial stability at the global level. Financial policy management, pass through the implementation of integrated systems and blanket of banking sector. In practice, regulation and supervision are interlinked, so people evaluated together along this point. The Bank's Internal Capital Adequacy Assessment Process (ICAAP) is an internal assessment based on the risk of capital and resource requirements, a challenge for ICAAP and the underlying processes.

Purpose of the article: This article aims to present an approach to credit control mechanisms under the Basel III Agreement.

Methods: The methodology will be qualitative in a first part and quantitative (in the case study) in the second part.

Findings & Value added: Nowadays it is necessary to make an effort as the work of regulation has become increasingly complex and supervision increasingly fundamental as a result of the sophistication of financial markets and complex calculations of ratios to control the risks incurred by Financial Institutions.

The Credit Risk Assessment Model aims to provide a set of checks that can be carried out in order to control the potential risks to be incurred.

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Relationships between technological innovation and labour market – results of literature studies

JEL Classification: *J01; J50; J64; M10;M11;M51*

Keywords: *labour market; technological innovations; mutual relationships*

Abstract

Research background: Labour is a primary factor of production. The economic growth cannot be explained only by the increasing application of factors of production. Specifically, per capita GDP cannot grow in the long run unless it is assumed that productivity also grows, which Solow refers to as “technical progress”. The first association with technical progress is that technological innovations exert impact on the demand for work and the nature of tasks performed by employees. However, there are more different relationships between technological innovations and labour market.

Purpose of the article: The purpose of the article is to present the relationships between the implementation of technological innovations and changes on the labour market through answering the following research questions:

- 1) What is the dominating nature of the “technological innovation - labour market” relationships presented in the subject literature?
- 2) Has this problem been covered in the publications from the recent ten years?
- 3) Has this problem been presented in regard to Poland?

Methods: We used literature studies related to economics and management sciences.

Findings & Value added: Publications from the recent ten years cover problems of the analysed relationship, however, not with reference to the specificity of Poland. These publications, more often than the previously published literature, focus on a positive approach to these relationships. The article presents not only the results of literature studies but also directions for further empirical research and an original typology of relationships between technological innovations and labour market which can be used in further studies.

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Knowledge flows in contemporary economies – expectations and the EU results

JEL Classification: *I2; O3*

Keywords: *Knowledge flows; international transfer of knowledge; European Union, open science, international scientific cooperation*

Abstract

Research background: Access to knowledge and the ability to absorb it are increasingly becoming the decisive factor in the level of development and the pace of economic growth. Knowledge transfer is a complex process that can have both an internal dimension (between entities within a given country) and an international one (between domestic and foreign entities). In this context, knowledge flows in the area of science and innovation deserve special attention.

Purpose of the article: The main purpose of the article is to describe selected aspects of knowledge flows in the economy and to characterize the EU position especially considering the global science context. What is the role of knowledge flows in the economy? What are the channels of knowledge flow? To what extent does the EU participate in the international knowledge flows? What are the EU expectations in this area? This article endeavours to answer the above questions.

Methods: The research method here adopted involves a literature survey, a study of European documents and a critical analysis thereof. The main line of investigation is a comparative analysis, which refers to the international statistical databases.

Findings & Value added: The article systematizes information on knowledge flows in economy and supplements it with a comparative analysis, which allows for better understanding of the international position of the European Union in this field. The conclusion states that despite lagging behind the United States, European science is becoming increasingly more open-access oriented and the EU is still among the leaders of international scientific cooperation.

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Optimization platform for the formation of rolling stock fleet of a motor transport enterprise

JEL Classification: *L91; C01*

Keywords: *transport industry; motor transport enterprises; rolling stock; production program*

Abstract

Research background: At the present stage of Ukraine's transport industry development, one of the main problems is the satisfactory providing of enterprises by the fixed assets. These enterprises need as upgrading their rolling stock fleet as a technical re-equipment of the production and technical base for maintenance and repair of transport. The countries of the European Community are tightening the requirements for the technical and ecological condition of motor vehicles, therefore, without taking measures to update it, the state may lose its position in the international road transport market. The need to upgrade the rolling stock will significantly increase both the quality of transport services and significantly reduce the cost of transportation. Moreover, there is a problem of preliminary analytical research on the justification for the need to upgrade rolling stock and the choice of vehicle type depending on economic and production factors.

Purpose of the article: The purpose of the article is to build an optimization platform for the formation of rolling stock fleet of a motor transport enterprise.

Methods: During the study empirical methods (to study secondary information on trends in the transport industry), the method of economic and mathematical analysis (to study the impact of economic and production factors on the cost of transportation) were used.

Findings & Value added: Using the economic and mathematical model of a motor transport enterprise functioning, a rolling stock operation program has been developed that based on a predetermined scope of work for an enterprise's fleet. This made it possible to investigate the influence of economic and production factors on the cost of transportation. The article also provides a maintenance plan and a production program for maintenance and repair of the company's vehicles.

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Culture of organization in conditions of changes as a basis for efficient transformations

JEL Classification: M14; L95; O47

Keywords: *enterprise; corporate culture; changes; transformation; enterprise efficiency*

Research background: The relevance of the research of corporate culture in the conditions of changes is substantiated as well as are defined its elements which are important for effective transformations. The influence of corporate culture on the performance of the company and its elements are identified.

Purpose of the article: The purpose of the article is to identify the elements of organizational culture at the enterprise level, which influence the effectiveness of its activities in terms of changes and generalization of its components, which determine its ability to transform the existing state in accordance with the established world experience and practice.

Methods: Hierarchical levels of corporate culture are highlighted to identify elements of corporate culture and "hidden" factors that allow establishing relationships with the outside world and promoting the productive work. The McKinsey 7S model was used to describe the enterprise in order to assess the state of the proposed levels of formation and change its corporate culture. Using the elements of the McKinsey 7S model, questionnaires were developed as well as surveys of staff of gas transport companies, which are now forced to respond both to changes in the energy market of Ukraine and to pan-European gas market trends. The use of the fuzzy logic method allows investigating the influence of corporate culture elements on the results of the enterprises and identifying those elements that are important for the implementation of changes in the enterprise and, without which it is impossible to achieve effective transformations.

Findings & Value added: Taking into account the results of the corporate culture element assessment at the investigated companies, the directions of corporate culture development for enterprises that are in a state of changes are highlighted, namely: application of different management styles; support of employees in making innovative decisions; development of cooperation and elimination of conflicts between workers; formation of general corporate values; creating trust between employees and top managers; promoting the development of young workers; application of the mechanisms of education and maintenance of a high level of morality and culture of workers.

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European central banks' transparency and effectiveness. Are they similar?

JEL Classification: *E52; E58*

Keywords: *central bank transparency; forward-looking communication; Hodrick- Prescott filter; coefficient of similarity*

Abstract

Research background: Monetary policy transparency is a fact. The previous studies covering this issue suggest that the dependence of the degree of transparency and monetary policy effectiveness exists. In this examination we tackle this issue for the most recent sample with the application of novel transparency measure which is designed to cover forward-looking policy approach.

Purpose of the article: We aim at evaluating forward-looking transparency of the European central banks and juxtapose it with their effectiveness in achieving monetary policy goals: price stability and output stabilization.

Methods: We applied a novel, index-based transparency measure to assess central banks' transparency. An index of forward-looking transparency is developed on the basis of signalling intentions by the central banks. We also estimate their effectiveness defined in terms of output and inflation gap minimization. The methods used are based on data and statistical analysis. To extract the cyclical component of time series, the Hodrick-Prescott filter is employed. The comparison of the behaviour of individual central banks is carried out for the variables measuring transparency as well as output and inflation gaps. On this basis, the similarity of the performance of individual central banks is assessed using various mathematical measures of calculating the distance between objects, including our own measure.

Findings & Value added: Our results suggest the existence of dissimilarities in our sample. However, the dependence of transparency and monetary policy effectiveness is found. Novelty of the examination is related to our methodology: transparency and distance measures applied and the most recent time span covered.

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Detecting the linkages between clusters and circular economy

JEL Classification: *Q55; R11*

Keywords: *clusters; circular economy; resource efficiency; knowledge transfer; competitiveness*

Abstract

Research background: Clusters are more often viewed not only as one of the means for SME's to achieve competitive advantage through clustering but also as link that enables to focus on resource efficiency challenges and setting up circular value chains. Climate change is at the top of the agenda recently which makes resource efficiency to come under discussion.

Purpose of the article: This paper aims at analyzing circular economy and looking for possibilities to connect business and science so that innovative technologies and products are developed to increase SME resource efficiency through clusters and cluster organizations.

Methods: Bibliometric literature analysis technique was chosen to qualify circular economy, resource efficiency and clusters, case analysis was used to detect the evidence that clusters can be enablers of resource efficiency and circular economy between SMEs.

Findings & Value added: The findings suggest that the principles of circular economy can be detected between companies within a cluster and resource efficient action arise from close cooperation, knowledge transfer, innovative solutions and competitive advantages which are imparted by the cluster. This study needs to be continued to reveal the results that can be achieved through close cooperation and other advantages that companies can obtain from belonging to a cluster. These benefits can be used in further development of circular value chains within a cluster.

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Labor economic policy in Western Europe and the USA: evolution of approaches

JEL Classification: *B4; J480; B16*

Keywords: *Labor Policy; Economic Methodology; Philosophy of Labor*

Abstract

Purpose of the article: In our research, we consider philosophical problems of labor in the wide context of labor economic policy in Western Europe and the USA. We aim to examine the evolution of approaches to this policy and to elaborate some basic principles for such policy.

Research background: An adequate labor policy cannot be elaborated without considering the crucial factors of labor conditions in different countries, global tendencies of economy and culture, the influence of political ideology, as without understanding the basic principles of labor market economic policy. To trace the main ideas, problems, and trends of modern labor economic policy, we used contemporary research results, published between 2013 and 2018, about 50 sources at all. The most important for our research were Bozkaya, Kerr, 2014; Breman, Linden, 2014; Dobrescu, 2014; May et al, 2014; Bertola, Lo Prete, 2015; Rakauskiene, Krinickiene, 2015; Doussard, 2016; Crotty, 2017; Franzen, 2017; Senses, 2017; Ahir et al, 2018; Thompson, 2018.

Methods: Within the philosophical analysis of labor economic policy, we use a systemic approach to consider the main problems and tendencies of labor economic policy, and the comparative method to compare labor economic policies in different countries and regions. Besides, we believe that the philosophical approach to the human problem can also be applied in labor economics.

Findings & Value added: We have found that, despite a certain historical and political inertia, there is an evolution in labor economic policy from binarity to multidimensionality, from ideology to understanding, from economy and policy – to philosophy. We also believe that the future labor policy should be guided by the interests of the least protected segments of the population. Taking these trends and tendencies into account is indispensable for elaborating an adequate and reasonable labor policy.

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The interconnectedness of money, credit and house prices - the wavelet analysis

JEL Classification: *C22; E32; E44; E5*

Keywords: *money and house prices; credit and house prices; wavelets; historical co-movements; quantitative easing; asset price booms*

Abstract

Research background: Housing related recessions associated with the global financial crisis have awakened the renewed interest in the linkages between housing and the macroeconomic variables. In particular, the central banks' unconventional measures have led economists to question whether global liquidity matters for housing and other asset prices and whether it sows the seeds for the subprime crisis.

Purpose of the article: The goal of the article is to provide new insights into the link between money, credit and house prices for the selected industrialized countries since the 1970s through the lens of the continuous wavelet analysis.

Methods: The main employed method is the Continuous Wavelet Transform.

Findings & Value added: The novelty is the study of the link between money growth, credit growth and house prices with the use of wavelets. Wavelets showed significant but time-varying linkages between these two variables and especially around booming episodes, which delivers many interesting interpretations in the fields of macroeconomics and monetary policy.

Acknowledgments

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Impact of the financialization on activity of non-financial enterprises in Poland

JEL Classification: *G32; G01; F65; G12*

Keywords: *financialization; company; financial report analysis*

Abstract

Research background: Financialization is connected with the phenomenon of financial sphere domination in relation to real sphere. With regard to non-financial companies, it means the increase of importance of financial motives in the decision-making processes of them. These changes are a result of the transformation of economic incentives and developmental patterns in the economy and in business activity that are focused on fast profits. Shareholders (owners) expect through the stock market continuous and dynamic increases of companies' profits. Enterprises try to meet the expectations of shareholders. They use financial leverage and financial instruments to generate profit and at the same time they reduce operating and investment activities.

Purpose of the article: The purpose of the publication is to examine if the financialization affects activity of non-financial companies in Poland. Furthermore it is researched if financialization concerns also particular types of branches as well companies of different size equally.

Methods: The research is based on the method of financial reports analysis of non-financial companies, published by the Central Statistical Office for the years 2010-2017. These reports contain financial data differentiate for branch type and size (number of employees). The indicators identifying financialization and determining their impact on the ROE ratio as a measure of shareholder value were used for this purpose.

Findings & Value added: The originality of the article is the analysis of financial motives in activity of non-financial companies according to branch type and size. Taking into account the diversity of operational activity as well as the possibilities of access to financial instruments of particular types of companies, this should be reflected in the level of businesses activity financialization in Poland.

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Technology transfer and its influence on technological innovations

JEL Classification: *O30 ; O32 ; C00 ; M2; L1*

Keywords: *Technology transfer; technological innovation; innovativeness*

Abstract

Research background: Innovation has become a key source of firms competitive advantage. New technologies effect directly enterprises activity and have positive influence on firms innovativeness level. Firms can explore in many ways their technological assets for innovation. One of them is technology transfer, that offers already checked and working technology. Technology transfer brings new technology to the company. The paper discusses the relationship between technology transfer and technological innovation implemented by firms.

