

# RIGA TECHNICAL UNIVERSITY Faculty of Engineering Economics and Management

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Faculty of Engineering Economics and Management Riga Technical University Kalnciema iela 6-213 LV-1048, Riga, Latvia

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## **SUBSECTION**

"Territorial and Regional Development, Construction Management"

# THE INFLUENCE OF THE SOCIOLOGICAL FACTORS ON THE MARKET VALUE OF THE RESIDENTIAL PROPERTIES

## Ciprian GHEORGHE<sup>1</sup>, Stefan-Iulian BUZESCU<sup>2</sup>

<sup>1</sup>Valahia University of Targoviste, Targoviste, Romania

<sup>2</sup> Ovidius University of Constanta, Constanta, Romania

Corresponding authors' e-mail: ciprian.gheorghe@mail.co.uk; siulian28@yahoo.com

**Abstract**. Estimating the market value of residential buildings is a complex mechanism influenced by both macroeconomic and microeconomic aspects.

The purpose of this article is to analyze how the most important factors influence the buyer's behaviour of residential buildings, but also quantifier them in the market value component. In the literature we find various classifications of sociological factors, depending on the opinion of each author, but the essential factors of influence are found at the most of them, the reason that in the exposure we will address extensively.

The research methodology used in this article is based on the collection, interpretation and analysis of data on the market value of the residential property in Romania, as well as their correlation with the theoretical sociological informations.

In view of the recent flow research on the behavior of the buyer of residential property, we will highlight the factors of external sociological nature of the type: age, family, groups of belonging, reference groups, training, professional, social class, income, subculture, culture. They do not act independently, but integrate into the macroeconomic and microeconomic environment of the country.

This article aims to analyze how sociological factors influence the value of residential buildings, as well as their interdependence, how they are found in expressing of the market value. At the same time, we will conduct a case study in which we will highlight the action of the sociological factors on the value through a complete analysis of apartment buildings with residential destination in the main cities with over 300,000 inhabitants from Romania

Keywords: Market value, Residential properties, Sociological factors, Valuation

JEL Classification: R30, R31

# PROBLEMS OF HUMAN CAPACITY DEVELOPMENT AND ITS INFLUENCE ON STATE DEVELOPMENT

### **Kristine GORBUNOVA**

Riga Technical University, Riga, Latvia

Corresponding author e-mail: kristine.gorbunova@rtu.lv

**Abstract**. The founders of the theory of human capital were A. Smith, V, Petti, K. Mark and other economics classics. The concept of "human capital" was developed by scholars such as G. Bekker, J. Kendrick, A. Marshall and others. As the paradigm of societal development changed, the view of scientists regarding investment, valuation of human capital and accumulation changed.

A number of scientists have sought and continue to determine the relationship between human capital and its impact on the economic development of a country or region. Scientists pay a lot of attention to the problem of human capital development, as well as methods of its evaluation. At the same time, the existing methods do not fully yield results due to the versatile nature of the object under study. Within the chosen theme, it is essential to develop approaches and criteria for evaluating the selected object so that they reflect the positive aspects, efficiency and negative consequences of development. It would also provide an opportunity to evaluate the effectiveness of possible changes.

The aim of the study is to develop a system of indicators that would allow understanding the regularities that determine and influence the development of a region's or a country's human capacity and its influence on state development, to forecast development opportunities and the resources needed for it.

The data are obtained from international and Latvian research, statistical data, state and local government reference documents, which will ensure interdisciplinary approach to the research of the selected issue.

Keywords: Human Capacity Development, State Development, Indicator system

**JEL Classification:** A13, J0

# METHODOLOGY FOR RESEARCH OF REGIONAL AND LOCAL SOCIO-ECONOMIC INEQUALITIES

## Ivaylo IVANOV<sup>1</sup>, Adriana STREKALOVSKA-GARKOVA<sup>2</sup>, Radostina SOTIROVA<sup>3</sup>, Spasimira GERANOVA<sup>4</sup>

1-4 University of Forestry, Sofia, Bulgaria

Corresponding author's e-mail: ihivanov@hotmail.com

Abstract. The research discusses different approaches, systems of indicators and techniques for studying of socio-economic development of territorial units. The aim was analysis of their applicability for measurement of inequalities at regional and local level. The tasks were a critical literature review of used approaches in high economic development countries and choice and adaptation of a methodology according the set of statistical data published by the National Statistical Institute of Bulgaria. The advantages and disadvantages of different approaches have been described and the most adequate of them for studying of regional and local socio-economic inequalities has been identified. A set of indicators for evaluating and ranking of territorial units in Bulgaria has been defined. A complex composite index for evaluation of regional and local socio-economic inequalities has been design. The conclusion of the research presents main possible areas for applying of the methodology and for using the index as a tool of regional policy in Bulgaria.

**Keywords**: Local inequalities, Methodology, Regional inequalities, Regional policy, Socio-economic development, Socio-economic indicators, Territorial unit.

JEL Classification: B40, O18, R10

# URBAN AGRICULTURE – AN INTELLIGENT SOLUTION FOR THE SMART CITY

## Milena YORDANOVA<sup>1</sup>, Tsvetelina NIKOLOVA<sup>2</sup>, Vera PETROVA<sup>3</sup>

<sup>1-3</sup> University of Forestry, Sofia, Bulgaria

Corresponding author's e-mail: <a href="mailto:yordanova\_m@yahoo.com">yordanova\_m@yahoo.com</a>

Abstract. Migration from village to city is a worldwide trend in Europe, the urban population exceeds 73% and in Bulgaria the urban population is over 74%. A major task of our time is to provide adequate food supplies to the growing urban population in a sustainable way, while protecting the vital functions and biodiversity of the global environment. Feeding a growing population is likely to be even more difficult in context the current and potential changes in climatic conditions. Urban agriculture is a good opportunity to improve the environment, partially utilization of the agricultural land lost as a result of urbanization, and provide fresh food to the residents of the area. Almost all crops, as well as bee, can be grown in urban settings. Vegetables are especially suitable because of the relatively short life cycle. Depending on the growing conditions, theirs production are ready after 35-40 days. One of the project tasks is to compare the possibilities of growing vegetables on the terrace of a public building and agricultural areas within the city of Sofia. The present study evaluates the impact of urban conditions on the development of crop with a short vegetation period - spinach.

Keywords: Smart city, Spinach, Urbanization, Urban agriculture, Vegetables.

**JEL Classification:** O13, O18, Q01, Q19, R19

# IMPACT OF UNIVERSAL BASIC INCOME ON THE ECONOMY OF LATVIA, LITHUANIA AND ESTONIA

## Ilze JUDRUPA<sup>1</sup>, Andis ROMANOVS<sup>2</sup>

<sup>1,2</sup> Riga Technical University, Riga, Latvia
Corresponding author's e-mail: <u>ilze.judrupa@rtu.lv</u>

**Abstract**. The aim of the research was to identify the feasibility of introducing universal basic income and the impact of its introduction on the economy of Latvia, Lithuania and Estonia. Research methods – literature review, analysis, synthesis, calculation of relative values, comparison, calculation of multiplier effect. Universal basic income definitions, studies and socio-economic issues related to basic income are analysed and summarized in the article. Economic factors are determined to assess the impact of the introduction of the basic income on the economy of Baltic states. The amount of universal basic income payable was calculated for three different forms and ways of payment. Costs of implementation on federal budget were assessed. Fiscal effect of the implementation of basic income was determined. The possibility of implementation of universal basic income in the Baltic region was evaluated. A comparison was made between the projected economic results of universal basic income implementation in the Baltic states. It is concluded, that the implementation of universal basic income would stimulate the economy, but it is not financially feasible due to strain its implementation would cause on the federal budget. Recommendations have been made to the Ministry of Well-being to re-evaluate guaranteed minimum income and to the state administration to launch universal basic income pilot projects.

Keywords: Federal budget, Social protection, Subsistence minimum, Universal basic income

JEL Classification: E62, H53, I38

# DEVELOPMENT OF TOURISM IN UKRAINE: TRENDS AND FACTORS THAT CREATE THE NEGATIVE IMAGE

## Iryna KARABAZA<sup>1</sup>, Tetiana KOZHUKHOVA<sup>2</sup>, Natalia IVANOVA<sup>3</sup>

Donetsk National University of Economics and Trade named after Mykhailo Tugan-Baranovsky, Kryvyi Rih, Ukraine

Corresponding author's e-mail: ikarabaza7@gmail.com

**Abstract.** The purpose of the article is to substantiate trends in the tourism activities in Ukraine and factors that create the negative image. The research is based on the dialectical method of scientific knowledge, methods of scientific abstraction, analysis and synthesis (while summarizing the factors that form the negative image of Ukraine and reduce its economic security); comparative analysis (while identifying the trends of tourism activity development in Ukraine during 2011-2017); statistical analysis (while studying the dynamics of the tourism industry in Ukraine during 2014-2017). As a result of the study, the trends of tourism activity development in Ukraine during 2011-2017 have been determined. The factors that form the negative image of Ukraine and reduce its economic security have been determined. The implementation of strategic measures for development of the Ukrainian tourism industry will create a positive image of the country, stimulate the development of tourism in Ukraine, formation of attractive investment environment and strengthening of country's economic security.

Keywords: Image, Tourism, Tourist activity, Factors

JEL Classification: O52, L83, L88

# URBAN AGGLOMERATIONS IN THE CONTEXT OF SUSTAINABLE SPATIAL DEVELOPMENT

## Alexey KOLBA <sup>1</sup>, Tatjana TAMBOVCEVA<sup>2</sup>, Maria TERESHINA <sup>3</sup>

<sup>1,3</sup> Kuban State University, Krasnodar, Russian Federation

<sup>2</sup> Riga Technical University, Riga, Latvia

Corresponding author's e-mail: mwstepanova@mail.ru

**Abstract.** The purpose of the study is to assess the possibilities of using political and administrative resources to identify and intensify the agglomeration potential of sustainable spatial development. The research approach based on a synthesis of economic, managerial and sociological methods. The study includes an analysis of the status and problems of spatial development of urban agglomeration, identifying the main factors of spatialeconomic development as well as relationship problems and factors of sustainable spatial development. The authors address the conceptual, legal and practical aspects of spatial development agglomeration, in particular, the problem of choosing management models, the delimitation of boundaries, reduce risks of conflict. Implemented the operationalization of the concepts of "sustainable spatial development" and "political-administrative resource" in relation to urban agglomerations. Special attention is paid to the dynamics, resources and mechanisms of development of Krasnodar agglomeration. It has allowed to formulate criteria for checking the initial hypothesis that the observed problems in the spatial characteristics of the Krasnodar agglomeration associated with the imperfection of the institutional environment that defines the conditions of the effective implementation of political and administrative resources On the basis of the expert survey identified and ranked the main problems for sustainable spatial development of the emerging Krasnodar agglomeration. For each problem identified and prioritized "universal" and specific politicoadministrative factors. The study allowed to conclude that existing constraints can be overcome through the application of political-administrative resources. Several areas of the use of political and administrative resources have been identified for the sustainable spatial development of agglomerations.

**Keywords**: Urban agglomeration, Sustainable spatial development, Political and administrative resources, Public administration, Agglomeration management models.

**JEL Classification:** R10, R58

The research was carried out with the support of the RFBR project no19-411-230022 «Political and administrative resources of public administration for socio-economic development of the Krasnodar agglomeration»

# QUALITATIVE ANALYSIS OF DEMAND FOR SERVICES IN THE CITY CRAFT QUARTER

### Andrejs LAZDINS

Latvia University of Life Sciences and Technologies, Latvia Corresponding author's e-mail: <u>lazdins.andrejs@gmail.com</u>

Abstract. Urban development is an important measure for ensuring the quality of life of citizens. Restoration of the historic area (buildings and grounds) of the Old Town adds a new function to the location. The purpose of the study is to find out the level of interest (demand) among young people in using the services of the historic craft quarter. The research used a qualitative demand analysis method, where a youth survey (age group 18-30) was conducted. The survey assessed two product groups: craft services (acquisition of skills and knowledge, recreation) and souvenir sales. Results obtained allow us to judge the level of interest of young people in the development of such craft quarters. The results show that young people are interested in the production of craft products and in acquiring new knowledge and skills. Young people would love to buy handicrafts. Young people are less interested in the souvenir market. They are not interested in collecting souvenirs, they are happy to buy souvenirs that characterize the place (including the historical place). The main conclusion is that the craft quarter is important for the development of the city, gives a new function to the Old Town quarter, and attracts young people to creative activities.