Purpose of the article: The aim of the article is to determine the relationship between technology transfer and technological innovation in surveyed enterprises, what has been investigated empirically. The specific objective of an article relate to examine which specific dimensions of technology transfer influence positively firm technology innovativeness and which is the most important channels of technology transfer in firm's technological innovations and which one has no influence on firm's technological innovations.

Methods: The study is based on a survey on firms (n=150) located in Poland. The research model defining the relationship between technology transfer and technological innovation in the enterprises has been developed. The survey uses the method of soft modelling.

Findings & Value added: The surveys has determined the positive relationship between technology transfer and technological innovations of research sample. A strong direct effect on surveyed firm's technological innovations have different channels of technology transfer. This findings suggest that measurement of technology transfer and its specific channels should be developed further as it is important in firm competitiveness and innovativeness level.

Acknowledgments

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Knowledge in economic terms – the importance of information in a modern enterprise

JEL Classification: *D83; D91; H75*

Keywords: *knowledge; information; municipal sector*

Abstract

Research background: Knowledge is a useful information about a period shorter usefulness than the wisdom, containing information that is longer useful (B. Lloyd, *Knowledge management: what has wisdom got to do with it?* In: *Knowledge Management: Social, Cultural and Theoretical Perspectives*, R. Rikowski (Ed.), Oxford 2007, p. 7). Knowledge contains reliable information about reality and the ability to use it. The information is a set of communication messages, as a content of the individual's beliefs, views or ideas, scientific laws and theories, but also art or subjective views. Information has always been the material and form of human experience. It is necessary for making decisions.

Purpose of the article: The aim of the article is: (1) to define key concepts included in the elaboration, (2) to present the role of information in a contemporary enterprise on the example of municipal economy entities in correlation with the information needs of stakeholders in this sector.

Methods: In the study, there were the following research methods and techniques used: methods of induction and deduction, analysis and synthesis, critical analysis of national and foreign literature on the subject, method of comparative analysis, and questionnaire method.

Findings & Value added: Identification of stakeholders of municipal economy entities and the information policy of these entities along with an indication of the key tools of this policy. Presentation of the results of research on the information needs of stakeholders from the municipal sector in the light of public decision-making.

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Relationship between executive compensation and comprehensive income: evidence from Polish listed companies

JEL Classification: *G21; G34; M41; M48*

Keywords: *executive compensation; comprehensive income; profitability ratios; firm performance; corporate governance*

Abstract

Research background: Economics literature presents the agency problem which can be lessened through executive compensation, especially when it is connected with company profits. This relationship has been repeatedly analysed in corporate governance literature, which showed both a positive and negative correlation between these categories. In this case another approach with the comprehensive income is presented, which (in contrast to net income) is generally beyond the control of managers and hinders active earnings management.

Purpose of the article: This paper presents the evaluation of three stages of relationship between executive compensation and profitability ratios (RoS, RoA, RoE), which are based on the comprehensive income and net income. The main research hypothesis states that in the economic practice it can be assumed that there is a stronger positive correlation between the executive compensation and comprehensive income than the net income.

Methods: The research comprised companies listed on the WSE from the industry sector (the period from 2009 to 2017). The first part contains the results of correlations between profitability ratios and the executive compensation (conducted by means of Pearson's correlation coefficient). The second part presents the results of three regression models in two versions – influence of RoS, RoA and RoE based on the comprehensive income and net income on the executive compensation of companies.

Findings & Value added: The analysed companies were characterized by a diversity correlation between the executive compensation and profitability ratios calculated with the net profit and comprehensive income. Nevertheless, it must be stressed that the results of the estimation show, in this case, a slightly bigger role of the comprehensive income than net profit. One can emphasize a certain advantage of the comprehensive income over the net profit, which can inhibit the effects of managers' intentional influence on the value of the reported earnings.

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Level of public finances decentralization in European Union countries

JEL Classification: *H71; E62; H50*

Keywords: *decentralization; public finances; public expenditure; European Union; fiscal decentralization*

Abstract

Research background: Despite of the universality of the implementation in democratic countries the principle of decentralization resulting from the belief that it is an instrument to improve the efficiency of public funds management, both the scope of public services and the level of decentralization in individual countries are not identical.

Purpose of the article: Comparison the scope of fiscal decentralization in the countries of the European Union; identification the features of countries in which the average level of decentralization from the years 2013-2016 is similar.

Methods: Cluster analysis method: hierarchical agglomeration method using full binding and Euclidean distance; measure of central tendency - arithmetic mean; data was obtained from Eurostat.

Findings & Value added: It was found that in the European Union countries the level of the decentralization index is diversified. Its average value over the period considered (2013-2016) ranged from 0.55% (Malta) to 35.13% (Denmark). The research method used initially (cluster analysis) did not allow achieving the goal: the distances between bonds did not differ significantly, groups of objects could not be separated and grouped into clusters, therefore the dendrograms were not unambiguous. The creation of groups was possible thanks to the use of the second research method - the central tendency. After assuming that the distances between groups must be at least 1 percentage point, 4 groups of countries were created: low, medium, high and the highest degree of decentralization, with group II being the most numerous, with 17 countries with decentralization levels within the borders 6-12%. This group includes all federal states - EU members and most of the countries that joined the EU in 2004 or later. One of the exceptions is Poland - assigned to group III.

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Current figures and perspectives of Latvian medical devices industry

JEL Classification: *III; L69*

Keywords: *medical devices; medical devices industry, net turnover*

Abstract

Research background: Due to ageing of the population in developed countries and increase of the demand for the healthcare worldwide, medical devices (MD) industry becomes one of the fast growing businesses, experienced growth more than 4%. Medical device industry is a good choice for countries that are not rich in natural resources, but able to educate high-quality professionals. The need in human capital is not high as well – 95% of European enterprises in MD field are small and medium enterprises. From the other hand, MD industry is one most regulated, therefore special attention have to be paid while developing innovation strategy in MD sector.

Purpose of the article: The aim of the paper is to provide a first insight into MD sector in Latvia to evaluate present situation and outline some perspectives for future development.

Methods: The data for survey were selected from the public database of the Registry of Enterprises of Latvia and Medical Devices Catalogue, provided by State Agency of Medicines of the Republic of Latvia. Author analysed number of enterprises in the sector, its net turnover and profit for the period from 1996 to 2017.

Findings & Value added: Totally, 779 Latvian enterprises in the field of medicine and pharmacy were analysed. Out of this, 142 enterprises were registered in medical equipment, instruments and devices sector. The total turnover of the whole sector in since 2013 up to 2017 was at the level of ~ 243.6 mil. EUR with the net profit ~10%. Generally, development of MD industry in Latvia followed world tendency with steady growth with a drop in 2008 due to financial recession.

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Impact of clusters on economic security

JEL Classification: *C38; F52; K22*

Keywords: *clusters; economic security; impact*

Abstract

Research background: Most studies and their authors focus on cluster formation. However, they are not intended to show how clusters affect economic security, where major threats occur. Lithuania has a lack of a unified and reasoned opinion about cluster impact on economic security, price fluctuations of raw materials, materials and energy resources, a strong competitive environment with many strong competitors and a complex national economy.

Purpose of the article: to identify the impact of cluster formation on economic security.

Methods: systematic, logical and comparative analysis and synthesis of scientific literature, graphical methods and their generalization, method of statistical data analysis.

Findings & Value added: Due to the slowdown in economic growth, countries are losing competitiveness and failing to meet the needs of a growing society. Although the European Union is considered to be one of the strongest economies in the world, but due to declining resources, their productivity is not fully exploited as a source of wealth, competitiveness and renewal. Assessing the impact of clusters on economic security is a complex multilevel process that must include both quantitative and qualitative impact factors. Economic security is assessed on the basis of certain criteria - performance indicators, but for economic security not the indicators are most important, but its marginal values that exceed threats to economic security. Research has shown that, apart from setting limit values, it is perhaps more important to identify threats to the economy that can be created by clusters, which can both stimulate the innovation activities of their affiliates and increase

their competitiveness, but on the other hand due to the limited technical level of companies, labour shortages reduce the potential of created clusters.

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An analysis of stock exchange performances and prospect of tourism industry in Sri Lanka: with special reference to major listed companies in hotels and travel sector

JEL Classification: *M10*

Keywords: *Colombo Stock Exchange; Hotels and Travel Sector; Equity financing; Sector performance*

Abstract

Research background: Businesses often need external infusion of investment to maintain their operations for future growth and expansions. Equity financing is one of the methods of raising the required capital by selling company's stock to the prospective investors. In return for the investment, the shareholders receive dividends, capital gains and ownership of the companies. The Colombo Stock Exchange in Sri Lanka is one of the recognized exchanges in South Asia, providing a fully automated trading platform to trade different securities of the listed companies to finance their required capital. At the end of a Civil war in 2009, which has lasted over three decades in Sri Lanka, Colombo Stock Exchange (CSE) has started to peak and became one of the most promising and best performing stock markets in Asia.

Purpose of the article: The major objective of this research paper is to analyze a period of three year stock exchange performances with reference to the hotels and travel sector in CSE and examine whether there is a potential growth in equity investments in the respective sector.

Methods: This paper analyzes the stock exchange trading performances of the selected listed companies in the hotels and travel sector in the CSE. The performance analysis is made by gathering the secondary data furnished by of the CSE from 2016 to 2018 which represent 60% from the study population. The company's individual trading performance is analyzed based on the price earning ratio, market price, traded volume and market trend of the company. Similarly,

hotels and travel sector performance are also analyzed to identify the market growth and potentials to absorb the investments to the tourism industry.

Findings & Value added: This paper highlights some key findings of the study. It recognized that the individual performances are at the negative growth in general except a positive growth in few companies. The performance of hotel and travel sector has displayed a negative growth even though the stock exchange is performing well after the civil war. Therefore, the listed companies in travel and tourism sector is yet to be further opened for the potential investments.

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Evaluation of environmental, social and governance equity indices in terms of risk and return

JEL Classification: *Q56; G17; C15*

Keywords: *ESG equity indices; risk; return; bootstrap*

Abstract

Research background: In 1952, two authors published ultimate papers for the financial industry. The first was H. Markowitz who identified risk as related to varying financial outcomes and adopted the standard deviation of the residual assets as a tool for the measurement of risk. The second was A. Roy (1952) who introduced a downside risk measurement principle.

Purpose of the article: The aim of the article is an in-depth comparison of existing investable equity Environmental, Social and Governance (ESG) indices from the viewpoint of the methodology of their construction and to give an empirical view of the ex-post estimation of expected risk and return and other characteristics (e.g. Sharpe ratio, Sortino ration, Drown-down) of ESG equity indices.

Methods: Qualitative methods of comparison in the methodology of the construction and structure of ESG indices are used; in particular suitable statistical methods (mainly robust statistical methods) and a computation-intensive method (bootstrap) for estimating selected characteristics have been used and compared to one another.

Findings & value added: The results show significant differences between ESG equity indices. These differences are the result of the different methodology for the classification of ESG indicators used by individual index providers. This is reflected in the representation of individual countries in each ESG index, by the different representation of individual economic sectors and, last but not least, by the number of companies covered by the index. The bootstrap method with a downside risk metric can evaluate risk in a more appropriate way than traditional metrics.

Urszula Słupska

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The importance of knowledge in building relational competences in virtual organizations

JEL Classification: D21; D22; D80 ; J24; L14 ; L20; L22

Keywords: *virtual organization; knowledge; cooperation, relational competences*

Abstract

Research background: In the current management conditions, the relevant knowledge is seen as a key source of competitive advantage. The competitive advantage of the company is now based not only on its internal resources, but also it is shaped by the results of cooperation with environment. Virtual organizations (VO), seen as a specific form of organizing cooperation among independent companies, are knowledge-based organizations. Internal knowledge in VO is building during the development of the company. External knowledge is created on the basis of maintained relationships with the environment and built relational competencies.

Purpose of the article: The purpose is to attempt to identify the impact of knowledge on the process of creating of VO and building their relational competences.

Methods: The study included companies operating in Poland. In the study, the method of data collection applied was a personal interview. The research tool was a personal interview questionnaire. The questions referring to the importance of knowledge in VO were so designed as to reflect the nature of VO and behaviours that are characteristic of VO. The study was conducted in 2018.

Findings & Value added: A VO transforms knowledge into value-added processes in the market space. Without the right resources of knowledge and constant learning, VO could not exist. In addition, having knowledge and experience is the most favorable factor for creating VO, and their lack the most limiting factor. The results of the study show also that acquiring new knowledge through learning between partners is one of the leading motivations for cooperation within VO. In addition to financial benefits, the most important benefit of cooperation in a VO is the acquisition of new knowledge, exchange of experience and development of human resources. Increasing the resources of knowledge and relational competences leads to improvement of the competitive position.

Agnieszka Smalec
University of Szczecin, Poland

Partnership and promotion of traditional and regional products as an opportunity for the development of the region

JEL Classification: *M3; Q13; R11; R58; H76*

Keywords: *partnership; communication; promotion; traditional and regional products; region; sustainable development*

Abstract

Research background: In the world, you can find many products whose quality and special features are based on the region of origin or traditional methods of production. Many of them have become showcases of these regions. The interest in regional and traditional products is growing year by year. This is mainly due to consumer needs for better product quality and disappointment with the deteriorating quality of mass-produced food. A regional or traditional product becomes an opportunity for the development of communes, especially rural ones, affecting sustainable development. Therefore, the cooperation of many entities is important as well as their appropriate promotion, taking into account current trends. The partnership in a region, which is a collaboration between the self-government units; between the self-governments and entities of regional market and between enterprises, should be treated as a kind of a development determinant.

Purpose of the article: The main purpose of the article is to point to the important role of communication and cooperation for the development of traditional and regional products on selected examples. The article is – intended by the author – an inspiration to discuss the presented issues..

Methods: The article uses the method of documentary research, including the analysis of the subject literature, as well as comparative analysis, case study and the method of observation.

Findings & Value added: In the article, the author points out good cooperation practices and new forms of promotion of traditional and regional products. These products are not made on a massive scale, which is why the partnership is so important. On the other hand, currently, the buyer does not just want to watch, admire, but wants to be active, experiment and experience. Appropriate forms of promotion of these products are therefore needed.

Halina Sobocka-Szczapa
University of Social Sciences, Poland

Acquiring knowledge workers in organizations

JEL Classification: *L1; Market Structure; Firm Strategy; and Market Performance; A1; General Economics*

Keywords: *labor market; ways of acquiring employees; knowledge workers; knowledge management*

Abstract

Research background: In modern enterprises, the basic meaning - in connection with the depletion of other capital resources, and especially natural resources - is the knowledge that determines the value of human capital used in organizations. Very often, therefore, we are currently meeting the term economy based on knowledge, which means the ability of the economy to absorb and simultaneously generate processes related to shaping the competencies of human resources. It is extremely important to verify the relationship between the organization and the labor market as a source of knowledge workers acquisition. Knowledge is both a product and a factor increasing the company's competitiveness, however, it requires a continuous learning process from both the individual and the company, which should contribute to shaping the knowledge processing skills and its effective use. The importance of knowledge management in contemporary organizations is the result of the appearance of people with such a unique level of knowledge that they usually decide about the success of the organization's activities. They are known as knowledge workers. This term applies to employees who have not only formally confirmed education, mostly higher education, but also characterized by the ability to quickly solve problems and technical competences.

Purpose of the article: Acquiring knowledge workers is now a must for all organizations, and their management - a challenge, because these employees are aware that for the organization they constitute valuable human capital, characterized by a high degree of individualization and uniqueness, which is important especially in the conditions of lack of continuity and constantly progressing changes socio-economic, in which the role of knowledge increases. The main goal of the study is to present the issues of knowledge management and its connections with the recruitment process.

Methods: The method used in the study is a study review of the literature and statistical analysis of databases.

Findings & Value added: The situation on the labor market affects the possibility of acquiring knowledge workers by organizations. The added value of the analysis

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is the indication of the relationship between the situation on the labor market and the availability of knowledge workers for companies.

Jolanta Solnyskiniene

Vilnius Gediminas Technical University, Lithuania

Factors affecting social entrepreneurship

JEL Classification: *L31; L26; L38; L39; O44,*

Keywords: *Social Entrepreneurship; Determinants of Social Entrepreneurship; Social Innovations; Social Value; Social Business*

Abstract

Research background: An entrepreneurship is the main mechanism that creates value. The growth of social entrepreneurship is complicated by the combination of economic and social value creation that is fundamental distinguishing factor between social entrepreneurship and commercial entrepreneurship. There is little research into the factors that influence the survival and growth of social ventures.

Purpose of the article: The aim of this paper is to identify the main factors affecting social entrepreneurial activity (the case of Lithuania).

Methods: The article built on an overview of the scientific literature dealing with the topic, using methods of comparative analysis, systemic analysis, abstraction, synthesis. The paper relies on incisive primary and secondary investigation, analysis and interpretation of statistical data, questionnaire survey.

Findings & Value added: This paper presents the main tendencies of the social business structure and social entrepreneurship development tendencies in the world; the effects of environmental factors to create and proceed social entrepreneurial activity in Lithuania during years 2014 to 2018.

Originality/Value This study introduces a novel multidimensional measure of the social entrepreneurial environment that reveals how differences environment influence the of social entrepreneurial activity level in a country.

Practical implications – The proposed approaches help practitioners in the decision-making process for a formation of social entrepreneurship policy.

Tomasz Sosnowski
University of Lodz, Poland

Credibility of earnings reported by new stock companies: accrual and real earnings management

JEL Classification: *G34; G32; G23*

Keywords: *Initial Public Offering; Real earnings management; Discretionary accruals; Listing status*

Abstract

Research background: The initial public offering creates an excellent opportunity for researching the impact of changes in the institutional environment of companies, especially in the field of corporate governance, on the trustworthiness of the information disclosed in the financial statement around the corporate events.

Purpose of the article: The main aim of the study is to analyze the use of intentional actions in the form of both accrual and real earnings management to inflate earnings, revenue, or total assets around the going public event. Therefore, this paper contributes to the stream of study on the quality of financial reporting of new stock companies.

Methods: I use two main approaches reflecting the use of various types of earnings management activities, i.e. discretionary accruals and real earnings management. In both cases, it was necessary to use proper models to identify the normal level of categories affecting the results reported in the financial statements.

Findings & Value added: Using a sample of 183 IPOs from Warsaw Stock Exchange between 2005 and 2015 I find that, generally, managers of the new listed companies actively use discretionary accruals, reduction of production costs and certain discretionary expenses, abnormal cash flows from operations – being all my proxies of earnings management – in the periods around the IPO. In the period prior to the IPO, managers more often introduce techniques typical for the real sphere of the company's operations, in particular the deliberate modeling of certain discretionary costs. In turn, the use of discretionary accruals dominates in the year after the IPO.

Michaela Staničková, Lukáš Melecký
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Opportunities and threats of socio-economic development: application of composite index to the EU NUTS 2 regions

JEL Classification: C38; C43; C82; O18; R10; R11

Keywords: *composite index; entropy weight; European Union; NUTS-2 region; spatial inequalities*

Abstract

Research background: The 2007-2008 economic and financial crisis struck in turn several interconnected economies across the world, revealing the underlying problems of the global economy. The subsequent economic crisis strongly affected European states, revealing the structural weaknesses of the common policy framework. The uneven geographical development pattern, an inherent characteristic of socio-economic development, has prevented the achievement of convergence objectives in the European integration framework.

Purpose of the article: Thus, the current economic crisis has exacerbated the preexisting disparities and conflicts between the European North and South and contributed to the development of different crisis symptoms. Both the depth and duration of the crisis differ among the countries. The purpose of this study is to introduce evaluation of socio-economic development convergence and divergence trends, challenges and prospects among the EU countries in the context cohesion.

Methods: The aim of this study is to propose original methodology for assessing development of regions based on the construction of own composite index calculated from selected indicators in the EU Cohesion reports. The main is to assess socio-economic dimension of cohesion and spatial inequalities in NUTS 2 regions of the EU Member States during the reference period 2000-2017.

Findings & Value added: Findings contain features of typology premises of the EU28 and point to a large diversity in inequality patterns, as authors observe both increases and decreases in spatial inequalities at the EU level. Recent changes in inequalities have been associated with the impacts of economic and financial crises. Additionally the development challenges are discussed for improvement of the socio-economic well-being of the EU and to avoid or minimize disparities.

**Mariya Stankova, Tsvetomir Tsvetkov,
Lyubov Ivanova**

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The effect of the terrorism on the revenues from the international tourism in Europe and the United States

JEL Classification: *F000; C21*

Keywords: *terrorism; revenues from international tourism; managing uncertainty*

Abstract

Research background: In the context of complex global relations, the movement of people, especially those related to tourism, raises new issues concerning the safety and security. The tourism industry has a priority for the economic development of many countries in the world and is a large source of export earnings and, at the same time, an important factor in the balance of payments of a significant part of the national economies in the world. The growing importance of the tourism industry, however, puts tourist destinations worldwide at the forefront of new challenges, one of which is terrorism. In this environment, new relationships are emerging and development strategies are being affected, but the financial outcomes of tourism are also largely affected.

Purpose of the article: Respecting the new realities, the study explores the link between the risk of terrorism and the income from international tourism. Its main purpose is to investigate the impact of terrorism on the financial revenues from tourism in the European countries and the United States. The research is determined by the perception that the financial flows from the international tourism are the quantitative manifestation of the hidden effects of the terrorism.

Methods: The research method includes a regression cross-section analysis and Granger Causality test. The survey is panel and includes 36 countries from Europe tourism region and the United States from Americas' tourism region (according UNWTO).

Findings & Value added: In conclusion, the effects of terrorism on the studied regions have been summarized, commenting on the prerequisites provoking such events.

Agnieszka Stanowicka

University of Warmia and Mazury in Olsztyn, Poland

The image of the city as a factor of its development in the light of selected theories of regional development

JEL Classification: *R11; R58; O11; O43*

Keywords: *regional development; city development; image; identity*

Abstract

Research background: The image of the city is its non-physical resource which, if properly used, can become a factor in its development, attracting both capital and human resources of the city (eg tourists, investors, residents). According to the author, the municipality should create a model of the city's development, which will define its desired state - the image which they will aim, stimulating its growth and development. In the construction of this model, and therefore the strategy of creating image of the city, it is advisable to identify the factors that determine this development. On the basis of economics, the theories of regional development deal with the identification and assessment of development factors.

Purpose of the article: Image as a non-physical and internal resource of the city, is part of the scope of endogenous theories. The aim of the article is to review and evaluate these in terms of consideration the image of the city.

Methods: On the basis of a critical review of the literature, the author will assess in which of them the issues of building identity and creating the desired image of the city are included, and therefore which should be included in the planning process of shaping the desired image of the city.

Findings & Value added: Theories of regional development are not mutually exclusive, each theory introduces other development factors to the analysis, not excluding the most often assumptions and factors exposed in other theories. The assessment of the city's development potential (which results from the region's development) should not come from the adopted theory of regional development, but on the basis of known theories the factors creating city's image should be identified to improve its development.

Joanna Stawska
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Dependencies between variables from the area of the monetary and fiscal policy in the European Union countries

JEL Classification: *E00; E52; E62*

Keywords: *fiscal policy; monetary policy; coordination; European Union*

Abstract

Research background: The core of the coordination of monetary and fiscal policy (policy mix) is based on the combination of both policies to enable to achieve goals related to price stability as well as economic growth and employment. In turn, the decisions of economic authorities made in the monetary-fiscal game have a significant impact on economic variables in the economy. In the economic literature, the importance of monetary and fiscal policy coordination is emphasized as it has a positive effect on the stability of the economy.

Purpose of the article: The aim of the article is to identify the dependencies between variables in the scope of fiscal policy and monetary policy under the existing economic conditions and then their impact on the economy in the EU countries.

Methods: To achieve this objective the following research methods were used: a review of the scientific literature, presentation of statistical data and statistical research methods.

Findings & Value added: The rationale for the adoption of such issues is to examine the impact of the financial crisis on the decisions of central banks and governments in the European Union. The financial crisis has affected a change in approach to the conduct of monetary and fiscal policy. The changing economic conditions forced economic authorities to take many decisions, which affected the interaction between the central bank and the government in the European Union countries. In many EU countries, in the discussed period there were significant interdependencies between variables in the field of both, monetary and fiscal policy.

Agata Surówka
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Taxonomic analysis of the diversity of situations on local labor markets in the areas of airport Rzeszow - Jasionka, Katowice - Pyrzowice and Cracow Balice

JEL Classification: *C10; J01; C80; J40*

Keywords: *air transport; quantitative methods; airports*

Abstract

Research background: As generally known, the development of air transport, especially airports belongs to effective and modern factors of competitiveness and the development of regions in the conditions of a knowledge-based economy. Recently, research into the impact of air transport on the situation on local labor markets is of great practical importance. These issues became the source of interest in a study that has been divided into two main parts. The first part is characterized by the research methodology. The second part presents a fragment of results from the study. The source of data was statistical information prepared by the Central Statistical Office. The entire study was concluded with a summary containing the most important research findings.

Purpose of the article: The literature assumes that the areas of influence of airports on regional labor markets are three isochrones: 60, 90 and 120 minutes. Due to the fact that modern science doesn't provide suggestions for identifying areas that are located in this area, the aim of the research is to propose a modern toolkit with which it is possible. The Geostatistics Portal was used to implement it. It should be emphasized that the proposed method of verification of these areas and graphical presentation of results is an important issue in the analysis of the impact of Polish airports on local labor markets.

Methods: The study carried out a taxonomic comparative analysis of the diversity of poviats located in the 100 km isochrone area for three ports, located in the southern part of Poland.

Findings & Value added: The study made it possible to assess the impact of air transport on the economic situation on the local labor market due to the indicator selected for the study. The proposed method is a new, effective, useful and modern approach to obtaining and analyzing statistical data for the catchment areas of Polish airports. It should also be emphasized that it is a certain contribution of the

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author to the development of research into the impact of air transport on the socio-economic development of the regions.

Lucia Svabová, Marek Durica

University of Zilina, Slovakia

Being an outlier - a company non-prosperity sign?

JEL Classification: C38; G33

Keywords: *Bankruptcy prediction models; Financial ratios; Failure prediction; Financial distress; Correlation analysis*

Abstract

Research background: State of financial distress or imminent bankruptcy is for every company a very difficult situation that the management of the company wants to avoid. If a company manager was aware of the impending difficulties in advance, he would have to make some necessary arrangements. For these reasons a prediction of company bankruptcy, or financial distress of a company is in recent years in a focus of economists and scientists in many countries over the world.