Keywords: Craft quarter, Young people, Qualitative analysis

**JEL Classification:** R23

# DIGITAL MODEL FOR ANALYSIS AND MANAGEMENT OF PROCESSES RELATED TO THE ECOSYSTEM SERVICE "WATER"

## Radoslav MILTCHEV<sup>1</sup>, Nevena SHULEVA<sup>2</sup>

1,2 University of Forestry, Sofia, Bulgaria
Corresponding author's e-mail: <a href="mailto:rmiltchev@ltu.bg">rmiltchev@ltu.bg</a>

Abstract. In the last years, an increased interest towards the integration of the concept and instrumentarium of ecosystem services has been observed, both in regards to the processes related to environmental management, as well as in the context of sustainable development of the economy on a local, regional and national level. In the most common case, what is referred to as services are possible benefits, which man can reap directly or indirectly from ecosystem functions. In that case, it is of great importance to analyze and assess the interactions between the human factor (individual groups of people or society as a whole in their capacity as consumers of the aforementioned services) with the conditions and processes through which nature ecosystems and organisms which constitute them, sustain and fulfill their life. The main accent of such an interaction are indisputably retaining biodiversity, the creation and multiplication of ecosystem resources. The present paper aims to observe the opportunities for creating a digital model, based on the use of GIS and suitable for the development and application of methods for analysis and management of processes associated with the ecosystem service "water". The aim is for a universal digital framework to be established, suitable for the development of computer applications for analysis, as well as making final management decisions in the context of retaining biodiversity, the creation and multiplication of ecosystem resources. This approach could be used for the research applications in different economic sectors public relations and environmental protections.

**Keywords**: Geographic Information System "GIS", Ecosystem services, E-business, Computer applications

JEL Classification: M15, O13, O21, O32

## DEVELOPMENT OF OFFICE ROOM RENTAL MARKET IN RIGA

## Nikolajs RAUZA¹, Tatjana TAMBOVCEVA²

<sup>1, 2</sup> Riga Technical University, Riga, Latvia
Corresponding author's e-mail: nikolajs@adarbnica.lv

**Abstract**. The purpose of the research is to analyze the development of the office space rental market in Riga and the factors affecting it. Ensuring the availability of modern office space is an important task for developers. The results show that tenants in general are becoming more educated and demanding of the working environment in which they plan to work. Tenants prefer sustainable, certified and state-of-the-art office space, which provides a high-quality work environment, as well as reduced management and utility costs, transformation capabilities, a healthy and safe working environment, and advanced building management systems.

Keywords: Office space, Evaluation, Real Estate.

**JEL Classification:** R2

# BEEKEEPING – AN IMPORTANT ELEMENT FOR SUSTAINABLE DEVELOPMENT OF CITIES

## Tsvetelina NIKOLOVA<sup>1</sup>, Milena YORDANOVA<sup>2</sup>

<sup>1,2</sup> University of Forestry, Sofia, Bulgaria
Corresponding author's e-mail: <u>c.alipieva@abv.bg</u>

**Abstract.** The article presents the results of a scientific project pursuing an alternative to traditional beekeeping, enabling the cultivation of Apis mellifera in urban settings. In Bulgaria, beekeeping is a traditional activity in all areas of the country. Sofia is a good and preferred bee-growing city. About 200 beekeepers have been raising their bees within the city over the last two years. One of the aims of the project is to trace and prove that the urban environment is suitable for growing bee families and the production they produce is fit for human use. For this purpose, 10 bee families were used in different populated areas. The influence of the urban environment on the development of bee families, their strength and honey productivity is monitored. The results we have obtained provide opportunities to promote urban beekeeping and prove that bee families are developing well in urban settings.

**Keywords**: Apis mellifera, Honey bee, Environmental conditions, Pollution, Urban environment, Urban beekeeping.

JEL Classification: O13, Q15, R19

# REGIONAL INNOVATIVE SYSTEM DEVELOPMENT: INSTITUTIONAL BARRIERS AND INCENTIVES

## Maria TERESHINA<sup>1</sup>, Tatjana TAMBOVCEVA<sup>2</sup>

<sup>1</sup> Kuban State University, Krasnodar, Russian Federation
<sup>2</sup> Riga Technical University, Riga, Latvia
Corresponding author's e-mail: mwstepanova@mail.ru

**Abstract.** The purpose of the study was to develop an explanatory model of institutional design effective regional innovation system. For identification of actors, mechanisms, factors, processes and results of innovation and institutions of innovative regional space, the authors have developed a comprehensive methodology that combines economic, mathematical and sociological (interview, expert methods and case studies) methods. The object of the empirical study was Krasnodar Krai. As a result, the authors propose an institutional model of regional innovation system, which is a combination of different organizational structures, each of which has certain resources and perform specific functions. It is shown that the internal architecture of the model can generate positive effects such as innovative products and services, developed innovative competence, etc. However, if there are barriers in the institutional structure, negative effects are created. The incentives and barriers of innovations in the regional economic space were identified and characterized. It was proved that an effective strategy for the formation and development of a regional innovation system based on internal sources of development, implies a sustainable system of spatial-network interactions of all participants in this process that go beyond the boundaries of the economy or the type of the involving organizations. One of the results of the empirical study is to identify "green" (environmental) innovation as important drivers of innovative process of modern regional socio-economic systems, the impact of which is associated with their ability to create incentives for innovative processes (technological, product, service, organizational, marketing, institutional and social) in other sectors and the system as a whole

**Keywords**: Regional innovative system, Innovation, Institutional design, Development barriers, Development incentives

JEL Classification: O31

The research was carried out with the support of the RFBR project No 18-410-230028 Institutional design of Krasnodar Region's innovation system: capacity development, neutralization of risks and threats.

# ENVIRONMENTAL AND AGRO-TECHNOLOGICAL ASPECTS FOR GROWING AGRICULTURAL PRODUCTION IN AN AGGRAVATE URBAN ENVIRONMENT

## Elena TSVETKOVA<sup>1</sup>, Vera PETROVA<sup>2</sup>, Milena YORDANOVA<sup>3</sup>, Tsvetelina NIKOLOVA<sup>4</sup>, Tatjana TAMBOVCEVA<sup>5</sup>

1-4 University of Forestry, Sofia, Bulgaria

<sup>5</sup>Riga Technical University, Riga, Latvia

Corresponding author's e-mail: etsvetkova@ltu.bg

Abstract. The article presents results of a scientific project focused on studying the opportunities for using urban agriculture to improve the environment and meet the needs of fresh produce in the town Sofia. The object of research is the output of good quality agricultural produce on unoccupied spaces and in particular roofs of buildings. The influence of the urban environment on the quality and quantity of the outputs of agricultural production has been established by testing different technologies when growing a range of crops and breeding of bees. The obtained data and results give opportunities for increasing public awareness of the benefits of urban agriculture, which is leading to environmental improvements and meeting the needs of fresh produce in large cities, and for sustainable and integrated development of urban areas, based on European policies related to increasing Europe's green infrastructures and natural capital. The used methodology showed its applicability and possibility for comparative analyses for most major cities in Bulgaria.

Keywords: Agricultural production, Environmental conditions, Pollution, Urban environment.

JEL Classification: O13, Q15, R19

## **SUBSECTION**

# "BUSINESS ENGINEERING, ECONOMICS, FINANCE AND MANAGEMENT"

# INCREASING TRENDS OF TOURIST FLOWS FROM THE EUROPRAN COUNTRIES TO GEORGIA

## Nino ABESADZE<sup>1</sup>, Rusudan KINKLADZE<sup>2</sup>, Nino PARESASHVILI<sup>3</sup>

<sup>1,3</sup> Tbilisi State University, Tbilisi, Georgia

<sup>2</sup> Georgian Technical University, Tbilisi, Georgia

Corresponding author's e-mail: <a href="mailto:ninka\_abesadze@yahoo.com">ninka\_abesadze@yahoo.com</a>

**Abstract**. At the modern stage of the economic development, tourism is an important source of development and increased economic welfare of Georgia. Tourism is developing in Georgia and it is the fact that the exemption of visa limitations has had an important impact on the growth of tourist flows. It may be assumed that significantly increased flows of EU citizens to Georgia in recent years are an immediate result of the liberal visa policy.

*Research methodology*: methods of statistical observation, grouping and analysis were used in the research process. The graphical expression method is widely used.

*Results*. The number of total visitors to the country and that from the European Union increases annually and the percentage ratio of the visitors from the EU in the total number of visitors is increasing consequently.

As the data of 2018 suggest, the visits to Georgia for 72.9% of the international visitors were recurring, while 27.1% of the visitors were on their first visit in Georgia. Visits from the EU are most common in the III quarter of the year, i.e. in summer. EU visitors are mostly from Poland, Germany, UK, France, Lithuania and other countries. Most visitors are of the 26-35 age group. Most visited site is Tbilisi.

### Conclusions:

- The number of both, total visitors of the country and the number of visitors from the EU
  increase annually and the percentage ratio of the visitors from the EU in the total number
  of visitors increases as well.
- The visits from the EU show a generally increasing trend, with the greatest increase fixed in 2018 as compared to the previous year.
- Men dominate among the international visitors. The EU countries show a similar regularity.
- As of the age categories, 31-50 age group dominates among the international visitors and 26-65 age group dominates among the EU visitors.
- A leading country with most number of visits from the EU is Poland.
- The degree of satisfaction is high, with only 1.7% of the international inbound visitors being discontent.

Keywords: Tourist, EU, Trend, Statistics, Analysis

JEL Classification: C1

## THEORETICAL APPROACH TO RESEARCH TRENDS OF BUSINESS CONTINUITY ASSESSMENT: CONTENT AND BIBLIOMETRIC MAPPING ANALYSIS

## Diana ALEKSANDROVA<sup>1</sup>, Irina VORONOVA<sup>2</sup>

<sup>1,2</sup> Riga Technical University, Riga, Latvia
Corresponding author's e-mail: <u>irina.voronova@rtu.lv</u>

Abstract. Business continuity can be considered in various dimensions of the organization: environmental protection, information security, personnel management, crisis management, etc. The authors conducted a bibliometric and contextual analysis of the scientific literature, which identified the three most common dimensions of the usage of term *business continuity* - auditing, management and disaster. The analysis of the dynamics and structure of the business continuity terminology was carried out from August to September 2019 on the basis of *Scopus* and *ScienceDirect* databases, using both the analytical resources of that platform and the qualitatitive data analysis software package like *VOSviewer* and *Nvivo*. This paper shows an assessment of the temporal dynamics of scientific results, as well as the spatial and institutional distribution of publications from 1987 to 2020, and the thematic focus of research based on bibliometric and contextual analysis. The authors implemented the clustering on the basis of one hundred most frequently cited articles in order to create and examine semantic relations. This study shows the possibilities of using various programs to achieve a deeper analysis of scientific publications.

**Keywords**: Bibliometric analysis, Content analysis, Business continuity, Going concern, Disaster recovery, Clustering, NVivo, VosViewer.

JEL Classification: C18, C38, A1

# PUBLIC PROCUREMENT OF INNOVATION: SELECTION OF THE SUSTAINABLE ALTERNATIVE

## Viktorija BABICA<sup>1</sup>, Deniss SCEULOVS<sup>2</sup>

<sup>1,2</sup> Riga Technical University, Riga, Latvia

Corresponding author's e-mail: deniss.sceulovs@rtu.lv

**Abstract**. The European Union has been highly emphasizing the role of public procurement for innovation as a policy instrument that can be used to stimulate sustainable development. This development reflects and responds to improvements in social welfare, growth both of entrepreneurship and national competitive advantage. In the process of selection the awarding tender public procurement institutions lack of overall approach of choosing the most advantageous and sustainable innovation alternative. To contribute to purchasing of innovative solutions, this paper elaborates a framework of innovation measurement and quality evaluation. Thus it makes possible to assess proposals from different aspects and to choose the most valuable offer notwithstanding the lowest price criteria.

This paper studies the concept of public procurement, it's pitfalls and prospects, dimensions of innovation definition and innovation added value assessment. Have been conducted expert interviews, which were analyzed with AHP method in order to set the most appropriate evaluation criteria indicator. A framework for assess the quantitative and qualitative value of innovation proposals has been designed. The proposed approach is based on an analysis of innovation added value, its potential for impact and the sustainability of the changes it produces.

**Keywords**: Best tender, Innovation, Innovation evaluation, Public procurement, Public procurement of innovation, Sustainable innovation, Quality criteria.

JEL Classification: O31, O39

# FRAMEWORK PRESENTING THE IMPACT OF BOARD CAPITAL ON INTERNATIONALIZATION OF SMES: INITIAL THEORETICAL CONSIDERATIONS

## Monika BUŽAVAITĖ<sup>1</sup>, Renata KORSAKIENĖ<sup>2</sup>

<sup>1,2</sup>Vilnius Gediminas Technical University, Vilnius, Lithuania Corresponding author's e-mail: monika.buzavaite@vgtu.lt

**Abstract**. This study aims to present the impact of board capital on internationalization of SMEs, considering the *moderating* effect of SME's development stage and informal training. Research model consists of four main constructs: board capital, internationalization, SME's development stage and informal training. Board capital construct is a combination of human and social capital of the directors, which could be expressed through following factors: director's expertise, experience, knowledge, reputation, skills, and network relationships with other firms or other valuable connections. Dependent variable - internationalization is measured by scope and scale of internationalization and a total number of operation modes. Moderating constructs - SME's development stage and informal training accordingly are indicated by early or late-stage and organizational learning capability, training and development, human resource practices, the ratio between skilled and unskilled workers. The model lets us formulate future research directions.