Purpose of the article: For the purpose of financial distress prediction, various financial indicators of the company, mostly financial ratios, are usually used. In order to create a strongly predictive model and a statistically significant prediction of bankruptcy is advisable to use a deep statistical analysis of the data used. In this paper we analyze the real financial ratios of Slovak companies. In the phase of data preparation for further analysis we have checked the existence of outliers in the data and have found that there are some companies that are multivariate outliers because are significantly different from other companies in the database. So we deeply focused on these outlier companies and analyzed whether to be an outlier is a sign that the company is in the state of financial distress.

Methods: We analyzed whether in the set of outlier companies there are much more non-prosperous companies and their financial indicators are significantly different from that of the prosperous companies. For these analysis we used testing of the statistical hypotheses, such as test for equality of means and chi square test.

Findings & Value added: The ratio of non-prosperous companies between the outliers are significantly higher than 50 % and the attributes of non-prosperity and being an outlier are dependent. The means of almost all financial ratios of prosperous and non-prosperous companies between outliers are significantly different.

Katarzyna Szara
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Technological conditions for building the potential of creative capital in the municipalities of the Podkarpackie Province

JEL Classification: *R11; R12; R5*

Keywords: *technology; creative capital; municipality; Podkarpackie*

Abstract

Research background: Both technology and talent as well as tolerance are factors that affect local development but, in accordance with the concept by R. Florida, they also stimulate the development of creative class that is an example of creative capital.

Purpose of the article: The aim of the paper is to identify technological conditions in building the potential of creative capital in Podkarpackie municipalities.

Methods: In pursuit of the adopted goal, the data obtained by means of a diagnostic survey among two groups of respondents: inhabitants and officials of Podkarpackie municipalities were used. The tests were performed using PAPI and CAWI methods.

Findings & Value added: In the research approach the original modification of the Florida methodology related to one of the criteria, i.e. technology was applied. It was assumed that technology was not only a determinant of local development but also creative capital at the local level.

The assessment made with the use of indirect measures by respondents shows that technological conditions in municipalities are important, which indirectly indicates predispositions for the development of creative capital. The technological predispositions of municipalities for building creative capital are demonstrated by an ability to use specialist knowledge by people in the municipality at work and in personal life. The comparison of the assessments of both groups of respondents shows that the opportunities for the development of creative capital through the prism of features describing the technology were assessed by the inhabitants of municipalities rather than by civil servants. Municipalities were also better rated.

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Changes in comparative advantages of the Polish food sector in world trade

JEL Classification: *F14; L66; Q17*

Keywords: *comparative advantages; foreign trade; competitiveness, food*

Abstract

Research background: The period after Poland's accession to the European Union is a period of systematic development of Polish foreign trade in food products. Positive changes were visible already in the first year, but trade turnover and the balance of food exchange were even more dynamic in the subsequent years of Poland's membership in the EU.

Purpose of the article: One way to assess the competitiveness of Polish food sector is the analysis of comparative advantages (relative) in the trade of products of this sector. So the aim of the presented research is to assess the comparative advantages of the Polish food sector (including its most important chapters).

Methods: The analysis of comparative advantages was based on the Balassa revealed comparative advantage index (RCA), relative trade advantage index (RTA) and the Lafaya's trade balance index (TBI). The analyses covers the years 2004-2017. The data source was the WITS-Comtrade trading database, in which trade flows are expressed in USD. The analysis was carried out at the HS chapter level.

Findings & Value added: The analysis of comparative advantages in the Polish trade in food products showed that during the membership in the European Union Poland had relative comparative advantages in the food trade on the world market. In the food trade with the EU, Poland also had comparative advantages, but they were slightly lower. The products with comparative advantages in 2017 accounted for 78% of the total value of Polish trade in food products and 80% of trade with the EU. The dynamic development of trade in food products after Poland's accession to the EU, as well as significant comparative advantages in trade in these products, testify to the competitiveness and high importance of the Polish food sector for the national economy.

Anna Szymańska, Jurij Klapkiv
University of Lodz, Poland

Impact of e-commerce on distribution channels of insurance services

JEL Classification: *G22; L81*

Keywords: *Insurance distribution; sale of insurance online; internetization; e-commerce; distribution channels*

Abstract

Research background: The development of modern technologies has changed the awareness of policyholders. On the one hand, the Internet has increased customer access to both product information and insurance services. On the other hand, modern technologies that allow for quick and efficient comparison of offers have increased the requirements for insurance products. Socializing the society plays a key role in shaping the insurance distribution environment.

Purpose of the article: Changes in the legal sphere allowed to conclude online market transactions to a greater or lesser extent, which strongly influenced the structure of distribution channels. The aim of this study is to analyze the factors and barriers to digitization of insurance services in the Visegrad countries.

Methods: The study analyzes the correlation between the number of people using the Internet to search for information about goods and services and the number of insurance services sold using the Internet.

Findings & Value added: The potential of e-commerce in insurance was discussed and trends of changes in the dominance of distribution channels in the compared countries were presented. The importance of legal regulations and the acceptability of new business conditions by insurance intermediaries was stressed.

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Ethical consumption as an alternative to the consumer lifestyle of modern society

JEL Classification: *D11; D12; E21*

Keywords: *ethical consumption; consumerism*

Abstract

Research background: Consumption research is a current and important problem in many areas of economic life. Excessive and unjustified consumption for many individuals has become a lifestyle, with many negative consequences. In this aspect, the possibility of reorienting consumer consciousness of modern society should be sought. An alternative in this case can become ethical consumption, which is consume the conscious more rational and responsible. In this model, individuals buy only those goods that they really need. In consumerism, however, the individual does not wonder if the product he is buying is really needed, the willingness to show up, competition and the feeling of being better than others is important. Consumerism for today's society has become so very natural that its evolution towards an ethical consumption model is a difficult process. In order to reduce the negative effects of consumerism, however, it is worth taking steps to make consumption more ethical. Consumption as it is now should not be propagated. In the long-term perspective, it may lead to irreversible changes. It should be remembered, however, that this rooting of consumerism in modern society is so great that it is not realistic to adopt an ethical model of consumption in full under current conditions. Therefore, it should be assumed that ethical consumption may be an alternative to consumerism, but not to the full extent of its assumptions.

Purpose of the article: The aim of the article is to present ethical consumption as an alternative model of functioning of contemporary society embraced by consumerism.

Methods: In the article were used such methods as: literature studies and statistical analysis.

Findings & Value added: The added value in the article will be the indication of the benefits of adopting an ethical model of consumption by contemporary society in terms of the assumptions of sustainable consumption.

Ewa Ślęzak, Mariola Mamcarczyk
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Globalization and gender aspects of professional sport. The case of Poland

JEL Classification: F6; Z20; Z23; Z28

Keywords: *globalization; gender; professional sport; sports results*

Abstract

Research background: Globalization, including its digital facet, plays an active role in spreading information on sport, i.e. competition, results and sportspersons. The Olympic Games and various cups raise interest of public. Interestingly, individuals no longer have to travel to be able to watch the competition. With no fatigue and with more detail than those on the spot, thanks to modern technologies they can enjoy the benefits of the game. Having said so, some supporters still decide to visit places where the games are held, to be able to cheer and enjoy the atmosphere.

Modern, digital technologies and media are vividly present in assessing the games and create a very strong link between the world of sport and fans. The “big brother” is there, always present, ready to provide information and to spread the news. It is not surprising that it impacts the decisions of donors and fans is seen, as well as various facts and hidden truths, like gender imbalance.

Purpose of the article: The paper aims at analyzing the impact of modern digital technologies on professional sport in Poland, with the emphasis on gender bias. The issues of gender involvement in professional sport, financial support and effectiveness will be scrutinised and juxtaposed to digital exposure of various disciplines.

Methods: The analyses will be based on the results of the Olympic Games between 1924 and 2016. The applied research methods include a critical literature review and analysis of collected statistical data.

Findings & Value added: The paper fills a gap in the existing literature, where gender bias and modern technologies is not discussed widely. In spite of the digital exposure, access to information by public the analysis of the Polish sportspersons, show certain patterns; there are imbalances between disciplines, level of donations and financing trends, diversification of involvement and success between men and women, to name a few.

Arkadiusz Świadek, Jadwiga Gorączkowska
University of Zielona Góra, Poland

Innovative cooperation in industry and business support organizations in Poland in 2013–2017 – system perspective

JEL Classification: *O31; O32; L60*

Keywords: *Business support organizations; cooperation; innovation; technology park; incubator*

Abstract

Research background: Innovative economy and the business environment are important factors in the socio-economic development of the country. In a knowledge-based society, economic processes (especially innovation activity) require a specific stimulus. This stimulus can be provided by business support organization, which have been present in the Polish economy since the 1990s.

Purpose of the article: The main goal of the article is to assess the system impact of business support organizations on cooperation in the area of new solutions (product and process innovations) in industry in Poland.

Methods: The research method which was used in the analysis was logit modelling. Cooperation in the area of new solutions with the supplier, recipient and competitor was established as a dependent variable and business support organizations as independent variable. The analysis using logistic regression was based on comparison two groups of enterprises: those that were service recipients of support organizations and those that did not belong to this group. In this way, it was possible to determine if the use of BSO services increased the chances for innovative cooperation in industry. The survey was conducted in 2013-2017 among 6284 industrial enterprises.

Findings & Value added: The survey showed that business support organizations significantly and systematically influence the establishment of innovative cooperation. Recipients of support organizations twice more often cooperated with suppliers and recipients than entities that did not. Stimulation of cooperation with competitors by BSO was weaker than it was in the case of suppliers and recipients.

Natalia Świdyńska

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Condition and perspective of changes in the level of infrastructure in communes – convergence or divergence?

JEL Classification: *H54; O18*

Keywords: *commune; development; infrastructure; convergence; divergence*

Abstract

Research background: Areas equipped with infrastructure are perceived as attractive, so that they are able to attract both investors and new residents and tourists, and thus their social and economic development. Areas poorly equipped with infrastructure are considered unattractive - poor condition of the infrastructure contributes to the marginalisation of the region. Public infrastructure is the element that determines the occurrence of development disproportions in the levels of social and economic development of a given area. There are currently two extreme phenomena in the global economy - convergence and divergence.

Purpose of the article: To determine the period of time necessary to equalize the levels of technical, social and tourist infrastructure of underdeveloped economies to the communes with the highest level of development.

Methods: The determination of the period necessary to level out the infrastructure levels of underdeveloped economies to the communes with the highest level of development was carried out with the use of the statistical method. Communes of Warmińsko-Mazurskie Voivodeship were studied. The condition of infrastructure was examined on the basis of data for 2016. The perspectives of developmental disproportions between the three types of infrastructure until 2030 were determined. The study used a logistic function, characterized by a good match to historical data.

Findings & Value added: The research carried out allowed us to formulate a conclusion that in the coming years there will be a divergence of technical, social and tourist infrastructure in the communes of the Warmińsko-Mazurskie Voivodeship. Local and regional authorities should therefore be aware of the danger facing them. The lack of an appropriate social and economic base in their area may result in depopulation of communes.

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The peer to peer economy in travel industry

JEL Classification: *N7; P43; Z3*

Keywords: *peer to peer economy; travel industry; aviation transport; Airbnb, Uber*

Abstract

Research background: The topic of the article was chosen for two important reasons: the first is that the peer-to-peer economy stands on the invisible border between the shadow economy and those one that is officially declared.. The second fact is the importance of travel industry for the development of national and mainly regional economy. The travel industry consist of many branches like transport, accommodation, local services like guide service etc. and everyone of them seemed to be hit by some kind of peer to peer economy with the result of tax cuts, loss of competitiveness and tension in respective industry. Shared economy applications are dynamically developing in many areas including tourism and air transport. This development is also hampered by many legislative barriers. These barriers are caused, on the one hand, by inappropriate legislation that did not foresee a business in the sphere of shared economy, possibly non-existent legislation. The authors also deal with selected legislative issues in the research areas

Purpose of the article: The aim of the article is to make analysis of the impact and possible limits of development and usage of peer to peer economy (sharing economy) in travel industry.

Methods: To reach the aim of the article the methods of secondary data analysis as well as field research will be used. The analysis of a current position of Airbnb in accommodation sector and its possible further restriction in Europe, the analysis of current usage of peer to peer economy tools in transport sector and limit of its usage in aviation transport and based on structural interview the analysis of its possible usage in local services.

Findings & Value added: The result of the article is to identify perspectives and limits in the development of peer to peer economy. The topic of using peer to peer economy in aviation transport is relatively new phenome and it's not so explored so one of added value will be the created summary of limits of peer to peer economy in that kind of transport and and their selected legislative problems.

**Ihor Taranskyi, Nataliia Kuzo, Nataliia Kosar,
Svitlana Lykholat**

Lviv Politechnic National University, Ukraine

Directions for improvement of competitive capacity of the products of domestic and Polish milk-processing enterprises at the market of Ukraine

JEL Classification: *M31; L15; L66*

Keywords: *market of dairy products; competitive capacity of products; import of products; products quality*

Abstract

Research background: Intensification of competition at the market of food products forces producers to use the instruments to keep the existing consumers and attract new ones. They look for the opportunities to strengthen competitive capacity of their commodities by means of their specification among the analogues. Low level of competitive capacity of the goods of domestic producers at the national and world markets endangers the state economic safety, makes preconditions for growth of import products come into Ukraine. Thus, Ukrainian producers should analyze the level of competitive capacity of their products and the products of competitive enterprises, including foreign ones, and determine directions for its strengthening. Dairy products belong to the goods of everyday use and are essential for people's life. Ukraine has great perspectives to increase demand for the goods. However, growth of the amounts of sale of the products of domestic enterprises requires rising of the products' competitive capacity. The issue confirms relevancy of the present research.