**Keywords**: Board capital, Development stage, Framework, Internationalization, Informal training, Model, SMEs.

**JEL Classification:** M10, M13, M16, M19

## ACTIVITIES OF RETAIL CHAINS IN THE FRAMEWORK OF COMPETITION POLICY: STUDY CASE: REPUBLIC OF MOLDOVA)

### **Anatolie CARAGANCIU**

Lucian Blaga University of Sibiu, Romania
Corresponding author's e-mail: anatol.caraganciu@ulbsibiu.ro

**Abstract**. The identification, analysis and sanctioning of cases of infringement of the regulations of the competition law presents a complex process, in which the particularities of the companies involved as well as the global situation on the relevant market are identified. The analysis of the impact factors in the study of the infringement cases determines the effects that they have on the competitive environment as well as on the final consumer. The article presents the analysis of the situation in retail networks and the effects of the measures taken by the competition authority. The analysis is based on real cases on the Moldovan market, but the conclusions are applicable to the common situations of retail networks.

**Keywords**: Competitive environment, Dominant position, Remedies, Merger effects, Infringement cases.

JEL Classification: K2, K4

## SECURING REGIONAL DEVELOPMENT

## Mohammad CHEHABEDDINE<sup>1</sup>, Manuela TVARONAVICIENE<sup>2</sup>

Vilnius Gediminas Technical University, Vilnius, Lithuania

Corresponding authors' e-mail: Mohamad.chehab-eddine@vgtu.lt,

manuela.tvaronaviciene@vgtu.lt

**Abstract.** Regional Development is linked to Sustainability and also, Development is linked to Security, both nationally and globally. The expanded view of Security has opened the discussion of new technologies introduced non-traditional threats that become vulnerable to regional security and thereby to regional development. Five broad types of situations or premises that constitute a security in which threats overlap and interact, those new threats warrant new security paradigms that traditional international relations ignored so far. The purpose of this research is to analyses and study the impact of these new threats to security and how they affect regional development. Protection to the digital ecosystem and critical infrastructure from threats could be by implementing the security program of Governance, Risk, and Compliance (GRC), however, awareness, preparedness, and resilience of societies with the international community are as key preconditions of further secure and sustainable economic development and general well-being. Case studies of new technologies that threaten global societies economically and socially.

**Keywords:** Critical Infrastructure, Cyber Security, Digital Ecosystem, Regional Development, SDGs (Sustainable Development Goals), New Technologies, STEM (Science, Technology, and Engineering, and Mathematics), Sustainable Development, Trans-state threats.

JEL Classification: D83, O18, Q56

# DECREASE OF ENVIRONMENTAL POLLUTION FROM THE PRODUCTION WASTE BY IMPLEMENTATION OF CIRCULAR ECONOMY ELEMENTS

## Vladimirs CUDEČKIS<sup>1</sup>, Natālija CUDEČKA-PURIŅA

<sup>1</sup>Riga Technical University, Riga, Latvia <sup>2</sup>Liepaja University, Liepaja, Latvia

Corresponding author's e-mail: natalija.cudecka@inbox.lv

**Abstract**. In the period of economic growth and the development of the production, the volume of production waste increases as well. This type of waste possesses a range of technogenic risks and might result in being hazardous.

In order to maximize the safety of the environment and the population, it is necessary to secure the processing (recycling/recovery) of this type of waste as close as possible to source of generation. Given the latest trends in science on the revision of the general attitude towards waste as such - in particular, the circular economy offers considering waste as resources, the authors suggest entities to evaluate the possibility of using production waste either for processing with additional added value or as by-products for which further a demand can be found in terms of a totally new product, thereby differentiating the product range of an entity, or the authors also suggest considering the third option - use and implementation of industrial symbiosis - when waste or by-products of one entity becomes raw material for another.

The authors propose to divide the entire stream of production waste into: household equivalent waste, which is collected separately and constitutes commercial value; residues from the technological process that can easily be used again in production; and currently non-recyclable waste that is being accumulated and is of maximum hazard (fire, pollution etc.). Within the research, particular attention is paid to the third type of waste stream. The authors provide examples when due to small volumes or irregular demand of this type of waste it is not economically efficient to get best application of this type of waste or to turn it into resources. The solution, as considered by the authors, can be found in enhancing the inter-sectoral cooperation, including government, municipalities, entities and society and in the implementation of the industrial symbiosis.

**Keywords:** Circular economy, Industrial symbiosis, Safety of technogenic environment, Waste management.

JEL Classification: Q001, Q5, K32

## VĒRTĪBU MIJIEDARBĪBA AR PATĒRĒTĀJU IZVĒLI IETEKMĒJOŠIEM FAKTORIEM

### **Enno ENCE**

Riga Technical University, Riga, Latvia

Corresponding author's e-mail: enno.ence@edu.rtu.lv

**Abstrakts.** Pasaule strauji mainās dažādos tās aspektos: gan ģeopolitiki, gan tehnoloģiju jomā, tā kļuvusi globāli sasniedzamāka, ietekmējot cilvēku ikdienu. Mainās paaudzes, to paradumi un to vērtības, tādēļ uzņēmējiem nepieciešams pārskatīt zīmolu pārstāvētās vērtības un metodes, komunikāciju ar esošo un nākotnes patērētāju.

Pētījuma zinātniskais mērķis ir apskatīt vērtību definīcijas, noteikt, kādi faktori ietekmē patērētāja izvēli un analizēt vērtību un izvēles ietekmējošo faktoru mijiedarbību. Lai sasniegtu pētījuma mērķi, tiek izmantota triangulācijas metode, kas balstīta sistemātiskajā literatūras pārskatā (literature overview), ekspertu diskusijās un, balstoties uz biznesa piemēriem (case study).

Darba ietvaros tiek apkopotas un analizētas dažādas vērtību definīcijas, noteikti faktori, kuri ietekmē patērētāja izvēli un tiek pētīta vērtību un izvēles ietekmējošo faktoru mijiedarbība. Autors attiecina dažādu vērtību definīcijas un to izstrādes laiku pret vecuma grupām, paaudzēm un konstatē, ka paradumi un ietekmes faktori ir būtiski mainījušies, kas jāņem vērā arī uzņēmējiem, izstrādājot zīmolu, veidojot produktus un komunikāciju ar patērētājiem. Autors secina, ka tādi izvēli ietekmējoši faktori kā vide un personīgie faktori, kas sastāda 57% no ietekmes faktoru rādītājiem, ir mainījušies līdz ar paaudzēm, kā arī pietrūkst jaunu pētījumu par jaunāko paaudžu paradumiem un vērtībām faktoriem, kas nosaka nākotnes patērētāja uzvedību, paradumus un izvēles.

Secinājumi: radot ilgtspējīgus zīmolus jāfokusējas uz jauno paaudzi, nākotnes patērētāju un ilgtspējīgai biznesa attīstībai jau tagad jānosaka nākotnes vērtības un patērētāju izvēles ietekmējošos faktorus.

Atslēgas vārdi: vērtības, zīmola vērtības, faktori kas ietekmē vērtību veidošanos, marketings.

JEL klasifikācija: D91, M31

# THE REVIVAL OF PROTECTIONISM IN THE MODERN WORLD: CAUSES AND CONSEQUENCES

## Regina GAYNULINA

Riga Technical University, Riga, Latvia
Corresponding author's e-mail: regina\_gaynulina@mail.ru

**Abstract. Aim**: Since the publication of The Wealth of Nations by Adam Smith, in which market-based economy free from government interventions was systematically defensed, economics and philosophy have mostly parted ways, culminating in a clear distinction between how most economists and philosophers view the global economic order. Although it is now clear that trade liberalization, unlike protectionism, paves the way for economic development, many still argue that the countries are better off implementing protectionist measures. The aim of the work is to identify and reveal the features of new protectionism in the context of globalization of the world economy and the related contradictions and to provide recommendations for Uzbek authorities based on the empirical findings.

**Methods**: the effect of newly introduced liberalization policy was analyzed through in-depth interview with the country's scholars, businessmen and economists. Additionally, a correlation analysis was performed to compare Uzbekistan's economy expansion (based on GDP figures, unemployment rate, FDI inflow and other factors) to the amount of protective or liberalizing measures implemented in the country.

**Results**: Investigated correlations show the interrelation of trade freedom and foreign direct investment flows. The statistical analysis demonstrated that protectionism has a negative impact on FDI as well as on the unemployment rate, which is one of the main indicators of a country's prosperity. The findings from the interview support the hypotheses that not only do barriers to trade not boost the improvement of performance in the protected sector but also promote corruption and push aside the foreign direct investment, which in turn slows down the economic growth in general and holds back the technological advancement needed to pursuit market competitiveness in particular.

Conclusions: From the conducted research it is clear, that the negative consequences of protectionism can take at least two different forms: the first one directly concluding to a loss of national wealth and the second one emphasizing the harm of wealth redistribution when it moves from the poorer to the wealthier within the society. After gaining the independence, Uzbekistan authorities made a decision not to change the trade policy very rapidly, as it could result in a significant economic downturn, namely in the dramatic increase in the unemployment rate and inflation. In fact, this decision made the country the economic leader among other post-soviet states. However, this background is the main prerequisite of country's protectionism, later resulted in a long stagnation of the economy. Since the 2016 reform aimed at trade liberalization the country is facing a steady economic growth and is expected to be improving further.

**Keywords**: Protectionism, Free-Trade, Foreign Direct Investment, Competition, Trade Barriers, Uzbekistan.

**JEL Classification:** E6

## RISK ASSESMENT AND QUANTIFICATION IN MANUFACTURING ENTERPRISE

#### **Ivars GODMANIS**

RISEBA University of Applied Sciences, Riga, Latvia

Corresponding author's e-mail: <a href="mailto:ivars.godmanis8@gmail.com">ivars.godmanis8@gmail.com</a>

**Abstract**. In this research first time in Latvia a multidimensional risk assessment is carried out in the manufacturing enterprise in the pharmaceutical industry according to the only international risk management standard ISO 31000 -2018.

The key multisided risks were identified and prioritized in the manufacturing pharmaceutical enterprise by applying common metrics method: obtaining evaluations of risk occurrence and impact severity, made by the two highest levels of enterprise management (Board and senior line managers).

TOP 20 of key risks was created from identified 64 different risks and the convergence and differences between the risk rankings, evaluated by enterprise's Board and senior line management were obtained and analyzed.

The main conclusion is that manufacturing enterprises in pharmaceutical industry have specifics regarding exposure to multisided risks, where the main, key risk is regulatory risk and not different financial risks.

Different ranking of enterprise operational risks, investment assessment risks, technological innovations risks made by enterprise Board and senior line managers are signalling that exactly in these directions of enterprise's business activities is necessary to review the strategic and operational planning with the aim to mitigate the potential risk impacts.

**Keywords**: International risk management standard, Multisided risks, Regulatory risk, Risk occurrence and severity

**JEL Classification:** G32

# THE INFLUENCE OF THE TRANSFORMATION OF THE CONSUMER DEMOGRAPHIC PROFILE ON NEW PRODUCT DEVELOPMENT

### Ilze JANKOVSKA

Riga Technical University, Riga, Latvia
Corresponding author's e-mail: <u>ijankovska@gmail.com</u>

**Abstract**. The relevance of this paper is based on the analysis over the last decade of the demographic profile transformation in Latvia, taking into account ageing population, the growing influence of the Latvian business potential, focus on the new product development. The definition of the product itself will be examined in order to create a projection of the new product value potential for the next decade. The hypothesis behind the paper is analysed from perspective of time. Time has become the core product value about which modern consumer is ready to pay for. Thus, it puts the product definition in question in the context of the developing information technologies, uncontrolled growth of information streams, of which both had an effect on the paid product perception.

Hence, the most important question is: what is value proposition of the product or service perceived and valued by the modern consumer?

**Keywords**: Consumer, Demographic, Development, New Product, Profile, Transformation, Value Proposition

**JEL Classification:** J10

# BRANDING ONLINE 1999 VS 2019: CASE STUDY ON AMAZON.COM

## Guna JANUŠEVSKA

Riga Technical University, Riga, Latvia
Corresponding author e's-mail: Guna.Janusevska@edu.rtu.lv

**Abstract**. The study explores the case of *Amazon.com* branding strategy before twenty years and now. The aim of the study is to find out, how one of the online sales pioneers *Amazon.com* has achieved its brand awareness and gained customers' loyalty through its online efforts in 1999 and in 2019. Both secondary and primary data, e.g., direct observation of company's website and questionnaire to company's customers, are analyzed. This enables researcher to develop conclusions how *Amazon.com* branding on the web has changed within two decades as well as how the concept of branding on the web per se has changed if ever. The analysis done leads the author to conclude that still branding on the web is just somewhat different from the branding in conventional markets. The main argument for this conclusion is that brand is in the mind of consumers and it is hard to change. Moreover, branding is about providing outstanding customer experience (in the case of *Amazon.com* it is vast product selection, reasonable prices and personal treatment of customer), does not matter whether online or offline, twenty years earlier or now.

However, the main difference in branding on the web is technology-enabled ways of building customer community. Surprisingly, the technology advancement satisfies the need of socializing for customers, which was popular way to attract consumers in 19th century. Nowadays socializing is still important need of customers, though the ways and expectations of socializing has changed.

Keywords: Amazon.com, Brand awareness, Branding, Brand loyalty, E-commerce

**JEL Classification:** L81, M30

## **EXCISE DUTY GAP ON ELECTRONIC CIGARETTES**

## Māris JURUŠS<sup>1</sup>, Zane Utināne<sup>2</sup>

<sup>1,2</sup> Riga Technical University, Riga, Latvia
Corresponding author's e-mail: Maris.Juruss@rtu.lv

**Abstract**. Smoking causes huge damage on human health, so it must be fought effectively. This also refers to new types of tobacco products, such as electronic cigarettes. In recent years, electronic cigarettes have become increasingly popular in the world, although in Latvia it is still a niche product, taking up approximately 3% of the tobacco market. Electronic cigarettes are also subject of excise duty. However, this tax is not harmonized yet and it is therefore difficult to levy it in the EU. In addition, many EU countries (including the Czech Republic, Denmark, Germany, the Netherlands, Ireland, Norway, Slovakia, the United Kingdom, Sweden) allow electronic cigarette sales on the Internet. Although it is forbidden in Latvia, the products consumed in Latvia are currently also purchased in this way. Needless to say, in these cases no taxes are paid to Latvia and there is really no opportunity to ensure the buyer's age control. This is also confirmed by the calculation of the excise duty gap for electronic cigarettes in Latvia. Quite similar situation is also in other countries. Despite the ban in Australia, 600,000 australians has had access to this product. The ban has resulted in the black market of nicotine over the internet and "under the counter" and prevented any sensible regulation of electronic cigarettes to reduce risks to consumers (Wayne Hall, 2015). Moreover, since New Zealand has made legal access to purchase and use of electronic cigarettes in 2018, it has made availability for australians to purchase electronic cigarettes on the internet, thus creating illegal market of electronic cigarettes (Karp, 2019). The prevalence of smoking is also regularly assessed in Latvia through a health behaviour survey (Center for Disease Prevention and Control, 2018), where only 1.4% said, that have used electronic cigarettes more frequently. However, a comparison of these data with those of the legal market using the top-down method an excise duty gap can be assessed. This method makes it possible to assess the potential tax base and the losses from illegal trade (Jurušs, Šmite-Roke, & Gasūne, 2018). Using this method, it can be found that about 44% of electronic cigarettes are consumed illegally. The Health Survey focuses on finding out people's habits, but unfortunately it does not analyze the illegal market and its spread. It would be desirable to improve the methodology of this survey to include specific questions about electronic cigarettes and their acquisition, in order to better identify illegal market trends and to think about ways to restrict it. Without action to combat the illegal market, neither excise policy nor restrictions on trade will work, on the contrary, it will only distort the market and will also lose much of the already insignificant tax revenue from these products. Statistics of electronic cigarettes shows that prevalence in countries where this product is implemented, is low, so there is no need to take some radical steps in taxation of these products, because there is a possibility that there would be no positive effect.

**Keywords**: electronic cigarettes, illegal market, taxation, excise duty gap

**JEL Classification:** H26

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# MODERN WAYS OF WORKING: COMPARING RESULTS OF TWO PILOT STUDIES

#### Ieva KALVE<sup>1</sup>, Sebastian CAPOTESCU<sup>2</sup>

<sup>1</sup>Riga Stradins University, Riga, Latvia <sup>2</sup>GreenForest S.R.L., Timisoara, Romania Corresponding author's e-mail: ieva.kalve@rsu.lv

Abstract. This article provides a concise look into the theoretical basis and two small pilot studies which are done to serve as the beginning of a further research collaboration, and have been done in 2019 in service industry companies in Riga (Latvia) and Timisoara (Romania). The objective of these studies was to find the respondents' knowledge about new ways of working (full or partial remote work, co-working spaces, etc.), as well as their personal fit with these types of work, among other questions. Results of these studies show that there is a significant difference between theory, respondent answers, and the actions of their organizations. Main recommendations: there is no single correct approach; it has to be aligned with the business strategy and the actual work specifics of various departments or positions in the company. Problems faced by the workforce must also be taken into account, instead of aiming to decrease office costs as much as possible, by creating hotdesking or other similar open office layouts.

**Keywords:** Office design, Remote work, Service management, Strategic management, Workplace

**JEL Classification:** M51

### CILVĒKKPITĀLA ATTĪSTĪBU KAVĒJOŠIE FAKTORI LATVIJĀ

### Līga KAMOLA<sup>1</sup>, Tatjana CELMIŅA<sup>2</sup>

<sup>1,2</sup> Riga Technical University, Riga, Latvia
Corresponding author's e-mail: Liga.Kamola@rtu.lv

Cilvēkkapitāls ir cilvēka spēju un iemaņu kopums, no kura atkarīgs viņa ekonomiskās un sociālās aktivitātes potenciāls. Cilvēkkapitāla definīcijās parasti akcentē indivīda izglītību, iemaņas, prasmes un zināšanas, kas palielina viņa ekonomiskās darbības produktivitāti, tomēr šā jēdziena saturs ir daudz plašāks. Cilvēkkapitāls ietver gan tehniskās, gan sociālās iemaņas. Cilvēkkapitāla attīstība nodrošina gan paša indivīda izaugsmi un ekonomisko stabilitāti, bet arī rada sabiedrībai un valstij labklājību, veidojot pozitīvo pievienoto vērtību.

Latvijai, kurai praktiski cilvēkkapitāls ir galvenais resurss, tā jāpievērš vislielākā uzmanība. Kaut gan pēc neatkarības atgūšanas izglītības, veselības u.c. jomās notikušas dažādas izmaiņas, tomēr šis jautājums ne tuvu nav atrisināts.

Viens no cilvēkkapitāla veidošanās priekšnosacījumiem ir veselības aprūpe, tādēļ mūsdienās veselības kvalitāte ir ļoti nozīmīga, jo kļūst par vienu no tautsaimniecību attīstību ietekmējošiem faktoriem. Iedzīvotāju veselības kvalitāti var analizēt vairākos aspektos: iedzīvotāju dzīves ilgums; iedzīvotāju veselības stāvoklis; iedzīvotāju reproduktīvās veselības kvalitāte u.c.. Tostarp arī izglītība ir cilvēkkapitāla kvalitāti paaugstinošs rādītājs – jo augstāks ir iedzīvotāju izglītības līmenis, jo tie ir zinošāki, procesus labāk izprotoši un spēj radīt produktus ar augstāku pievienoto vērtību un/ vai izmantot labākas darba metodes. Cilvēkkapitāla vērtību lielā mērā nosaka iespējas to izmantot. Potenciālo darba resursu daudzumu valstī ietekmē demogrāfiskā situācija, tad to kvalitāti izglītības sistēma, bet tās izmantošanu nosaka iedzīvotāju materiālais stāvoklis, cilvēku motivācija, vērtību sistēma, kā arī valsts atbalsts. Kvalitatīva izglītība ir labākais veids, kā cilvēkus sagatavot veiksmīgai karjerai, kas balstās uz zināšanām, prasmēm un kompetencēm, lai spētu konkurēt darba tirgū. Tātad svarīga ir izglītības ekonomiskā atdeve jeb iegūto zināšanu un prasmju atbilstība darba tirgus prasībām.

Valstiskā līmenī, ja netiek nodrošinātas investīcijas izglītības, veselības, sociālo garantiju sistēma, tad tie var kļūt par nozīmīgiem cilvēkkapitāla attīstības kavējošiem faktoriem, jo netiek nodrošināta atbilstoša vide cilvēku un valsts attīstībai. Tāpēc cilvēkkapitāla izaugsme ir atkarīga no valsts ieinteresētības investēt tā attīstībā. Investējot arvien vairāk un pārdomāti līdzekļu cilvēkkapitāla attīstībā arī valsts ekonomiskā izaugsme ir pieaugoša. Ir svarīgi atrast veidu, kā cilvēkus piesaistīt valstij un noturēt uz palikšanu, lai būtu resursi, kuros ieguldīt līdzekļus, lai attīstītu pašu cilvēkkapitālu un veicinātu tā konkurētspēju citu valstu vidū.

Atslēgvārdi: cilvēkkapitāls, attīstība, investīcijas, konkurētspēja

JEL Classification: E24, J24, O15

# UZŅĒMĒJDARBĪBAS POZITĪVO FINANŠU REZULTĀTU (PEĻŅU) IETEKMĒJOŠIE FAKTORI DIGITALIZĀCIJAS LAIKMETĀ

### Ludmila KASPEROVIČA<sup>1</sup>, Natalja LĀCE<sup>2</sup>

<sup>1, 2</sup> Rīgas Tehniskā Universitāte, Rīga, Latvija

Corresponding author's e-mail: <u>ludmila.kasperovica@rtu.lv</u>

Pētījuma mērķis ir atklāt aktuālos, dominējošos, peļņu veicinošos faktorus mainīgajā biznesa vidē. Lai konceptuāli izprastu faktorus, tika veikta zinātniskās literatūras avotu kvantitatīvā un kvalitatīvā apskate. Literatūras analīzes gaitā tika izveidotas 28 kategorijas, kuras atspoguļo faktorus, ko autori uzsvēra par nozīmīgiem veidojot ilgtspējīgu, pelnošu biznesu. Atlasītās kategorijas, autori analizē caur biznesa modeļa (BM) prizmu un attiecina tos vai uz BM kopumā, vai uz tā dimensijām — vērtības piedāvājuma elementiem (produktu, realizācijas kanāliem, cenu politiku un klientu komunikāciju), vai uz vērtības izveides dimensiju. Pētījuma rezultātā tika secināts, ka izveidot dzīvesspējīgu un pelnošu BM digitalizācijas laikmetā ir iespējams tikai visu BM elementu mijiedarbībā. Būtiski ir atklāt katra BM elementa nozīmi, lai savlaicīgi atteiktos no veciem, vairs nepelnošiem vērtības elementiem un atbilstoši samazināt vērtības ķēdes izveides rezultātā izmantotos resursus, kas izraisa liekas izmaksas.

Literatūras avotu kvalitatīvās analīzes rezultātā tika atklāti dominējoši faktori, kas veicina uzņēmējdarbības pozitīvo finanšu rezultātu (peļņu) digitalizācijas laikmetā:

- 1. Pētniecība. Izmantot pētniecību, lai savlaicīgi atklātu BM attīstības iespējas vai revolucionāro/graujošo tehnoloģiju ietekmes.
- 2. Digitālais briedums. Savlaicīgi atzīt nepietiekamo kompānijas digitālo briedumu, kas lauj īsākā laikā ar mazākām izmaksām veikt BM digitālo transformāciju.
- 3. Izmaksu samazināšana. Izmaksu samazināšanas rezultātā, nodrošināt apgrozījuma pieaugumu, nevis tikai īslaicīgo peļņas palielināšanu.
- 4. Izmaksu struktūra un cenu politika. Ieviešot jaunus, tirgus pieprasītus produktus, pārskatīt izmaksu struktūru un izveidot atbilstoši jaunajām izmaksām sabalansētu cenu politiku.

Apkopojot un uzkrājot minēto informāciju var izveidot peļņas pārvaldīšanas modeli, lai sniegtu atbalstu uzņēmumiem strauji, mainīgos apstākļos, it īpaši mazā un vidējā biznesa sektorā.

Atslēgvārdi: Digital transformation, Disruptive innovation, Pricing Strategies, Profitable business model, Service-dominant logic, Service platform.