Purpose of the article: The aim of the article is to analyze the market of dairy products in Ukraine and to study competitive capacity of dairy products of domestic and Polish milk-processing enterprises at the market of Ukraine.

Methods: To achieve the goal of the research the following methods were used, particularly empiric investigation (to study the tendencies of development of dairy products market in Ukraine); economic and mathematic methods and models (to determine competitive capacity of some kinds of dairy products).

Findings & Value added: The article describes tendencies of development of dairy products market in Ukraine and principal parameters of competitive capacity, using the function of consumer benefit for some kinds of dairy products of domes-

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Faculty of Economic Sciences and Management, Nicolaus Copernicus University

tic and Polish producers. It argued the directions for the competitive capacity improvement.

Anna Tatarczak

Maria Curie-Skłodowska University, Poland

Horizontal collaboration in sustainable logistics

JEL Classification: *C71; R40; J54*

Keywords: *smart city; sustainable logidtics; horizontal cooperation*

Abstract

Research background: Currently, with a growing economy and established financial resources, the concept of efficient transportation and logistics has been gaining increasing importance in research and policy making strategies. Implicit in many promoted initiatives towards building smart cities, is the need to promote logistics collaboration. In light of the current strongly competitive business environment and the problems of globalization that we face, the demand for sustainability requires new designs of models for logistics collaboration

Purpose of the article: In order to ameliorate this problem, the area of horizontal cooperation between enterprises(shippers) should be considered as it could make a valuable contribution to more flexible and thus innovative and competitive logistics. In this paper, the impact of horizontal collaboration in sustainable logistics has been studied.

Methods: The first specific field of analysis sheds light on an example of collaboration. In this context, methods such as backhauling and line exchanging are described. The investigation of these methods focuses on how sustainable they are, and in addition, emphasizes how highly relevant they are to both innovation and competitiveness in our cities as well as being a viable way to achieve a better utilization of our transporation capacity. Next, the paper presents a systematic review of the literature, which examines the term "horizontal cooperation", which is aimed at the sustainable development of smart cities.

Findings & Value added: The paper also presents a list of the positive as well as the problematic aspects of horizontal cooperation with regards to their practical impact on collaboration and performance. The findings may serve as a basis for further research on the subject, and public managers may consider applying our findings in the area of the management of their cities.

Katarzyna Twarowska

Maria Curie-Skłodowska University in Lublin, Poland

Reforms of China's exchange rate regime and the renminbi interna-tionalization

JEL Classification: *F31; F32; F40; N25; O24*

Keywords: *exchange rate policy; export-led growth strategy; trade competitiveness; global imbalances; renminbi internationalization*

Abstract

Research background: After four decades of very successful reforms, China has become one of the largest economies in the world. An important area of these reforms is the exchange rate system and monetary policy, which over the years has complied with economic objectives, in particular the promotion of economic growth by improving export competitiveness. The progressive liberalisation of the Chinese economy and its ever closer integration into the world economy require this policy to be adapted to changing circumstances.

Purpose of the article: The aim of the article is to analyze China's exchange rate policy from the perspective of the dilemma of choosing between using this policy to support export competitiveness and striving to internationalise the renminbi. Moreover, the author assesses the consequences of this policy for China's economy and for the world economy.

Methods: The study includes theoretical research (analysis of the literature and research reports) and empirical research (analysis of statistical data) using a descriptive comparative analysis.

Findings & Value added: For many years China's exchange rate policy has been focused on supporting economic growth by improving export competitiveness, resulting in both increasing internal imbalances and difficulties in stabilising inflation, as well as the accumulation of global payments imbalances. Since 2005 China has made its currency more flexible, so that the underestimation of the renminbi's exchange rate has decreased. In recent years, China has intensified its efforts to support the internationalisation of the renminbi, which should have a positive impact on the stability of global financial relations.

Małgorzata Twarowska-Ratajczak

Maria Curie-Skłodowska University in Lublin, Poland

Foreign direct investment in the financial sector in EU member states – does additional taxation of the financial sector reduce inflow of FDI

JEL Classification: *H22; E62; G21; G22*

Keywords: *bank levy; financial transaction tax; foreign direct investment; financial sector; taxation*

Abstract

Research background: The literature contains numerous studies concerning the impact of taxation on the inflow of FDI, however it is worth noting that these studies focus on the impact of income taxation rather than additional financial sector taxation. Most of the studies indicate a significant negative tax impact on capital inflows. However, there are no studies on the impact of additional taxation of the financial sector on FDI flows.

Purpose of the article: The aim of the article is to assess the impact of introducing additional taxation of the financial sector on the location of FDI in EU member states. The studies also aim to show whether taxation of the financial sector contributes to the withdrawal of foreign capital from that sector.

Methods: The study is conducted by adopting both theoretical and empirical approaches. In order to verify the hypotheses presented in this article, the author will use quantitative analysis. The empirical analysis will allow determining the impact of additional taxation of the financial sector on the inflow of FDI to this sector. Verification research hypotheses requires the use of panel data regression analysis (Classical Least Squares *CLS* Methods for panel data). To verify the hypothesis, the balance of payments data of EU member states for the period 2007-2017 (quarterly) will be used, thus empirical section will rely on the panel data analysis.

Findings & Value added: Changes in FDI flows after the introduction of bank taxes or financial transaction tax in EU member states seem to be extremely interesting. Therefore, the pioneering nature of the research is primarily based on an analysis of the impact of a sectoral tax (which is usually levied on the assets or liabilities of a financial institution) on the location of foreign investment.

Jiří Uhman

Jan Evangelista Purkyně University in Ústí nad Labem, Czech Republic

Real estate market in the Czech Republic and its specifics

JEL Classification: *G11; R31*

Keywords: *Real estate; price of the flats; interest rate; regression*

Abstract

Research background: The real estate market is determined by many factors. It can be described according to the development of these factors. Among the most important factors belong flat prices, interest rate of the mortgages, rent prices, average wage and of course annual number of new flats. When the households want to invest in the residential real estate market they have to be able to understand the development of these factors.

First of all they have to be able to understand development of the prices and rent prices in this market. The real estate's prices are the most important. The investors and households have to watch where the prices go – increasing or decreasing? Are the prices on the real level, or without the market? The investors have to buy some real estate when the market is down or it begins to go higher. It is important never buy the real estate when the market went to the top price level in long time. People are willing to respect higher price of their flat or house when the quality of the real estate is reaching higher standard only. But we can ask: Is there a real model that relevantly describes real situation on the real estate market in the Czech Republic? We can try to find it.

Purpose of the article: The main goal of this article will be to describe based on current data the development and the actual situation in the real estate market in the Czech Republic and with the using regression analysis find a regression model that will be able to describe its future development in real estate in the Czech Republic. This article will be first parts of the presentation of results of the PhD project which autor solves with the financial support of the J. E. Purkyně University in Ústí nad Labem.

Methods: Author will use different scientific and statistical methods – above all will use regression analysis, description, comparison and synthetic method.

Findings & Value added: A functional dependence between residential property prices and selected indicators (rents of flats, average wage, mortgage rate and number of new apartments) on the real estate market in The Czech Republic will be found and introduced.

Paweł Umiński

Gdańsk University of Technology, Poland

Degree of monopoly and market power vs. price rigidity in Polish economy – empirical analysis based on COICOP classification

JEL Classification: *D42; D43; L11*

Keywords: *degree of monopoly; market power; price rigidity; COICOP; Polish economy*

Abstract

Research background: The issue of price rigidity is crucial in economy both in the aspect of company theory and its macroeconomic consequences. In a number of publications, the sources of variable price rigidity are linked to the market power of enterprises as well as the market structure that developed in a given branch. It is difficult to indicate empirical studies that would state clearly whether price rigidity depends on the degree of monopoly or the market power of enterprises. This paper concerns that particular field of study.

Purpose of the article: The purpose of the paper is to present the statistical dependence of the degree of monopoly and market power vs. price rigidity in economy.

Methods: The analysis has been conducted using aggregated data concerning Polish economy in the period from 2001 to 2013, based on COICOP. The degree of monopoly indicator was the average number of companies in a given branch, following the classical models of market structures; the market power indicator was the average net revenue from sales of products per enterprise representing a given branch; the measure of price rigidity was the probability of price variation estimated using the Calvo pricing model. It is therefore a frequency-based approach to price rigidity. Statistical dependence was analysed using the Spearman's rank correlation coefficient and simple regression models.

Findings & Value added: The outcomes indicate that there is no statistically significant relation between the degree of monopoly and price rigidity and also between the market power and price rigidity. Thus, the findings of the analysis support the studies which reject the assumption that higher degree of monopoly or higher market power of an enterprise is followed by more rigid prices.

**Tomáš Valentiny, Emília Huttmanová,
Peter Adamišín, Roman Novotný**
University of Prešov, Prešov, Slovakia

Assessing the impact of air pollution on the labor market in the Eu-ropean area

JEL Classification: *Q51; Q56; J21; I15*

Keywords: *Air pollution; Labor Market; Labor Productivity; Supply shock*

Abstract

Purpose of the article: The aim of the paper is to determine the impact of air pollution (AP) on wage levels, labor productivity and total labor cost within EU and EEA countries during 2004-2016. Determining these AP impacts on the labor market will help to determine the level of social costs associated with the AP (the human capital method) and the determination of wage elasticity (compared with the situation without AP) using different methods.

Research background: Research background: The number of workers with AP-related illnesses was determined via dose-response analyses. Similar approach was used for estimation of the hours worked by these employees. We have approached the problem as a supply-side shock on the labor market offer (a situation with no AP vs. AP situation) assuming full employment, unchanged production, and unchanged savings.

Methods: The methods (generalized linear models, fixed effect model or random effect model) reflect the longitudinal nature of the data. Given the small number of country observations (resulting from unavailability of data), the countries were grouped into clusters by cluster analysis.

Findings & Value added: The expected average wage decrease (in the AP scenario) of the EU countries as a whole was 0.0495%, assuming a reduction in productivity by 0.0041% and a reduction in hours worked by 0.1023%, led to an increase in total work costs by 0.0257%. Such a low decline in aggregate wages is associated with a proportionally low number of people suffering from AP disease. Therefore, elasticity of wages was determined, the results of which show a relatively low effect of the shock on supply-side due to AP. Determining the impact height of the AP helps to optimize the environmental tax and determination of economic optimal pollution. At the same time, it will help to optimize the costs of subjects, respectively maximize their profit.

Nga Thi Vo, Miloslava Chovancová
Tomas Bata University in Zlin, Czech Republic

Building satisfaction through service quality: the influence of room rate strategy towards luxury hotels in Vietnam tourism market

JEL Classification: *O10; O53; P22; P36*

Keywords: *customer engagement behaviors; brand loyalty; customer satisfaction; room rate; service quality*

Abstract

Research background: Regardless of hotel star rating, numbers of room that a venue has given, an effective room rate strategy is necessary to success.

Purpose of the article: Consequently, this study aims to identify distinctive perception of customers attributes associated with the dynamic room rates towards 4 and 5-star hotels in the context of Vietnam tourism market.

Methods: A case study was developed and attached in the questionnaire to support the understanding of respondents regarding the application of different hotel room rates on different market segments which have been used in the hotel industry. A combination of online and offline survey through 300 individuals which was conducted through exploratory factor analysis and performed to test the hypotheses.

Findings & Value added: The results indicate that consumer engagement behaviors and customer loyalty constructs have no positive relationship with service quality provided towards the customer's cognition of hotel room rates. Moreover, the significant impact of price fairness, revenue management and loyalty intention on perceived service quality plays crucial role on the level of satisfaction in the context of hotel's room rate management. This research is one of the pioneering studies specifically focusing on hotel room rate strategy. The finding contributes to the understanding of the influence of customer perception of hotel room rates over the degree of customer satisfaction. The current study offers new insights into the set of customer cognition attributes that drives customer loyalty and satisfaction as the hotel choices over time during the stay. This study proposes suggestion for practitioners the ways possible to enhance level of customer satisfaction towards perceived service quality more effectively depending on customer perception of hotel room rate strategy.

**Lenka Výstupová, Roman Zámečník,
Ludmila Kozubíková**

Tomas Bata University in Zlín, Czech Republic

The sustainability of the existing cost management system with an emphasis on the public sector

JEL Classification: *M21; M40*

Keywords: *Activity-based analysis; Activity-based costing; Cost management; Private sector; Public sector*

Abstract

Research background: The basic condition of the financial management of all types of organizational units, both public and private, is undoubtedly the knowledge of costs. Any entity offering its services and products for a fee must be able to evaluate its performance correctly, which, of course, is not possible without knowledge of costs.

Purpose of the article: The purpose of this paper is to compare the cost management approaches in the public and private sectors, with emphasis on the public sector.

Methods: We analyzed data collected in 2017 from 201 respondents, from both the public and private sectors, in the Czech Republic. We focused on the attitude of public sector units (63 respondents) towards the use of Activity-based costing (ABC) and the consequences for financial management in comparison with private sector units (138 respondents). For statistical analysis, we used methods of descriptive statistics and Pearson statistics (Chi-Square Test, P-value).

Findings & Value added: The main results of this paper are that most respondents do not use ABC and that there are statistically significant differences between the public and private sectors. Furthermore, private sector units calculate the full cost of their activities significantly more than public sector units. Despite this, the results showed that most entities, both public and private, charge costs in such a way so as to be able to determine the total costs of their activities at any time. Statistically, many more private entities do not manage public resources, while significantly more public sector entities discover the costs of all their activities, including those financed from public sources. Most of the respondents in both groups surveyed make important financial decisions based on knowledge of the full costs of their activities. The conclusion follows that, although the majority of entities surveyed do not use the ABC method, it was at least partly applied in sub-areas of financial management.