JEL Classification: G3, G30

# INDUSTRY 4.0 AS THE DRIVING FORCE OF SMES INTERNATIONALIZATION: A CASE OF LITHUANIA

## Kristina KOVAITĖ<sup>1</sup>, Paulius ŠŪMAKARIS<sup>2</sup>, Jelena STANKEVIČIENĖ<sup>3</sup>, Renata KORSAKIENĖ<sup>4</sup>

Vilnius Gediminas Technical University, Vilnius, Lithuania

Corresponding author's e-mail: kristina.kovaite@vgtu.lt

**Abstract.** Small and medium sized enterprises (SMEs) are assumed to be one of the key contributors of country's economic growth and social welfare. Thus, their internationalization appears to be inevitable considering how globalization processes have changed the rules of competition in the last few decades. Smart and digitalised technologies (Internet of Things and Services, etc.) decentralise communication and provide the opportunities for SMEs to access international markets through co-creation business models and changes of the value chains. The paper aims to analyse and disclose how the fourth Industrial revolution (Industry 4.0) influences SMEs' internationalisation. The research is grounded in the research of extant scientific literature and assessment of experts. The research demonstrates that Industry 4.0 despite emerging risks positively influences internationalization of SMEs on a number of dimensions. The recommendations for managers and policy makers how to foster internationalization of SMEs are suggested.

**Keywords**: SMEs internationalization, Smart and digitalised technologies, Risk assessment, Business model, Industry 4.0.

**JEL Classification:** F0, C80

# DISCOURSE ANALYSIS OF MODERN MASCULINITY IN ADVERTISING

#### **Toms KREICBERGS**

Riga Technical University, Riga, Latvia
Corresponding author's e-mail: toms.kreicbergs@rtu.lv

Abstract. This research paper focuses on discussing the discourse between consumers over modern masculinity as a phenomenon in three specific ads. The ads discussed in the paper are from brands that have focused on a new type of masculinity in their commercials, such as Dove Men Care, Lynx and Bonobos. According to the literature review, modern masculinity, which was the subject of this research, is associated with a display of fashion, culture, open mind, progress, forward-thinking, being sensitive and being brave enough to be whoever a man wants and be. While traditional masculinity, among other things, is associated with display of strength, power, bravery, sense of patriotism, decisiveness, dominance, heterosexuality and the role of breadwinner. However, the discourse analysis showed a slightly different perception of these phenomena, meaning that consumers are much more divided when it comes to discussing masculinity. This means that companies have to be careful in the way of how they portray men in their advertising in order to achieve positive awareness and in order for the message to resonate with the consumers.

Keywords: Advertising, Discourse, Masculinity, Modern

**JEL Classification:** M31, M37

# DETERMINING FINANCIAL EFFICIENCY OF HIGHER EDUCATION INSTITUTIONS

## Jekaterina KUZMINA<sup>1</sup>, Andris SARNOVICS<sup>2</sup>, Andris NATRINS<sup>3</sup>, Anda ZIEMELE<sup>4</sup>, Ennata KIVRINA<sup>5</sup>

<sup>1-5</sup>BA School of Business and Finance, Riga, Latvia

Corresponding author's e-mail: jekaterina.kuzmina@ba.lv

**Abstract**. Decision-making process as well as general management of the higher education institution is nowadays becoming more and more complex and complicated. Different stakeholders are introducing new requirements (sometimes controversial to each other), information flows are increasing their speeds, new technologies are getting more power. As a result of these changes management of the higher education institution requires modern tools and methods in order to insure sustainable development of the organisation and to meet different shareholders' interests and necessities. The authors have performed literature review and are able to claim that, on the one hand, there is an extensive research on the field of efficiency measurement and management of the higher education institutions, while on the other hand, the topic of financial health within this discussion is less covered. Only a few authors are seeing the necessity to discuss the issue, while financial health and financial performance are critical factors to insure sustainable development of the organization of any kind. Moreover, the authors of the current paper strongly believe that such factors as financial performance and financial efficiency should be considered in different types of high school ratings and rankings to provide better evaluation and comparison possibilities. The objective of the current paper is to cover the existing gap and to provide the management of the higher education institution with an acceptable financial efficiency measurement tool - financial health index - useful in the process of setting the institution's strategic goals, developing and implementing strategies, as well as performance measurement. The tool could also serve as a potential basis for comparison of different higher education institutions that should be discussed in the coming research papers. In order to achieve the research goal, the authors are using the methodology of Ratio Analysis in Higher Education developed by KPMG and Prager, McCarthy & Sealy, adjusting it to the current situation in Latvia selecting necessary and potentially sound financial criteria, determining their weight in the model based on experts' opinion.

Based on the research the authors could develop the model suitable for measuring financial efficiency of higher education institutions willing to implement the idea of sustainable business strategy. The authors would like to argue that the paper contributes to the fundamental discussion of evaluation tools and methods on the field of higher education institution management and allows to determine further questions for analysis and scientific discussion like inclusion of financial efficiency measurement in the ranking models for evaluation of higher education institutions on the country level.

Keywords: Higher education institutions; Financial health; Efficiency measurement

JEL Classification: G30; I23

# CORPORATE AGILITY: A POPULAR TREND OR WAY TO LONGTERM SUCCESS?

#### Jevgenijs LOCOVS

Riga Technical University, Riga, Latvia

Corresponding author's e-mail: jevgenijs.locovs@gmail.com

**Abstract**. The purpose of the article is to investigate and critically discuss the role, the level, the impact of corporate agility in both the daily operation and strategic development of the company. Scientific *aim* is to investigate whether corporate agility of the company has a direct positive effect on the whole corporate performance. *Methodology*: literature review, case studies and personal interviews were conducted.

Findings: On the basis of systematic literature overview and expert interviews several factors of the positive effect of the corporate agility on the corporate performance were detected. The daily operations of several large international companies were analyzed and improvements in agility was discussed. Research is based on presumption that there are different types of companies according to organization theories – bureaucratic, classical, and contingency based. The agility could be applied to companies with modern (contemporary) management approach.

The works and papers of the following authors served as a basis and scientific support for the current research: Rajasekhar, Brooks & Spillane, Cardoso et al, Dan-Asabe & Radosavljevic, Hofstede, L'huillier, Yao, Maasen, Kondalkar, Dailey, Gelfand et al, Mintzberg, Fiedler, Vroom, Appelbaum et al, Haneberg, Wouter et al, Sull, Erande & Verma.

Conclusions: The research's findings proved that *level of corporate* agility has a direct impact on the corporate performance. It affects both the internal and external environments. *The corporate agility of all departments has a direct positive impact on both supportive and primary activities.* It was determined that increase of the agility positively affects internal corporate atmosphere, improves communications, unites people by setting common goals and applying achievement oriented attitude. All mentioned above has an affirmative impact on the overall performance of the entity including satisfaction of the clients, financial results, strategic development, communication, including cross cultural, and crisis management. From research results it is obvious that in some areas (branches) corporate agility is a way to long term success.

Keywords: Corporate agility, Agile structure, Improve of performance.

JEL Classification: L26, M14, M21, O31

# EQUITY TYPE CHOICE FOR FINANCING ENTREPRENEURS IN LATVIA

### Anita MATISONE<sup>1</sup>, Natalja LĀCE<sup>2</sup>

<sup>1,2</sup> Riga Technical University, Riga, Latvia

Corresponding author's e-mail: <a href="mailto:matisone.anita@gmail.com">matisone.anita@gmail.com</a>

**Abstract**. The study presents the results of a study on reasons why and when Latvian Venture Capital funds (VCFs) provide quasi-equity instead of straight equity to companies. Previous research shows that in the case of straight equity VCFs provide more value-adding assistance to portfolio companies to help them to grow. Presumably, VCFs funded by public resources as it is in Latvia should be designed to provide most of the value-adding assistance. Instead of that less than half of all investments are provided as straight equity.

The researchers conducted a survey of 5 VCF managers regarding their transactions from 2010-2017.

The results show that several factors influence the choice of a particular financial instrument. Most important from them are an inability to agree on valuation of the company between VCF and owners of the company and market conditions and practices.

**Keywords**: Financial instruments, Mezzanine, Quasi-equity, Latvia, Venture capital

JEL Classification: G23, G24, G28

# SUCCESSFUL ARTIFICIAL INTELLIGENCE PROJECT IMPLEMENTATION

### Sanita MEIJERE<sup>1</sup>, Tatjana TAMBOVCEVA<sup>2</sup>

1,2 Riga Technical University, Riga, Latvia

Corresponding author's e-mail: sanita.meijere@rbs.lv

Abstract. The research is focus on how companies manage and should manage implementation of artificial intelligence (AI) / machine learning (ML) based predictive analytics solutions. What are the preconditions of successful implementations and lessons learned from failed cases. Research methods used for this paper are literature review, experiments, qualitative and quantitative surveys. As a result, Author suggests a model / framework to follow to manage a successful implementation of a predictive analytics solution. The main conclusion is that new IT initiatives (predictive analytics to some extent is an IT project) should undergo classical change management steps similarly as any other business process change initiative. Author recommends the companies to devote enough time, human and other necessary resources for preparation and execution of predictive analytics solutions` implementation. The goal should be clearly defined and measurable, communication, business process change should be planned as well. Training is important step as well.

**Keywords**: AI (artificial intelligence), Business processes, ML (machine learning), Management, Optimization, Predictive analytics.

JEL Classification: C8, D80

### SUSTAINABLE MANAGEMENT FOR GREEN COMPETITIVENESS: A SCIENTIFIC REVIEW

### Nour NASSAR<sup>1</sup>, Manuela TVARONAVIČIENĖ<sup>2</sup>

<sup>1,2</sup> Vilnius Gediminas Technical University, Vilnius, Lithuania Corresponding author's e-mail: nour.nassar@vgtu.lt

**Abstract.** We cannot use the same old mentality interpreting competitiveness because the world is changing rapidly; therefore a new way of thinking must be parallel to cover all the sustainability aspects: people, economic and environment.

The main goal of this study is to have a general knowledge of the drivers of green competitiveness which is the modern version of the traditional competitiveness concept.

The purpose of this study is to examine the concept of green competitiveness taking in consideration different interpretations of scientists.

In this study, the analysis of green competitiveness will be grounded by a previous scientific literature review to determine the most important factors that affect the organization's performance.

**Keywords**: Green competitive advantage, Green competitiveness, sustainability, sustainable management.

JEL Classification: M1, M16, D8, D83

# THE EFFECT OF PROFESSIONALS-RELATED HUMAN RESOURCES PRACTICES ON EMPLOYEE TURNOVER IN LARGE LATVIAN COMPANIES

#### Iveta OZOLINA-OZOLA

Riga Technical University, Riga, Latvia

Corresponding author's e-mail: <a href="mailto:lveta.ozolina-ozola@rtu.lv">lveta.ozolina-ozola@rtu.lv</a>

**Abstract**. This study explores which human resource management practices executed towards company's managers and specialists are linked with employee turnover. The study is based on CRANET survey dataset that represents Latvian companies with 200 or more employees. By applying inferential statistics techniques, there were revealed significant relationships between employee turnover rate and set of various practices characterized recruitment, selection, performance appraisal, rewarding and informing of managers or specialists. The revealed human resource management practices may be used by executives or human resource specialists in Latvian organisations for evaluation, planning or coordination of current activities to achieve preferable employee turnover rate.

**Keywords**: Employee turnover, Human resource management (HRM), Latvia, Managers, Specialists.

**JEL Classification:** J63, M12

# HOW "GREEN" ARE THE LATVIAN MUNICIPALITIES?: GREEN PUBLIC PROCUREMENT IN LATVIA

#### Inese PELŠA

University of Latvia, Riga, Latvia

Corresponding author's e-mail: ik17163@lu.lv

**Abstract**. Green public procurement (GPP) is an instrument for public institutions that have made sustainable consumption and financial aids savings, particularly taking into consideration expenses of the total life cycle of the agreement, not just the procurement price. Municipalities are important to promotion of sustainable consumption through their positive effects on citizens and other stakeholders. This paper analyses the contribution of municipalities of the Republic of Latvia in developing sustainable consumption through GPP.

The aim of the paper is to explore the development of GPP in municipalities, analysing influencing factors. By analysing data from the Procurement Supervision Agency and the State Regional Development Agency the proportion of GPP is explored. The paper includes data collected in a survey of municipalities of Latvia aiming to identify the main factors that promote the development of GPP and the ones that are obstacles for implementing the GPP. The conclusions show that GPP is relatively a new activity in Latvia, especially in relation to sustainable consumption. Analytical, graphic, statistical research methods as well as other qualitative and quantitative research methods have been used in this research.

Keywords: Green public procurement, Latvian municipalities, Sustainable consumption

**JEL Classification:** Q001, Q58

### FORECAST OF LATVIAN AGE STRUCTURE

#### **Leonids PETERSONS**

Riga Technical University, Riga, Latvia
Corresponding author's e-mail: <a href="mailto:leonids.petersons2@inbox.lv">leonids.petersons2@inbox.lv</a>

**Abstract**. Using the developed mathematical model for forecasting population and age structure in Latvia, the structure of different generations in Latvia has been calculated. This model is based on generally available statistics on population and birth rates in 1990-2018. Using these data, we have calculated coefficients that characterize the annual decline in population due to mortality and emigration. Using fertility indicators in each fertile group, forecasts of births for the coming years are made, and the estimated population in Latvia is calculated. Forecasts extrapolated to 2050.

The forecast shows that in 2050 the population in Latvia will decrease to one million. Using generic population breakdowns in generations, the number of people in each generation in Latvia has been calculated from 2018 onwards. On the basis of this calculation, an overview of the proportions of generations in the Latvian labor market over the years has been developed. Based on forecasts of demographic structure, it is calculated what proportion of workers in Latvia will be formed by popular age group - Millenials. It is shown that this generation's proportion will exceed 50% of the number of employees already in 2020.

**Keywords:** Age pyramid, Age structure, Birth rate, Demographic, Generation structure, Population, Prediction.

**JEL Classification:** J240

#### TRANSFORMATION OF LOYALTY TO E-LOYALTY

#### Elina RADIONOVA-GIRSA<sup>1</sup>, Anda BATRAGA<sup>2</sup>

<sup>1,2</sup> University of Latvia, Riga, Latvia

Corresponding author's e-mail: <a href="mailto:elinaradionova@gmail.com">elinaradionova@gmail.com</a>

Abstract. As everyday life moves to the Internet, many factors and components have come up with the "e" and e-loyalty is not an exception. The authors focused on the transformation of loyalty to e-loyalty. It is important to understand the main differences between consumer loyalty models and e-loyalty models in order to promote business development not only in the traditional environment but also in the online environment. Such research methods as comparative analysis, analysis of the scientific literature, content analysis was used. The main focus of the research was on comparing loyalty models in traditional and e-environment to find out the peculiarities and main features of e-environment. New factors that influence loyalty in the Internet environment, but not in the real world, were highlighted as the main results. All the new influencing factors are related to the company's operation directly in the Internet environment and technical capabilities, as well as online communication. As a result, were found the primary and secondary e-loyalty influencing factor groups. This is an important topic of the 21st century, enabling businesses to move online mode and change their strategy according to the e-environment.

Keywords: E-loyalty, E-satisfaction, Loyalty models, Online environment, Satisfaction.

**JEL Classification:** M31

### COACHING SUPPORT AND DEVELOPMENT PROGRAMME: EXPLORING THE IMPACT OF COACHING ON ORGANISATIONAL SUSTAINABILITY

Angelina ROŠA<sup>1</sup>, Natalja LĀCE<sup>2</sup>

<sup>1,2</sup> Riga Technical University, Riga, Latvia
Corresponding author's e-mail: natalja.lace@rtu.lv

**Abstract**. In order to identify the impact of coaching on sustainable development of an organisation, coaching support and development programme is developed and tested. The programme is designed using the organisational life cycle model. The specific focus is on the measurement system to evaluate the programme ongoing results and outcomes. Coaching programme took place from June 2018 to December 2018 in the organisation which operates in wholesale business. The programme aims to reinforce performance and to foster the creation of more innovative sustainable organisational culture. All sales staff of one of the units (n=19) received seven coaching sessions with a professional external coach. The participants were divided into three groups: team leaders group; salesmen lively group and salesmen Skype group. The current paper discusses the value and impact of the programme on the individual behaviour, team and organisational performance. Data was collected through group and individual interviews, by pre, during and post feedback questionnaires, and the comparison of the results of the coached unit with the control unit. Findings indicate that the positive impact of the programme is reflected first of all in the increase of awareness and improvement of communication. The team leaders indicated the highest rate of change as a result of the programme in contrast to the Skype group. The results showed that the coached unit performance was higher as compared with the control unit. The paper concludes that a coherent and consistent coaching programme with a holistic evaluation system leads to improvement in organisational sustainability.

**Keywords**: Coaching programme, Measurement and evaluation system, Organisational life cycle model, Sustainable development

**JEL Classification:** M12; M14; M53

# THE RISE OF THE GHENT (BE) INNOVATION DISTRICT: THE CASE OF THE BIOTECHNOLOGY INDUSTRY

#### Jean-Pierre SEGERS<sup>1,2</sup>

<sup>1</sup>Université de Liège (HEC-ULg), Liège, Belgium

<sup>2</sup>PXL University of Applied Sciences & Arts, Limburg, Belgium

Corresponding author's e-mail: JP.Segers@alumni.uliege.be

**Abstract**. Belgium has firmly established itself as a world-class international player in red and green biotechnology - i.e. pharmaceutical and healthcare applications, medtech and plant biotechnology, with a fast evolving (bio)pharmaceutical industry in the Flanders and Wallonia bioRegions. It is a complex network of large corporate players with strong marketing capabilities and new biotechnology firms that focus on research and development. This contribution explores the evolution of the red and green biotechnology cluster in the bioRegion of Flanders (Belgium), in particular in the Ghent innovation district - Tech Lane Ghent - building on

- (1) the economywide country study by Segers (2017) on the interplay between new and innovative biotechnology firms, the influence of strategic alliances (interfirm partnerships) with large (global) pharmaceutical companies and the role that open innovation might play in the further reinforcement of these relationships within regional biotechnology clusters (bioRegions);
- (2) the methodology on innovation districts provided by Katz and Wagner (2014) and Wagner, Katz and Osha (2019), defining the innovation district as an urban geography of innovation that sits at the intersection of economy-shaping, place-making, and network-building and as a geographic area where anchor institutions and companies cluster and connect with small firms, start-ups, business incubators and accelerators.

In this contribution, the Ghent innovation district in highlighted. It shows that triple helix and public private frameworks provide good practices for new biotechnology entrepreneurial ventures in conjunction with the strategic alliances with big pharma. Fruitful collaborations with top level university research institutions and major publicly-funded cluster organizations enhance R&D-investments and result in new spin-offs.

Keywords: Belgium; BioRegions; Biotechnology; Innovation districts; Pharmaceuticals;

**JEL Classification:** O320

# RELATIONSHIP BETWEEN NURSING HOME SAFETY CLIMATE AND CAREGIVERS' COMPETENCE

#### Jaana SEPP<sup>1</sup>, Marina JÄRVIS<sup>2</sup>

<sup>1,2</sup> Tallinn Health Care College, Tallinn, Estonia

Corresponding author's e-mail: jaana.sepp@ttk.ee

**Abstract**. To provide quality healthcare strong teamwork, safety commitment and collaboration between workers are needed. The aim of this paper is to analyse factors related to safety climate and professional competence among caregivers and to compare the results between different age groups in Estonian nursing homes.

A Nordic Safety Climate Questionnaire (NOSACQ-50), measuring 7 dimensions of safety climate was used in order to assess caregivers' perceptions of the safety climate in Estonian nursing homes, on a sample of 233 caregivers. In order to supplement results from the safety climate study, a Caregivers Competence Questionnaire (CCQ) measuring 6 scales of the caregivers' competences, their perceptions towards received education and safety-related procedures in nursing homes, was used on a sample of 241 caregivers.

Results show differences between age groups of caregivers. The most experienced caregivers tended to understand more their speciality and to rate the dimensions of safety climate and safety commitment more positively than did younger age groups of caregivers. For example, group age group with respondents born at years 1961-1970, gave more positive ratings of "Necessary skills, knowledge in living questions and caring activities" than did other groups of caregivers (mean=4.46 and 4.41) and of "First aid" (mean=4.47).

The study sheds new light on the usability and applicability of the existing assessment tools NASACQ-50 and CCQ. Interventions to promote safety climate in the nursing homes, should be tailored to the target group with a special focus on age and work experiences as attitudes and perceptions may differ among those groups.

Keywords: Safety Climate, Nursing homes, Caregivers, Competences, NOSACQ-50, CCQ

**JEL Classification:** J14, J28

# REGULATING THE MULTILEVEL TRANSFER SYSTEM OF INNOVATIONS FOR SUSTAINABLE DEVELOPMENT

#### Olena SHKARUPA<sup>1</sup>, Ivan SHKARUPA<sup>2</sup>

<sup>1-2</sup> Sumy State University, Sumy, Ukraine

Corresponding author's e-mail: <a href="mailto:elenashkarupa@econ.sumdu.edu.ua">elenashkarupa@econ.sumdu.edu.ua</a>

**Abstract**. The abstract analyses providing the regulatory issues of environmental modernization of national economy. It presents the new scientific approaches to the transfer system of innovations for the sustainable development. It also focuses on principles and mechanism of transfer.

Niche eco-innovations are defined as the basic object of the transfer - narrowly specialized segmental object-process eco-innovations in individual functional units of the economic system, which, through their scaling, geographical and sectoral diversification, become catalysts for green economy growth. Unlike other forms of transfer, they have the following features: 1) dual nature - their simultaneous understanding, on the one hand, as an object of innovation process (specific technology, technology, product), and on the other - as a process (complex of organizational and management measures); 2) the ability to cumulative accumulation, triggering a chain reaction, in the process of which changes the target of innovation and widens the circle of final beneficiaries. Niche eco-innovations at the level of individual households, companies and institutions are aimed at solving a specific pragmatic business problem (changing the level of material, energy, resource consumption etc.). The formation of an innovation transfer system requires its adjustment to its principles: 1) the principle of network-centricity (based on the functional peculiarities of different types of niche innovations, for their scaling at the economy level; 2) the principle of conjunction (compliance of the quality of the implemented niche eco-innovations with their resource provision); 3) the principle of extended coordination (to coordinate the vector of regulation of the transfer of innovations and the choice of specific regulatory measures, it is necessary to form a targeting system, which should balance both the quantity and quality of niche ecoinnovations); 4) the principle of inclusion (the key to the effectiveness of state regulation of innovation transfer is the communication involvement of all stakeholders in this process). In the context of the implementation of the proposed system of state regulation of innovation transfer, it is important to assess and take into account the overall level of innovation activity in the country, as well as the willingness of entrepreneurs to further scale up ecomodernization.

**Keywords**: Innovation, Indicators, Reforms, Economic instruments, Sustainable development, National economy.

JEL Classification: O1, O3, P4

The article contains the results of research carried out within the framework of research work that is financed of the Ministry of Education and Science of Ukraine "Modelling the transfer of eco-innovations in the system "enterprise-region-state": the impact on economic growth and security of Ukraine", (N0119U100364).

# EVALUATION OF GREEN MARKETING PERFORMANCE: A METHODOLOGICAL PERSPECTIVE

#### Ilona SKACKAUSKIENE<sup>1</sup>, Neringa VILKAITE-VAITONE<sup>2</sup>

<sup>1,2</sup> Vilnius Gediminas Technical University, Vilnius, Lithuania Corresponding author's e-mail: neringa.vilkaite-vaitone@vgtu.lt

**Abstract**. Green marketing has been drawing the attention of academics and practioners during the last few decades. However, no holistic framework has been developed on how to evaluate implementation of green marketing orientation at company's level. This article aims at investigation of methods for the evaluation of green marketing. Using multi-source data authors have found out that it is possible to ground the evaluation of green marketing performance on the factors determining the choice of green marketing orientation that can be of external or internal nature. Demonstrating the variety of green marketing factors, this paper also explains criteria, scales and methods used for the evaluation of green marketing. This study enriches the literature by suggesting well-founded guidelines for the evaluation of green marketing performance in modern organization.

Keywords: Ecological behaviour, Environment, Green marketing, Sustainability.

JEL Classification: M30, M31, M37, Q56

#### ELEMENTS INCLUDED IN BRAND POSITIONING

#### **Evita STRAUSA**

Riga Technical University, Riga, Latvia

Corresponding author's e-mail: evita.strausa@edu.rtu.lv

**Abstract**. Brand positioning determines how consumer perceives the brand and the product, what is consumer's perception of the brand and product and how highly consumer identifies himself with a brand. Brand positioning becomes increasingly important in an information-saturated environment. In order to achieve consumer attention, it is crucial to define which positioning elements are included into brand positioning - which factors company should consider within positioning strategy to create a differentiation from competitors.

Scientific aim of the research is to determine the elements of brand positioning; object of research is brand positioning. In order to achieve the objective of the study theories of brand positioning are collected and elements of positioning are defined using two methods: Systematic review and Qualitative content analysis.

Results of the study are compared, defined and brand positioning elements are defined by priorities. Analysing the results of the research, the author concludes that the defined brand elements can be divided into three groups of positioning influence objects: market, brand and customer, and just one of the elements "Relationship, Synergy" refers to two factors: both brand and customer. This element unites the brand and the customer, and by summarizing and visualizing the results, the author concludes that focusing on positioning between the two parties involved creates the strongest emotional bond.

At the end of the thesis, further steps are taken to develop the research, focusing on in-depth exploration of the "Relationship, Synergy" element, as well as research on brand positioning issues, such as brand positioning strategies, how positioning affects business development efficiency, and how to increase positioning impact on business development.