Anna Wawryszuk-Misztal

Maria Curie-Skłodowska University in Lublin, Poland

Determinants of board diversity policy implementation by companies listed on the Warsaw Stock Exchange

JEL Classification: *G304; G34*

Keywords: *corporate governance; board diversity policy; institutional theory*

Abstract

Research background: Diversity management is one of the hot topic issues present in current public discussions. Board diversity requirements are quite new for Polish public companies. The companies listed on the Warsaw Stock Exchange have to publish a statement on the company's compliance with the corporate governance recommendations and principles included in "Best Practice for GPW Listed Companies 2016". This regulation is based on the principle 'comply or explain', thus the company may decide whether to comply with every rule included in the code, but decision on not implementing one or more rules should be explained by the company. Some of the recommended rules regard the board (supervisory and management) diversity policy implementation, where diversity refers to such dimensions as gender, education, age and professional experience.

Purpose of the article: This study aims to investigate determinants of board diversity policy implementation by domestic companies listed on the WSE. It also documents explanations provided by companies that do not apply board diversity policy.

Methods: The research sample covers 268 non-financial domestic companies listed on the Warsaw Stock Exchange between 2016 and 30 November 2018. The companies' current reports on company compliance with the corporate governance codes and information issued on companies' websites were analyzed in order to identify those that announced implementation of the board diversity policy. This study uses logistic regression analysis to explain the relationship between firm-level characteristics and the likelihood of board diversity policy implementation.

Findings & Value added: This is the first study analyzing the drivers of board diversity policy implementation by Polish companies listed on the WSE. It shows that large companies, companies with larger management boards and companies with woman acting as president of the supervisory board are more likely to take actions seeking to achieve management and supervisory board diversity.

Anna Wichowska

University of Warmia nad Mazury in Olsztyn, Poland

The process of shrinkage of municipalities and its relation with the budget revenues on the example of municipalities of the Warmian-Masurian Voivodeship

JEL Classification: *H2; H6; J11*

Keywords: *municipal budgets; local revenue; demography; aging of the population; shrinking cities*

Abstract

Research background: Contemporary unfavorable demographic changes in many urban centers around the world are defined by the process of their "shrinkage" or "urban depopulation". This process is accompanied by many consequences, mainly of an economic and financial nature. The litmus test showing the economic effects of this process can be the budget revenues of local units.

Purpose of the article: The aim of the article was to assess the phenomenon of the shrinking of municipalities in Poland and to determine the degree of demographic factors impact on their budget revenues. The example of the Warmian-Masurian Voivodeship municipalities was used in the research.

Methods: The evaluation of the "shrinking" of municipalities in a selected voivodeship was carried out in accordance with the SCRIN methodology. It is assumed that the process of "shrinking" of a local unit occurs when its population decreases from one year to the next by more than 0.15% for a period of at least 5 consecutive years. The adopted research period covered the years 2010-2017.

In order to assess the impact of demographic changes on various types of revenues of the municipal budget, survey method were used, which were carried out among the treasurers of all municipalities in the selected voivodeship.

Findings & Value added: The results of the research indicate the symptoms of the shrinkage of municipalities in the selected voivodeship. They also confirmed the existence and strength of dependence between various types of budget revenues of municipalities and the demographic structure of municipalities in the Warmian-Masurian Voivodeship. The results of the presented research may be the basis for further in-depth research on the dependence of the demographic structure on local budgets. They may also constitute the first stage of a discussion on the shrinking cities in the economic background of which are transformations of agricultural.

Wioletta Wierzbicka

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Socio-economic potential of cities belonging to the Polish National Cittàslow Network

JEL Classification: *O18; R11*

Keywords: *slow cities; Polish National Cittàslow Network; socio-economic potential; ranking of cities*

Abstract

Research background: The Polish National Cittàslow Network was established in April 2007. The founders of the network were four cities from the Warmińsko-Mazurskie Province (Biskupiec, Bisztynek, Lidzbark Warmiński and Reszel), and a supporting member was the Marshal's Office of the Warmińsko-Mazurskie Province. The aim of the Polish National Cittàslow Network is to promote and spread the idea of good life by implementing in the cities appropriate solutions in the field of environmental policy, infrastructure, quality of urban life, hospitality and social cohesion. Currently, 28 cities belong to the Polish Cittàslow network. These cities are joined by a common idea and common goals adopted to improve the quality of residents' life. However, each city has a different history, tradition, natural values, and also has a different development potential.

Purpose of the article: The aim of the study was to assess the differentiation of the socio-economic potential of cities belonging to the Polish National Cittàslow Network.

Methods: The research covered all member cities of the network. The synthetic index was used to assess the socio-economic potential of cities. The grouping of cities was carried out using the hierarchical Ward method.

Findings & Value added: Differentiation of the socio-economic potential of cities belonging to the Polish Cittàslow network is at the medium level. The highest socio-economic potential is characterized by Rzgów, a city that is part of the Łódź agglomeration. In the second place in the ranking is Lubawa, a city located in the Warmińsko-Mazurskie Province. The city with the lowest potential is Rejowiec Fabryczny, located in the Lubelskie Province. Most of the cities of the Polish Cittàslow network are cities with an average development potential. However, these cities hope that membership in the network will become a factor that positively accumulates their development.

Tomasz Wierzejski

University of Warmia and Mazury in Olsztyn, Poland

Household expenditures and internationalization of the agri-food sector in Poland

JEL Classification: *A11; D10; D12, F00*

Keywords: *household expenditures; consumption; agri-food sector; sector internationalization*

Abstract

Research background: Analysis and assessment of household expenditures, in particular factors influencing their changes and economic effects that these changes may cause, are part of an important trend of microeconomic research, also in international scope. In Poland, after accession to the structures of the European Union, household income grew steadily. This process was further accelerated as a result of the introduction of the social programme "500+" in 2016. In recent years, expenditure on food and non-alcoholic beverages has the highest share in the total expenditure structure of households - in 2017 it was 24.3%. At the same time, the agri-food sector was characterized by high rates of active and passive internationalization, particularly the dynamic growth of exports.

Purpose of the article: The main purpose of the work is to assess the relationship between household expenditures on food products and the degree of internationalization of the agri-food sector in Poland and the attempt to define consumer attitudes in analyzed socio-economic conditions.

Methods: The review and research nature of the work contributed to the selection of the following research methods: critical analysis of the literature and statistical analysis of available secondary data, ordered in time series. For this purpose, publications of the Central Statistical Office concerning the budgets of households as well as production and foreign trade in agricultural products were used. The time scope of the research covers the period of Poland's current membership in the European Union - 2004-2017.

Findings & Value added: As a result of the research, conclusions will be formulated regarding consumer choices depending on the origin - domestic or foreign - of purchased food products. The analyzes carried out will also allow for the assessment of consumer patterns, especially in the area of ethnocentrism and cosmopolitanism.

Anna Wildowicz-Giegiel
University of Białystok, Poland

The role of independent fiscal councils in improving fiscal performance of the European Union countries

JEL Classification: *H30; H60; H62; H63; H87*

Keywords: *public finance; independent fiscal councils, fiscal performance*

Abstract

Research background: Independent fiscal councils are an example of new fiscal institutions, the number of which has increased rapidly around the world, including the EU countries, since the global financial crisis of 2008-09. A further deterioration of public finance provoked many economists to the intense disputes on the optimal shape, functions and effectiveness of fiscal councils which are responsible for promoting sound fiscal policy. Taking it into consideration, a research focus on independent fiscal councils, active in the public debate in Europe, seems to be intellectually attractive.

Purpose of the article: This article aims to explore the impact of Independent Fiscal Councils on fiscal performance, paying a particular attention to their mandate, tasks and institutional models which can strengthen the achievement of fiscal discipline in the EU-28. In addition, the question about effectiveness of fiscal councils arises, especially in case of institutions that were compulsory created under the external pressure (at the European level) and found no strong political support in national parliaments.

Methods: Descriptive analysis along with panel data analysis was implemented to show the role of fiscal councils in enhancing fiscal discipline in the EU countries.

Findings & Value added: The improvement in fiscal performance and better macroeconomic and budgetary forecasts can be achieved thanks to well-designed fiscal councils supported by appropriate fiscal rules. The conducted analysis confirms that independent fiscal councils are the useful mechanism introducing indirect social control on government revenue and government expenditure. This means greater fiscal transparency and lower fiscal illusion between the government and electorate. Due to the increase of transparency in public finance, it is possible to reduce the 'partisan' deficit bias that contributes to public debt growth. The empirical research extends the existing knowledge on the role of fiscal councils, their desirable institutional shape and impact on fiscal performance.

Adam Wiśniewski

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Competitiveness of sports market enterprises. Determinants, classification, challenges

JEL Classification: *A11; D22; D41*

Keywords: *competitiveness; organization; sport industry; management*

Abstract

Research background: Over recent years, dynamic development of new sectors and industries has been observed. As research conducted in 2004 shows in the entire European Union, sport generated 407 billion EUR of value added, which is 3.7% of GDP of the entire EU. At the same time, it generated 15 million jobs, which is 5.4% across the EU. According to the Report of the Ministry of Sport and Tourism presented in 2010 named "Rachunek Satelitarny Sportu dla Polski", in the 2006 in Poland, the total value of demand for sports goods and services was PLN 20.7 billion. This is equivalent to the share of GDP in total Polish GDP in 2006 at 1.96%. Increasing the number of entities on the sports goods and services market mainly on the supply side resulted in increased competition and the need to devote their attention to elements related to competitiveness.

Purpose of the article: This paper aims to present the main determinants, analyze and attempts to classify sports market entities in team-played disciplines. The study included subjects competing in the field of volleyball.

Methods: In the research there was used method of secondary data analysis focused on international and domestic regulations regarding functioning and competitiveness of sport companies in volleyball major league (PlusLiga). Also there was used the method of survey questionnaire submitted personally to club representatives or its' CEO. The study was addressed to all volleyball clubs from PlusLiga. Time range of the research was sport season of 2017/2018.

Findings & Value added: As a result of the study, conclusions regarding the manner of their rivalry and the instruments of competition used for this purpose were presented. A group of factors shaping a competitive position was listed. One of the major conclusions was statement that clubs competitive position can only be measured in terms of sport results. This is due to the fact that there are different priorities in shaping the budget. Part of the sport entities focuses to maximizing the budget while some maximize profit. The paper is the starting point for further research on competitiveness on the sports market to be gradually extended by further disciplines.

Danuta Witczak-Roszkowska

Kielce University of Technology, Poland

Social capital as a determinant of innovation in European countries

JEL Classification: *O5; O31; Z13*

Keywords: *social capital; social trust; diffusion of innovation; Hellwig's method*

Abstract

Research background: The process of creating and diffusing innovation is conditioned by a variety of factors, with social capital as particularly important. Social networks based on trust foster openness to new views, opinions, and values and encourage interactions and cooperation. They facilitate access not only to tangible resources but, what is especially important at a time of knowledge economy, to intangible resources, in particular, human capital. Working together combined with access to information collected in networks produces synergies enhancing the ability to create, absorb, and diffuse innovation.

Purpose of the article: The aim of the present article is to evaluate dependences between social capital of selected European countries and standards of their innovation using selected statistical methods.

Methods: Levels of social capital in some European countries are diagnosed by means of the standard development Hellwig method. The diagnostic characteristics serving to compile Hellwig synthetic measure are found in the European Social Survey. They represent the cognitive, structural and behavioural dimensions of social capital. The summary innovation scoreboard, compiled by the European Commission, is used to determine innovation standards of the particular countries. Dependences are then reviewed between social capital and innovation of European countries.

Findings & Value added: Particular attention is paid to geographical differentiation of social capital levels as part of the research objective. The analysis serves to distinguish country groups with maximum, high, low, and minimum standards of social capital and to determine a dependence between this standard and levels of these countries' innovation.

Magdalena Wojarska

University of Warmia and Mazury in Olsztyn, Poland

Evaluation of changes in the economic structure of small towns on the basis of the shift-share analysis

JEL Classification: *O18; R19*

Keywords: *economic structure; small cities; shift-share analysis; Kruskal-Wallis non-parametric test*

Abstract

Research background: The issue of small towns from the point of view of their role in the national and regional settlement systems is expressed both in governmental strategic documents and in scientific publications. Small cities constitute an important element of the spatial structure of the country and an intermediate stage on the axis of the city-village continuum. For this reason, detailed knowledge of the processes taking place there is extremely important.

Purpose of the article: The aim of the paper is to evaluate changes in the economic structure of small towns in Poland in 2009-2017.

Methods: The analysis is based on secondary data originating from the Local Data Bank. The empirical material collected was subject to calculations using a classical shift-share analysis and a Kruskal-Wallis non-parametric test. The former procedure made it possible to perform a detailed analysis concerning changes in the number of enterprises operating in small towns in 2009-2017 with reference to the processes occurring in other urban system units, while the latter was used to determine the statistical significance of the observed differences.

Findings & Value added: The obtained results permitted a positive evaluation of the hypothesis that there were statistically significant differences in the economic structure of small towns and other urban system units in Poland. Additionally, they demonstrated that the most favourable situation was found in section R (activity related to culture, entertainment and recreation) and in combined sections S and T (other service activities; households as employers; goods-producing activities of private households for own use), which were the only sections (out of 21 sections of the Polish Classification of Business Activities) that developed faster in small towns than in their counterparts at the urban system level, additionally demonstrating higher competitiveness.

Małgorzata Wosiek
University of Rzeszow, Poland

Rural-urban differences in human capital in Poland after 1988

JEL Classification: *O15; O18; R11*

Keywords: *human capital; socio-economic cohesion; rural areas; Poland*

Abstract

Research background: The subject of the study is the phenomenon of the economic and social cohesion in Poland in spatial terms (in the urban/rural dimension at a district level) in respect of human capital development. The human capital theory as well as the sustainable development theory provide the basis for the research.

Purpose of the article: The main goal of the study is to assess the level and changes of population structure by educational attainment (adopted as a human capital indicator) between rural and urban areas of Poland after 1988 in the context of convergence process. The second aim, to assess the spatial diversification of rural/urban areas in order to the search for factors responsible for the distribution of human capital in rural (urban) areas of Poland after 1988.

Methods: The study covers rural and urban areas by districts (powiats). The changes of population structure by educational attainment were evaluated using the taxonomic methods of measuring inter-structural distances (based on "Canberra" metrics), the Kruskal-Wallis test and the regression analysis. All data were provided by CSO of Poland (Local Data Bank, National Census).

Findings & Value added: Expanding the existing research findings, the study presents typologies of urban and rural areas (at a district level) according to structural distances in the field of educational attainment of the population. On this basis, the study indicates the factors that might have differentiated the population structure by educational level in urban and rural areas of Poland. The results also allow to verify the research hypothesis that the changes in the spatial distribution of human capital resources in rural areas, as well as between rural and urban areas of Poland after 1988, were of a convergent nature. At the application level, the results are helpful in verifying the effectiveness of financial resources, directed in recent years to stimulate the development of rural areas in Poland.

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Globalization and its implication on the Nigerian manufacturing sector

JEL Classification: *F1; F2; O3*

Keywords: Globalization; Gross Capital Formation; Manufacturing Output; Exchange rate.

Abstract

Research background: Globalization is seen as a geographical shift in economic activities around the globe, it is the geographic dispersion of industrial and service activities and the cross-border networking of companies, hence, this study investigates the impact of globalization on Nigerian Manufacturing sector.

Purpose of the article: The study aims at examining the impact of globalization on the performance of the Nigerian manufacturing sector

Methods: The study employed the classical least square to measure the causality effects of globalization on the said sector performance with the application of secondary data, giving the nature of the nature the need for a unit root test is inevitable. The ADF test of stationarity reveals all variables turns stationary at first difference.

Findings & Value added: The result reveals that exchange rate as integral variable of globalization play a significant role in the productive level of the manufacturing sector while foreign direct investment doesn't, rather it serves as a transmission mechanism in the sector. On the other hand, gross capital formation is very crucial in determining the sector productive capacity, statistically significance with a positive relationship with manufacturing sector output of the economy. The estimated regression line has a good fit and generally significance as reveals by the coefficient of determination and the f-statistics, that despite the insignificance status of foreign direct investment, hitherto, the selected variables are the true determinants of the manufacturing sector performance. Base on the findings the study recommended that manufacturing sector firms to take advantage of the recent currency swap policy in the boasting the sector productive capacity.

Izabela Zabielska

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Integration and partnership models in the transnational area – the role of borders and cross-border cooperation

JEL Classification: *F15; F55; O19; P48*

Keywords: *partnership models; cross-border cooperation; border regions; borders; EU*

Abstract

Research background: integration and cross-border partnership as an important tool that promotes cooperation and stimulates the development of less developed border regions.

Purpose of the article: to determine the importance of partnership and cooperation in border areas. The theoretical part will define the role of borders within the EU and will review the forms of cooperation and the principles of cross-border cooperation. The empirical part - this is a concentration on examples of cross-border cooperation, distinguishing two main situations: the border between Member States and the borders between the EU and neighboring countries.

Methods: literature studies and empirical research - primary (intelligence questionnaire) and secondary

Findings & Value added: establishing supranational relations and, as a result, integration and cross-border partnership, enables the flow and exchange of experience, knowledge and cooperation, thus affecting the economic development of cooperating regions.

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CSR – an element of the company's strategy, image or greenwashing?

JEL Classification: *M14; M15; O15; Q56*

Keywords: *management; CSR; environment and development; organizations culture*

Abstract

Research background: Modern companies are looking for a competitive advantage, not only in new technologies and innovative products offered to clients, but also in the introduction of modern tools to management. This type of activities includes the implementation of the concept of sustainable development, eco-development and CSR into management practice. In practice, their implementation can serve different purposes and fulfill various functions. Research shows that some companies with a strong market position try to shift organizational and financial burdens associated with the implementation of selected socially responsible practices to their subcontractors, while usurping at the same time the effects of their application. Also they often introduce solutions that the market forces to apply as CSR initiatives, although in practice they are PR activities only. Therefore, it is interesting to conduct research aimed at diagnosing the real intentions of introducing this kind of solutions into practice.

Purpose of the article: The analysis of literature and company information on CSR practices and sustainable development, including eco-solutions, allows us to diagnose research areas that require deeper analysis and allow us to determine the purpose of the proposed article. It is to examine how individual pillars of CSR and sustainable development are used in creating and implementing the organization's strategy and shaping its image, and in what situations it should be assessed as a "greenwashing".

Methods: Implementation of this objective will be served by the study of international literary sources, as well as case studies conducted on the basis of source materials of selected companies and institutions involved in reporting good practices.

Findings & Value added: The result of this analysis will be the presentation of the study outcome and the conclusions that result from it for business practice. Particular attention will be paid to issues concerning the influence of organizational culture on the implementation of socially responsible activities or their faking, as well

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as the impact of implementation of social responsibility assumptions on organizational culture and company management.

Robert Zajkowski, Ada Domańska
Maria Curie – Skłodowska University in Lublin, Poland

Differences in perception of regional pro-entrepreneurial policy. Does obtaining support change a prospect?

JEL Classification: L26; P48; R11; R58

Keywords: *entrepreneurship; entrepreneurial ecosystem; regional development; regional economic policy*

Abstract

Research background: Entrepreneurship is one of the most crucial factors of regional development that influences competitiveness through absorption of specific regional development-driven assets. It is emphasised that local authorities, due to creation of regional economic policy, play an important role in entrepreneurship development. They should frame an effective entrepreneurial ecosystem as a platform for advancement of various kind of businesses. Additionally, a business support policy has to be realised in long term perspective and adjusted strictly to local circumstances and resources. But, with scientific evidence and theoretical studies, business entities asses effectiveness of an entrepreneurial ecosystem from a prospect of their own experience and knowledge. More profound analyses allowed us to identify a research gap related to differentiation in perception of various aspects of regional pro-entrepreneurial policy between businesses being supported or not. We formulated a hypothesis as follows: business entities that obtained support asses an regional pro-entrepreneurial ecosystem as more efficacious than those that not obtained.

Purpose of the article: The main purpose of the paper was to identify significant differences in a perception of regional pro-entrepreneurial policy between businesses that obtained or not obtained support.

Methods: The primary data used in the paper were collected within a survey conducted in 2017 (CAWI and PAPI techniques). After rejection of incomplete or wrongly filled questionnaires, the sample totalled 386 enterprises. In numerical analyses, we used dual-variable (0-not supported; 1- supported). As independent variables, we adopted 18 factors that depict on ordinary scale perception of various aspects of regional pro-entrepreneurial policy. The variables were complemented with two controls. On this base we calculated a logit regression model. The model occurred to be statistically significant.

Findings & Value added: Based on the model, we identified 9 statistically significant differences in the perception of regional pro-entrepreneurial policy between surveyed groups of companies. The findings confirmed our hypothesis and fulfilled partly the identified research gap. Our results generally confirmed that companies that are experienced in obtainment of support, perceive pro-entrepreneurial policy as relatively more effective and accessible than firms that did not get public support. The added value of our findings refers to potential adjustment of regional information and a promotion policy that could be encouraging for companies that avoid to undertake steps to achieve some forms of public support.

Tetiana Zatonatska

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The Internet and e-commerce diffusion in European countries

JEL Classification: C50; F02; F20; L86; O30

Keywords: *information and communication technologies; e-commerce; diffusion; Internet; GDP*

Abstract

Research background: Due to the development of modern globalized society, the Internet has become a vital stimulus for progress not only in the world economy, but also in other spheres of human activity. Nowadays, it's difficult to find an area where this technology is not being used.

Purpose of the article: The purpose of the article is to predict the Internet diffusion in several European countries, which are similar in their territorial characteristics. The authors try to answer the question about the biggest potential for Internet diffusion among Austria, Poland and Ukraine.

Methods: The article uses data, which distinguishes both real and potential Internet users. This change in population is associated with potential consumers, since the number of Internet users is most often used in terms of population. The calculations used data from the official websites of the World Bank and Eurostat for the period from 1990-2017 for the distribution of the Internet and broadband Internet access. All calculations and modeling were made in Microsoft Excel.

Findings & Value added: In many publications it was proven that income per person is one of the most important factors determining the speed of Internet technology distribution. But, it is not necessary to link the Internet distribution only with economic welfare. An important factor is also economic freedom, especially in low-income countries. The integral elements of the development of high technologies in the modern world are property rights protection, development of competition, liberal tax legislation, developed labor markets, democracy. We consider that the spread of Internet technologies undoubtedly contributes towards the development of e-commerce in Austria, Poland and Ukraine. Ukraine has significant potential for accelerating the spread of Internet and e-business. The processes of decentralization associated with the creation of united territorial communities in

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Ukraine only accelerate the spread of broadband Internet access, since each united community must be provided with a connection that requires joint efforts of telecommunication operators and authorities of different levels of government.

**Monika Zatrochová, Milan Majerník,
Martina Kuperová, Štefan Majerník**
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Humanisation of technical education or freedom – based education

JEL Classification: A29; A13; A20

Keywords: *education; humanization; technical education; freedom-based education; communication*

Abstract

Research background: Education of humanisation and learning means to renew, constantly create, protect and develop the human dimension of education and training. It consists in the production of unique, self-centered personalities. European education has two traditions - Demokrit and Plato. The Demokrit tradition is geared towards learning things, learning about the nature's pretexts, the obvious reality. It is a human being for the purpose of explaining the world. This line mediates learning through training, learning skills to control the world. Plato's tradition is related to the self-healing of man, by transforming himself, revealing the power of self-creating.

Purpose of the article: Humanist education is based on trust in the strength and ability of the pupil, the respect for his personality, the recognition of his value as a person, regardless of his or her current status, the partnership of a teacher and a pupil. It underlines its own activity, self-education, self-evaluation, self-regulation, self-realization of man.

Methods: The methods used in this paper are based on the theoretical part of the basic methods such as analysis of the logistics. Furthermore is used the synthesis and method of comparison that are forming the basis for the next research. In the practical part, we used a qualitative method in the form of expert interviews with both the staff and the students. We then processed the results statistically.

Findings & Value added: Freedom-based education is based on effort to harmonise and conciliation. Education must begin by solving the conflict between the teacher and the student, reconciling opposing poles, understanding that both are also becoming teachers and students.

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Assessment of the commercial potential of biotechnologies and laser technologies: comparison the results of the expert survey

JEL Classification: *O32*

Keywords: *assessing the commercial potential; biotechnology; laser technology; the significance of the factors.*

Abstract

Research background: Most of the attempts to commercialize technologies ends in failure, and thus the ability to timely and objectively assess the expediency of technology commercialization, in order to avoid non-productive investments is a crucial step for the institutions engaged in scientific research and R&D. In the course of research has been established, that specifics of different technology manufacturing branches are important for assessing the commercial potential. The scientific literature of the last years did not take into account the specific of biotechnologies and laser technologies.

Purpose of the article: This article discusses in detail the preparation processes of the models for assessment the commercial potential of biotechnologies and laser technologies. The results of the expert survey aimed at determining the significance of the factors are compared, efforts are made to identify differences in the assessment of the commercial potential of these two technology manufacturing branches.

Methods: the multiple criteria method is applied the selection of which was determined by the motive related to the goal of assessment - assess the commercial potential of biotechnologies and laser technologies.

Findings & Value added: Customization model for assessing the commercial potential of technologies for different technology manufacturing branches would allow achieving a more objective assessment of the commercial potential and a more rational use of resources.

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The impact of the unemployment level on non-standard employment forms in the Visegrad Group countries

JEL Classification: *E24; J20; J21, J70*

Keywords: *unemployment rate; non-standard employment; Visegrad Group countries*

Abstract

Research background: The scale of presence of non-standard forms of employment in the different economies depends on the laws in force, the offer on the demand side (employers), and the interest in that offer on the supply side (employees). Non-standard employment is more beneficial to employers than to employees because it often involves worse working conditions and lower wages.

Purpose of the article: The purpose of the article is to study the relationship between the unemployment rate and the share of non-standard forms in employment in a selected group of countries in the long term. The hypothesis is that changes in the unemployment level are related to changes in the share of non-standard forms in employment.

Methods: The evaluation of the relationship between the level of unemployment and the share of non-standard employment forms in Visegrad Group countries includes a comparison of the changes in the unemployment level and the share of non-standard employment forms in employment in the 15-64 age group. In order to verify the hypothesis, the coefficients of correlation and determination between the unemployment rate and the employment in non-standard forms were calculated.

Findings & Value added: The hypothesis of the article was not confirmed in most of the analyzed cross-sections. Although a statistically significant relationship was observed between the unemployment rate and part-time employment, in a half of the studied countries the relationship was positive and in the other half - negative. The only exception was Poland, due to the very high correlation between the unemployment rate and all the analyzed non-standard employment forms, which was confirmed by high determination coefficients.