Keywords: Brand Positioning, Brand elements, Brand, Marketing.

**JEL Classification:** M31

# FORMATION OF EMOTIONAL CLIMATE IN HUMAN RESOURCE MANAGEMENT

### Sigitas VAITKEVICIUS<sup>1</sup>, Palmira PAPSIENE<sup>2</sup>

<sup>1,2</sup> Vytautas Magnus University, Kaunas, Lithuania Corresponding author e-mail: <u>palmira.papsiene@gmail.com</u>

**Abstract**. Research is concentrated upon efficient human resource management while pursuing organizational goals and benefit for every employee and organization as a whole. Under the requirements of global market, managers expect their subordinates to be effortlessly managed, confident, dynamic in completion of assigned tasks, and ensuring maximum work efficiency. Such a possibility is theoretically analysed in this article by employing deductive thinking in interdisciplinary integration. The article describes the formation of employee emotional climate, which has impact upon employee behaviour in individual as well as in team work, based on application of human resource evaluation factor with contribution of manipulations. Hypothetical presumptions resulted in assumptions that have shown dominance of disjunction (*or*); it means that interaction between alternatives is impossible. Therefore, logical interactions were prepared on the basis of deductive thinking by usage of *Law* (*or principle*) *of the Excluded Third*. These logical interactions resulted in models of emotional climate formation.

Keywords: Personnel management, Human resource, Emotional climate, Logical sequence

JEL Classification: D23, D91, M12, O15

### IMPACT OF DIGITALIZATION ON CONSUMER LENDING MARKET IN LATVIA

### Atis VERDENHOFS<sup>1</sup>, Tatjana TAMBOVCEVA<sup>2</sup>

1,2 Riga Technical University, Riga, Latvia

Corresponding author's e-mail: atis@enkurs.org

Abstract. Starting with 2008 in Latvia during economic recession new form of consumer lending market formed and started to develop – non-bank consumer lending market that only operated online. Since traditional financial institutions tightened their credit policies and new companies had much higher risk appetites non-bank market developed rapidly. Consumers had an easy access to services provided by newly formed lenders because of their online presence and after 10 years of operations industry issued volumes of 263 million EUR in 2018. Research is performed in a form or case study – combination of data analysis and interviews. Authors of the research are identifying key reasons that ensured rapid development of non-bank lending industry in Latvia. Based on available data digitalization is mentioned as one of key components that ensured development of non-bank consumer lending in Latvia.

**Keywords**: Consumer lending, Digitalization, Non-bank lending.

**JEL Classification:** M48, O17

# EXPLORING THE METHODOLOGICAL POTENTIAL FOR DECISION-MAKING IN SERVICE MODULARIZATION PLANNING

### Jurga VESTERTE <sup>1</sup>, Ilona SKAČKAUSKIENĖ<sup>2</sup>

<sup>1,2</sup>Vilnius Gediminas Technical University, Vilnius, Lithuania Corresponding author's e-mail: jurga.vesterte@vgtu.lt

**Abstract**. The breakthroughs in technology transform the nowadays service systems making them more efficient and introducing radical changes in customer experience. The straight path for the acceleration of technology adoption is through service standardization. However, service providers must deliver services in a way that increases customer satisfaction, e.g. customizing service for specific needs and wishes. Therefore, service organizations encounter paradoxical choices: they want to increase productivity by standardizing services and adopting technologies but, at the same time, keep customers satisfied by meeting customized requests. Management literature proposes several strategic approaches for balancing the above-mentioned paradoxical choices between service productivity and customer satisfaction. One of them contains the service modularization approach which attains a kind of equilibrium between service standardization and customization. However, studies on decision-making regarding service modularization planning remain silent. This research addresses this gap and explores the opportunities to create the decision-support model for service organizations what strategically evaluates their options for service modularization. The study is exploratory. It presents and classifies the methodological potential for decision-making that is related to service modularization planning and builds a basement for further research.

**Keywords**: Services; Service modularity; Service delivery planning; Service management; Management decisions; Decision support model.

JEL Classification M11

# FORMS OF SCIENCE-INDUSTRY LINKAGES IN POLISH MANUFACTURING SECTOR: DO FIRM CHARACTERISTICS MATTER?

#### Łukasz WŚCIUBIAK

Poznań University of Economics and Business, Poznań, Poland Corresponding author's e-mail: lukasz, wsciubiak@ue, poznan.pl

**Abstract**. University-industry cooperation plays an increasingly important role in contemporary innovation processes. Depending on the needs and expectations of business partner, relations with scientific community may take a number of different forms: from simple, less formal interactions, through academic consulting or R&D (research and development) contracting, to sophisticated research projects. The aim of this paper is to investigate how firm characteristics affects the forms of its relationships with research organizations. In the study the results of a survey carried out among a purposively selected group of 48 manufacturing enterprises (predominantly small and medium-sized) were used. The surveyed companies reported a total of 149 links with various research and scientific organizations. Time range of research covered the period 2014-2016. The results show that the characteristics of the company affect both the number of links with research organizations, as well as the form of cooperation. In particular, companies introducing radical innovation (new worldwide), allocating significant resources to R&D and strongly involved in export activites are more likely to engage in joint research projects. Small companies (up to 50 employess) and family firms seem to be more interested in such forms of cooperation as information exchange and joint publications. Firm characteristics had also an impact on the propensity to establish cooperation with regional partners.

**Keywords**: Knowledge Exchange, Manufacturing Sector, Open Innovation, Technology Transfer, University-Industry Collaboration.

JEL Classification: L60, O32

# OPTIMIZATION OF DATA MANAGEMENT SYSTEM BETWEEN ORGANIZATIONS

### Marga ZIVITERE<sup>1</sup>, Nika ALMAR<sup>2</sup>

<sup>1</sup>Ventspils University College, Ventspils, Latvia <sup>2</sup>Information Systems Management Institute, Riga, Latvia Corresponding author's e-mail: marga.zivitere@isma.lv

**Abstract**. The research proves the necessity of introducing automated systems of data exchange and creating a clear structure of regulations regarding the interaction between all participants. The purpose of this research is the development of an optimum pattern of information interaction. The practical objective of the research is the description of a plan for the introduction of an information management system in business processes and optimization of the interaction pattern between the company department and with partners of the company. The result of the research and implementation of the developed solution to improve the efficiency of information interaction between all parties: the manufacturer, distributor and retailer, as well as to optimize business processes and information interaction into the company's departments.

**Keywords:** Business administration, E-commerce, Information and Communication Technology, Information Systems, Internal Organization, IT Management, Optimization, Retail.

JEL Classification: C61, L22, L81, M15

### LEGAL TOOLS FOR CORPORATE GOVERNANCE IMPLEMENTATION IN STATE OWNED ENTERPRISES IN LATVIA

### Ilze ZUMENTE<sup>1</sup>, Natalja LĀCE<sup>2</sup>

<sup>1,2</sup> Riga Technical University, Riga, Latvia

Corresponding author's e-mail: natalja.lace@rtu.lv

**Abstract**. Corporate governance (CG) implementation for Latvian state owned enterprises (SOE) has gained additional importance since Latvia joined OECD in 2016. By joining the OECD, Latvia has agreed to pursue state company management in accordance with the OECD Guidelines (2015). The legal framework in force in Latvia comprising the CG implementation requirements, however, is still developing.

The aim of the research is to provide an overview of the legal framework currently available for the state to ensure proper CG principles in companies with a state shareholding. The overview is based on a review of the existing documents and literature. The research provides recommendations for the further potential studies in the field.

The Law on Governance of Capital Shares of a Public Person and Capital Companies (2014) (the Governance law) provides the main legal framework for the overall SOE policy. It sets forth the reporting requirements, regulations for management and supervisory boards as well as enlists the required disclosure domains. An independent coordinating body - Cross Sectoral Coordination centre (CSCC) - shall ensure further implementation of CG practices. Since its foundation in 2011, CSCC has issued six various guidelines covering primary CG principles.

While the legal tools for CG implementation in SOEs ensure a basic set of CG principles, the more developed aspects prescribed in the guidelines are still legally not binding, thus the implementation degree of them vary greatly across the Latvian SOEs. Moreover, the state's focus so far has been put on the companies that are directly state owned, while the municipality owned companies are rather lagging in CG practice implementation. The question of implementation efficiency shall once again become actual soon as the Governance law is about to change as of 1 January 2020 in order to further specify the tasks of the supervisory board as well as include further disclosures for SOEs.

Given the varying degree of the CG adoption practices, the focus of the further research in this area shall lie on the efficiency of the existing legal tools to ensure an effective implementation of the CG principles in Latvian SOEs. A focus might be put on the analysis of the possibilities for legal enforcement in municipality owned companies.

**Keywords**: Corporate governance, State owned enterprises

JEL Classification: G34

## **SUBSECTION**

"INNOVATION AND QUALITY TECHNOLOGIES"

### QUALITY FUNCTION DEPLOYMENT METHODOLOGY FOR STUDY PROGRAM IMPROVEMENT: ADVANTAGES AND RISKS

### Irina DEGTJARJOVA<sup>1</sup>, Inga LAPIŅA<sup>2</sup>

<sup>1,2</sup> Riga Technical University, Riga, Latvia Corresponding author's e-mail: <u>irina.degtjarjova@rtu.lv</u>

**Abstract**. According to the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), the Law on Institutions of Higher Education of Latvia (LIHEL), regulations of the Minister Cabinet and the Guidelines, Criteria and Methodology for the Preparation of the Description of a Study Programme affective from 1st February 2019 there are several quality indicators implemented in quality assurance. Some of indicators can be affected at the level of the study program. In the context of the studentcentred learning (SCL) students' assessment and satisfaction have the crucial role. Therefore it is important to choose a method that would help to obtain information about skill importance as well as about the opportunities to acquire skills and satisfy students' needs within the study program. Quality Function Deployment (QFD) methodology is one of the quality assurance methodologies applied for the management, assessment and improvement; it can be applied in different fields, including higher education. The QFD methodology is the most appropriate, as it allows to determine relationships precisely and evaluate the strength of relationships between skills and study courses. The research helped to understand how the QFD methodology can be used. The purpose of the research is to analyse advantages and risks of using QFD for assessment and improvement the quality of study program. Research methods are the literature overview and observations on the experience of using the method. Research shows that the QFD can be used successfully to ensure conformity of the study program with industry trends and professional standard, stakeholders' needs and expectations with learning outcomes, to strengthen "voice of customer" and "voice of employer", ensure closer cooperation and stakeholder in-depth involvement. One of the biggest risk is related to the inability to use the method correctly. Both assessors' mistakes and respondents' misunderstanding have the vital role for the using of methodology.

Keywords: Improvement, Quality function deployment methodology, Quality of study program.

JEL Classification: I210, O320

### QUALITY CULTURE AND QUALITY OF WORK LIFE

### Ilze KAIRIŠA<sup>1</sup>, Iveta OZOLIŅA – OZOLA<sup>2</sup>, Inga LAPIŅA<sup>3</sup>

<sup>1-3</sup> Riga Technical University, Riga, Latvia
Corresponding author's e-mail: ilze.kairisa@inbox.lv

**Abstract.** The aim of the study is to find out whether there is a significant correlation between quality culture and the quality of work life. The topicality of the research is related to the role of quality culture in the operation of the organization, the emotional needs of employees and the characteristics of the quality of work life that influence work performance. In order to answer the research questions and to test the hypotheses, a cross-sectional data from the survey of the working population of Latvia was used. The aforementioned survey was conducted in the framework of the IMPRESS (*Improving management competences on Excellence based Stress avoidance and working towards Sustainable organisational development in Europe*) project.

IMPRESS Project is being funded by the European Union's Erasmus+ program (IMPRESS, 2019). The project survey was conducted in 2018 and in Latvia it was coordinated by Riga Technical University (RTU). To measure the relationship between quality culture and work life, seven work environment aspects of the IMPRESS questionnaire were used: "Inefficient processes and workflows", "Inflexible processes and workflows", "Problems in coordinating joint activities with other groups", "Tight working hours due to new technologies", "More workload due to new technologies", "Complexity of the new technologies", "Fear of being replaced due to new technologies".

Employees' emotional needs are linked to the quality and well-being of their work life; research shows that employees' emotional needs are: safe and stable work, interesting and diverse work, the company's success in its field, an attractive additional rewards system, the company taking care of its employees, training and growth opportunities. Employees' emotional needs are related to all factors of quality culture and employees' work satisfaction. The aforementioned shows a correlation between quality culture and employees' emotional needs.

Higher levels of general stress for workers lead to lower levels of their engagement and satisfaction. Inefficient processes and workflows cause stress for employees; higher levels of overall stress for employees are associated with lower levels of well-being. The more stress workers experience due to a lack of quality culture or its implementation into their work, the higher their overall level of stress.