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Tourism in smart specialisations in voivodships in Poland

JEL Classification: *O21; O31; O43; R11; R58*

Keywords: *tourism; smart specialisations; regional policy; regions of Poland*

Abstract

Research background: Smart specialisation is one of the topical paradigms of building a region's competitive advantage, which emphasises the territorial nature of regional development. The concept of smart specialisations was proposed together with a new vision of the European Union development in the Europe 2020 Strategy and it is an attempt at improving the effectiveness of innovation processes. It is founded on the assumption that regions should not and cannot develop actively in all areas at the same time. They should choose such areas for which they have the best developed resources and focus their R&D and innovation activities in them. The essence of the smart specialisation concept lies in integration of two perspectives of building a region's competitive advantage – a combination of sectoral and regional perspectives. Smart specialisations should be firmly embedded in the endogenous regional resources, they should stem from traditions, experience and the socio-economic history of the region, thereby creating its uniqueness. Tourism is a sector which has an opportunity to build a region's competitive advantage.

Purpose of the article: The purpose of the article is to answer the following question: is tourism an important area of specialisation in Polish regions?

Methods: The study methodology involved an analysis of existing materials, such as regional innovation strategies and regional development strategies. The analysis and conclusions were also based on verification and critical analysis of the literature of the subject and the European Union program documents, as well as domestic opinions prepared by experts for the authorities. The article presents the principles of smart specialisations based on theoretical foundations of regional development and methodology of selecting smart specialisation on the national and regional level. A spatial analysis of intelligent specialisations was performed, with tourism taken into account.

Findings & Value added: The analysis shows that tourism plays an important role in the socio-economic development of regions in Poland, because it was selected as the smart specialisation (leading or supporting) in 10 of the analysed regions. An analysis of cases in which tourism was selected in smart specialisation strategies in

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Polish regions shows its links to medicine and healthcare (pro-health tourism, spa tourism).

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The impact of quality management on the level of net working capital

JEL Classification: *G10; G33*

Keywords: *working capital; quality; management*

Abstract

Research background: Net working capital is designed to secure financial security for enterprises. Its level depends on the strategy of managing individual elements of net working capital. An appropriate management strategy allows companies obtaining added working capital. Working capital management is a difficult process because it applies to current assets as well as current liabilities. Therefore, company managers are constantly looking for certain solutions, methods and tools that will help them manage working capital. The system that facilitates control over the management of individual elements that create net working capital is a quality management system. An introduction of appropriate procedures derived from quality management systems in individual areas is a big support for creating positive net working capital.

Purpose of the article: The aim of the article is to show how the introduction of quality management systems can positively affect the level of net working capital. The article presents how quality management systems allow optimizing the level of individual components creating positive net working capital.

Methods: The research was conducted on a group of 38 Polish small commercial enterprises operating in the same industry. These enterprises were divided into two groups: for units using a quality management system and for those that do not use such systems. Based on the financial statements for the years 2015-2018 and using appropriately selected financial ratios, an analysis of the impact of quality management systems on net working capital was carried out. Then, the results in individual areas of management of individual components of net working capital in individual groups of enterprises were compared. The research was carried out using appropriate statistical methods.

Findings & Value added: The conducted analysis showed that enterprises using quality management systems managed net working capital more efficiently. In the literature, the topic of the impact of quality management systems on working capital is not popular. The article may be a source for further, extended research and

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considerations regarding the impact of quality management on working capital in enterprises.

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Venture capital: what macroeconomic and institutional factors do drive the demand side in Poland, Czech Republic and Hungary?

JEL Classification: *E14; G24; C12*

Keywords: *Macroeconomics; Institutions; Venture Capital; Demand; Central and Eastern Europe*

Abstract

Research background: Venture capital is usually defined as a form of private equity focused on start-up companies. Venture capitalists are looking for entrepreneurs with innovative business plans who need not only investment but also management expertise in letting their companies grow. Recent academic studies identified many macroeconomic and institutional factors influencing venture capital market that might be an important contributor to country's economic growth. In central and eastern Europe is, however, the volume of projects covered by venture capital rather poor compared to their western European counterparts. Barriers on both the demand and supply side are discussed in recent academic studies.

Purpose of the article: In this paper we intend to understand which factors influence the demand side of the venture capital market in three central and eastern European countries, specifically in Poland, Czech Republic and Hungary. Furthermore we analyze the impact of the same indicators on venture capital markets in the United Kingdom, Germany and Austria to compare these well-developed countries with their worse developed peers.

Methods: We aim to understand the factors that influence the amount of resources allocated by venture capitalists in selected countries. We use data covering the period between 2007 and 2018. Our main methodological tools are descriptive and regression analyses.

Findings & Value added: To our knowledge, the previous literature did not document the impact of the selected factors on the demand for venture capital in any of the CEE countries, and thus the theory and corporate practice grapple with insufficient empirical results.

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Managers' decisions and strategic actions of enterprises in Poland in the face of digital transformation

JEL Classification: *M15; M21; O32*

Keywords: *management; enterprise; digitalization; transformation; virtualization*

Abstract

Research background: Digitalisation as a continuous process of convergence of the real and virtual worlds is becoming the main driving force for innovations and changes in most sectors of the economy. What is especially important is that current changes are radical, and in some cases even disruptive, bringing completely different values to market players and consumers. In order to cope with these changes, individual enterprises and whole sectors, public administration, society and national economies need to undertake digital transformation.

Purpose of the article: The aim of the article is to indicate areas of activity in which information technologies are most often implemented in enterprises in Poland as well as managers' strategic approach to this problem in the face of digital transformation.

Methods: In order to assess the degree of enterprises' engagement in the process of implementing modern information technologies, a survey was conducted. The survey questionnaire consisted of a dozen questions concerning the perception of the issue of digital transformation and its inclusion into key strategic and organisational documents, enterprises' readiness to implement modern technologies, organisational culture, ICT use and achieved effectiveness.

Findings & Value added: Digitalisation of the economy and society is one of the most dynamic changes of our times, opening up new opportunities to create business models, while bringing uncertainty and various threats connected, among other things, with social consequences of the automation of production processes and security in a broad sense. The paper presents the level of Polish enterprises' engagement in the process of digital transformation and shows how the progress in terms of implementation of modern ICT.

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The effect of changes in the economy structure on entrepreneurial activity in a transition economy

JEL Classification: *L16; L26; M 13; P20*

Keywords: *structural changes; entrepreneurial activity; transition economy; service sector*

Abstract

Research background: While entrepreneurship in transition economies is the subject of growing body of a literature, the debate on factors influencing entrepreneurial activity in such economies is still incomplete. This paper extends this debate by focusing on the effect of changes in the economy structure on entrepreneurship in Poland. The findings might be supportive for policymakers in pursuing policy aimed in boosting entrepreneurship in a transition economy.

Purpose of the article: The aim of the paper is to investigate the extent to which changes in the economy structure which arose from transformation to market economy impacts entrepreneurial activity in Poland. The paper contributes to the literature by providing empirical support to the pending research efforts to recognise entrepreneurship dimensions in a transition economy.

Methods: Hypotheses were tested with fixed effects panel regression with robust standard errors. Data were sourced from the Central Statistical Office of Poland for all Polish NUTS-2 regions for period 2003-2016. Panel data is balanced and includes 3360 observations.

Findings & Value added: This paper extends previous research on factors affecting entrepreneurial activity in a transition economy by focusing on the importance of changes in the economy structure for new firm creation. The findings provide evidence of the significant value of service sector in boosting entrepreneurial activity in Poland. The findings might attract attention of policymakers. Fostering structural change towards smart specialization in services should be regarded when constituting programs supporting entrepreneurship.

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External linkages and intellectual assets as indicators of firms' innovation activities. Results from the Czech Republic and Poland

JEL Classification: *O30; O52; R11*

Keywords: *indicators of firms' innovation activities; external linkages, intellectual assets; the Czech Republic; Poland.*

Abstract

Research background: Firms' innovation activities play an important role in fostering firms' competitiveness and enhancing economic growth of regions and countries. Regarding the significance of the issue, the essential is to explore indicators of firms' innovation activities. Here, special attention was given to external linkages and intellectual assets. In the study, the particular emphasis was put on firms from the Czech Republic and Poland as the countries distinguished by the same performance of innovation.

Purpose of the article: The aim of this paper is to explore whether external linkages and intellectual assets impact on innovation activities of Czech and Polish firms.

Methodology/methods: In the study the Ordinary Least Squared regression was employed. This method allowed hypotheses testing. The study used data from the European Innovation Scoreboard 2018 with regard to firms' innovation activities. In particular, special concern was put on indicators related to external linkages and intellectual assets dimensions: innovative SMEs collaborating with others, public-private co-publications, private co-funding of public R&D expenditures, PCT patent application, trademark applications, design applications. The time period was 2008–2015.

Findings & Value added: This paper contributes to the existing literature by providing new insight on understanding the issues connected with indicators of firms' innovation activities. The results reveal statistical significance of selected indicators connected with external linkages and intellectual assets dimensions to innovation activities of Czech and Polish firms. These findings have policy and practical implications. There is a need to further stimulate, among others, linkages between firms and universities, research organisations, institutional environment.

Alina Żróbek-Róžańska

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Problems and conflicts resulting from unfinished privatisation/communalisation of residential real estate on the rural areas – selected SOF case study

JEL Classification: *R11; R14; R38, H82*

Keywords: *local politics; spatial conflict; residential real estate*

Abstract

Research background: Polish current economic situation has been still shaped by economic and social conditions that were present before transition commenced at the end of XX century. The reminiscences of the previous system, including unfinished privatisation or communalisation of the real estate properties, have continuous impact on the new circumstances for managing and social living. As relatively new economic order and administrative organisation of the state underline the importance of the local authorities in shaping the quality of citizens' life, the spatial and real estate management seems to be the significant component of the local politics. However, managed areas cannot be described as „clean slates” and the space is developed with real estate properties, often equipped with complicated ownership structure. Multi-ownership of the objects localised in the particular communes makes the realization of the local politics remarkably more difficult and leads to spatial conflicts and blurred responsibility.

Purpose of the article: The aim of this paper was to present the problematic results of functioning State Owned Farms (SOF) in the past and present unfinished privatisation/communalisation of State owned residential real estate properties on the rural areas. Special attention was paid to spatial and social conflicts resulting from incomplete transition and inherited life style.

Methods: As described problem is very complex (results have both economic and social character), author selected monographic method for the area particularly shaped by functioning in the past State Owned Farms – braniewski powiat. Data was gathered from the following sources: GUS (Main Statistical Office of Poland), KOWR (National Centre for the Agriculture Support), local authorities' offices. Moreover, author conducted direct interviews with people inhabiting the areas, where SOFs were localised in braniewski powiat.

Findings & Value added: Considering the issue in the wider historical perspective and microscale of particular communes within the administrative borders of the

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braniewski powiat resulted in more detailed picture of changes in Polish economic-social reality in the problematic areas.

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The application of Granger's causality to the study of the impact of stock exchange indexes on the food sector listed on the Warsaw Stock Exchange

JEL Classification: *C01; C22; G14*

Keywords: *stock exchange; food sector; stationarity; Granger's causality*

Abstract

Research background: When making decisions, investors wanting to invest in specific companies often pay attention to the situation prevailing in the entire market or in a given industry. Therefore, the starting points are the historical and current quotations of companies and indexes published by stock exchange.

Purpose of the article: The capital market is a system in which there are various types of connections, in particular between companies or companies and indexes. The main goal of the paper is the examining of the dependence between quotations of the companies and market indicators. It seems obvious that interrelationship should exist. The indexes taken into account are WIG, WIG20, mWIG40, sWIG80 and WIG-food.

Methods: In order to answer the question whether there are dependencies between the food industry (represented by the WIG-food index) and other market segments, i.e. the segment of small, medium and large companies and the entire market, research was conducted using the Granger causality test. Various delays were considered. Previously, the autocorrelation of return rates and their stationarity were examined. The data concerned the period 2008-2018, for which the monthly rates of return were determined. The rates are calculated in standard not-logarithmic way. The period of time taken into account is after crisis time but the market situation was unstable. There were periods of downward and uprise market.

Findings & Value added: It occurred that one period delays had the most influence on the correlations (also two, three and six delays were examined). That is why Granger causality test were performed for these cases. The final results show that the dependences between main indexes of Warsaw Stock Exchange and WIG-food are rather weak.

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Calendar anomalies for food sector companies listed on the Warsaw Stock Exchange

JEL Classification: *C01; C12; C22; G14*

Keywords: *stock exchange; food sector; calendar effects; regression model*

Abstract

Research background: The concept of calendar effects is understood as the systematic occurrence of various regularities in rates of return. They can appear both for individual stocks and stock market indices. Due to the existence of numerous anomalies, they are a frequent subject of research in many markets for various research periods. The calendar anomalies include the effect of the day of the week, the effect of the week in the month, the effect of the month in the year, the effect of January, the effect of December, or the less-probable effect of the turn of the month or the Halloween effect.

Purpose of the article: The subject of the research are companies that are part of the food sector represented on the Warsaw Stock Exchange by the WIG-food index. In addition to food industry companies, the research also included the WIG-food index. It is an index published since 1998, which includes companies from the food industry participating in the WIG index. The work focuses on the analysis of food industry companies and the WIG-food index for abnormalities.

Methods: The bases of the research are logarithmic rates of return, which were determined for daily closing prices from the period 2007-2019. The econometric methods, ie the regression model, were used to study calendar effects.

Findings & Value added: The results obtained show some regularities in the rate of return of the examined assets. This gives investors information about the possibility of rejecting the hypothesis about information effectiveness for small companies.

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