**Keywords**: quality culture, work life quality

**JEL Classification:** M14

# CERTIFICATION OF PERSONS TOWARDS SUCCESSFUL IMPLEMENTATION OF SUSTAINABLE PRACTICES

### Maija KAVOSA<sup>1</sup>, Svetlana MJAKUŠKINA<sup>1</sup>, Inga LAPIŅA<sup>3</sup>

<sup>1-3</sup> Riga Technical University, Riga, Latvia

Corresponding author's e-mail: <a href="mailto:maija.kavosa@rtu.lv">maija.kavosa@rtu.lv</a>

**Abstract.** The aim of the study is to promote scientific discussion and in-depth research of aspects related to professional competence assessment of persons in order to identify the main sustainability competences that should be evaluated during the certification process to overcome barriers towards successful implementation of sustainable practices.

Research is focused on the professional competence assessment process performed by the State Construction Control Bureau of Latvia.

The analysis was carried out by using several research methods, such as literature review, logical and comparative analysis and Delphi method.

The intellectual competence of certified persons plays the most significant role in sustainable performance and there is a strong linkage between sustainability and competitiveness, therefore the person's attitude and perception towards sustainability should be monitored and assessed. The lack of skilled and qualified workers is one of the main risk factors towards successful implementation of sustainable practices, which includes such professional competence barriers as lack of awareness of professionals, lack of professional knowledge and lack of full understanding of action consequences.

The activity-based nature of sustainable practices calls for adopting creativity, skills, know-how and modern technologies striving as much as possible to implement sustainable competence assessment practices. In order to eliminate the impact of inadequate assessment of professional competences in the certification process of persons, it is necessary for certification bodies to develop new tools, new skills and new programs based on highly specific expertise according to the professional competence assessment methods in order to manage and monitor competences towards sustainable practices.

**Keywords**: Competence assessment, Professional competence, Sustainability, Certification of persons.

**JEL Classification: Q01** 

# UNIVERSITY QUALITY SYSTEM DEVELOPMENT: ALIGNING KEY PERFORMANCE INDICATORS

Aija MEDNE<sup>1</sup>, Inga LAPIŅA<sup>2</sup> Artūrs ZEPS<sup>3</sup>

<sup>1-3</sup> Riga Technical University, Riga, Latvia

Corresponding author's e-mail: aija.medne@rtu.lv

**Abstract**. Development of the university's quality system, like the improvement of processes, is an endless set of activities aimed for the efficiency and excellence of the university's operations. One of the challenges for universities is to develop a set of Key Performance Indicators (thereafter – KPIs) that are in line with the strategy and at the same time reflect desirable development results.

In this research quality system development is analysed together with the strategic development of universities nowadays. The aim of this research is to analyse the main groups of indicators that are linked to the university's strategy and describe the quality system development. The main idea of the paper is to understand what kinds of groups of KPIs are used for evaluating the organization's Strategy in the context of quality system development. Literature review, comparative analyses and qualitative content analysis with open coding were used to identify the groups of indicators that describe the quality system development. By using qualitative content analysis, the author discovered 18 groups of KPIs and from them 6 categories that are linked to university quality system development. The research also includes analysis of defined groups of indicators in comparison with the groups of indicators used in RTU Excellence Approach. Both hypotheses of this research were proven. Groups of KPIs that align with the university's Strategy contribute to the development of the quality system and they show similar elements with the set of indicators based in the RTU Excellence Approach.

Keywords: University, Quality, Key Performance Indicators, Strategy, Development.

JEL Classification: I210; I280

# RELATIONSHIP BETWEEN MANAGERIAL AND ENTREPRENEURIAL COMPETENCES IN STARTUPS

### Tatjana ŅIKITINA<sup>1</sup>, Inga LAPIŅA<sup>2</sup>, Modris OZOLIŅŠ<sup>3</sup>

<sup>1-3</sup> Riga Technical University, Riga, Latvia
Corresponding author's e-mail: tatjana.nikitina@rtu.lv

**Abstract**. The authors investigated correlation between entrepreneurial and managerial competences. The studies were performed as a part of project that has received funding from Erasmus+ KA (203) cooperation for innovation and the exchange of good practices and a strategic partnership project No.2018-1-LV01-KA203-046974.

To validate the sets of knowledge, skills and competence recognized in the context of literature review, the authors combined the method with focus groups of start-up entrepreneurs. The focus group members in Finland, the Netherlands and Latvia conducted brainstorming aimed to generate and evaluate competences as well as match these finding with the ones that are enlisted in the 15 EntreComp Entrepreneurship Framework model competences. The Entrecomp model was considered as a benchmark for the skills that are requested in the labor market. The evaluation of the importance of the existing 15 EntreComp competences and of newly identified competences was required as an input for importance/performance analysis.

It was detected that entrepreneurs participating in the research assess motivation and perseverance competence as the most important to launch a business. As the least important skills that were chosen by start-up founders for entrepreneurs have been considered the abilities included the EU EntreComp framework but not investigated by academia from perspective of entrepreneurial or managerial competences in modern organizations; that are ethical and sustainable thinking, then mobilizing resources, and finally, financial and economic literacy.

As recommendations for further research the authors suggest continuing the investigation within the more mature business entities and serial entrepreneurs.

**Keywords**: Competence, Entrepreneurial Competence, Knowledge Management, Managerial Competence

**JEL Classification:** M1, J24, O15, D83, M54, M12

# A STRUCTURED APPROACH FOR THE PROCESS OF STANDARDS DEVELOPMENT

Arta PĪLĒNA<sup>1</sup>, Iveta MEŽINSKA<sup>2</sup>, Inga LAPIŅA<sup>3</sup>

Riga Technical University, Riga, Latvia

Corresponding author's e-mail: arta.pilena@gmail.com

**Abstract**. The establishment of common values and principles within an organization has become an ever-growing practice for the sustainable operation of organizations. The international standardization system, however, is a multi-level structure including international, regional and national standardization organizations that are expected to operate according to common principles set by the WTO. To ensure the effective application of previously set principles in an organization, an approach for the assessment of the level of implementation of these principles should be applied. The aim of the paper is to define a structure for the identification and assessment of the application of the WTO principles for standards development to specific stages of the standards development process. A literature review on the structure and organizational elements of the international standardization system is performed. An analysis and comparison of the purpose of the WTO principles is carried out, following a visualization of the common structure of the standards development process. Main conclusions and results: generally, assessments for the implementation of the WTO principles for standards development are performed considering overall operation of standardization organizations, however, a lack of assessment of the implementation of these principles in the standards development process itself can be identified. A structured scheme of the standards development process is created, identifying the stages where specific WTO principles for standards development may be applied and indicators for the assessment of the implementation of the principles are defined.

**Keywords**: Conformity assessment, International standardization, Standardization, Standardization principles, Standards development, WTO (World Trade Organization) Principles for standards development.

JEL Classification: F130, L150, O190

# ENVIRONMENTAL FACTORS INFLUENCING HEALTHCARE INNOVATIONS: A SYSTEMATIC REVIEW OF RECENT RESEARCH

#### Vladimirs ROJENKO

Riga Stradins University, Riga, Latvia
Corresponding author's e-mail: <a href="mailto:vladimirs.rojenko@lu.lv">vladimirs.rojenko@lu.lv</a>

Abstract. Currently healthcare is an extremely fast-growing industry with high development potential and need for innovations. Private and public healthcare and life sciences companies and organizations are facing rising costs and inconsistent outcomes. The implementation of innovations and innovative development projects is leading to organizational change and better delivery of care and healthcare services to the people. The aim (objective) of this article is: to identify enabling external and internal environment factors that influence positive outcome of implementing innovations in public and private healthcare organizations. Methodology of the study is based on the search focused on scientific papers published in English between 2014 and 2019 using PRISMA Statement methodology and content analysis of the selected papers. As a result of the research the set of the internal and external factors that influence positive outcome of implementing innovations in public and private healthcare organizations were identified. The conclusions of this research are related to the fact that it is necessary to perform further research with a focus on how environmental factors interacts and lead to positive innovation outcome.

**Keywords**: Content analysis, Environmental factors, Healthcare innovations, Innovation management, Medical innovations.

**JEL Classification:** O31, O32

# WORK STRESS MANAGEMENT TECHNIQUES BASED ON IMPRESS PROJECT STUDY

### Zane ROSTOKA<sup>1</sup>, Jānis MAZAIS<sup>2</sup>, Inga LAPIŅA<sup>3</sup>

Riga Technical University, Riga, Latvia

Corresponding authors' email: Zane.Rostoka@rtu.lv

**Abstract**. IMPRESS: Improving management competences on Excellence based Stress avoidance and working towards Sustainable organisational development in Europe.

The intention of the project is to develop an approach and carry out pilot tests that will allow users to identify and deal with stress related issues in their own organisations and prepare the ground for new employment opportunities based on a sustainable and quantifiable stress management concept.

The one of the IMPRESS project aims is to train employees and managers, to help them to recognize the problem and to learn the ways to fix it, in order to reduce stress in the workplace. Another aim is to make stress reduction more conducive and to introduce the concept and basic approaches, explaining how it can be used to improve the own organization and to introduce methods how to use some basic tools for identification of your own strengths and improvement potential. Model also can be used to analyse stress factors and improve resources, resilience measures and therefore well-being at work. Organisational stress sources, personal factors are additionally included in the tool as they can also influence the work life of the employees. Boundaries between work life and private life often blur because of digitalisation, therefore it is necessary to include both domains in a holistic stress management concept.

Stress may be considered as any physical, chemical, or emotional factor that causes mental unrest and that may be a factor in causing disease at individual level and low engagement and performance at organizational level.

The degree of stress is highly dependent upon individual factors such as our physical health, the quality of our interpersonal relationships, the number of commitments and responsibilities we carry and our expectations, the amount of support we receive from others, and the number of changes or events that have recently occurred.

People with strong social support systems experience fewer physical and emotional symptoms of stress than their less-connected counterparts. Cultivating and developing a social support network is one of the steps to reduce work related stress in organization. Having a well-functioning support system at work can help buffer you from the negative effects of job stress.

#### Benefits:

- 1. User-friendly assessment tools for stress prevention: easy and continuous identification and measurement of early stress level indicators;
- 2. Training and coaching material for timely and sustainable stress management;
- 3. Reduction of costs caused by work related stress and psychosocial risks, including costs to employers for absenteeism, presenteeism, and loss of productivity; health care costs; social welfare costs in the form of disability benefit payments reduction of depression, absenteeism and presenteeism, increased productivity.

Keywords: Work stress, Management, IMPRESS.

## **SUBSECTION**

# "INTERNAL SECURITY AND CIVIL PROTECTION"

# CURRENT ISSUES OF LABOR PROTECTION IN NEW FORMS OF EMPLOYMENT IN LATVIA

Guna BAZONE<sup>1</sup>, Māris ZIEMELIS<sup>2</sup>

<sup>1,2</sup> Riga Technical University, Riga, Latvia
Corresponding author's e-mail: guna.bazone@rtu.lv

**Abstract**. Societal and economic developments, such as the need for greater flexibility on the part of both - employers and workers, have led to the emergence of new forms of employment across all Europe. Currently, there is no common understanding of what exactly "new forms of employment" are, because something that exists in one country may be non-existent or not fully developed in another. The most popular new forms of employment in Latvia are self-employment and remote work (work from home). In 2018, there were changes developed for the Labor Protection Law, which anticipated to define what exactly is remote work, to establish more specific standards for the self-employed in labor protection, and how an employer can organize labor protection in a company where

Currently, these changes in the Labor Protection Law have not been applied, so it is still unclear how the employer should act if their employees work from home. The planned changes anticipate partial regulation of these issues, but the situation is still unclear as to what should be done in the event of an accident occurring while working remotely.

Keywords: Labor protection, New forms of employment

employees do remote work or work from home.

**JEL Classification:** J28, K32

### MODERNA MUITA MŪSDIENU SABIEDRĪBĀ

### Aldis ČEVERS

Riga Technical University, Riga, Latvia
Corresponding author's e-mail: aldis.cevers@rtu.lv

**Kopsavilkums**. Lai valsts varētu veikt savas funkcijas kvalitatīvi un atbilstoši reālajai situācijai, ir jāveido modernu iestāžu sistēma. Moderna ir iestāde, kura efektīvi veic noteiktās funkcijas un uzdevumus, lai sasniegtu noteiktu mērķi. Arī moderna muita ir visu muitas lietās iesaistīto personu intereses objekts:

- valsts pārvaldei, lai saprātīgi tērētu resursus;
- biznesam, lai iespējami ātri, vienkārši un lēti pārvietotu preces pāri muitas robežai;
- sabiedrībai, lai novērstu apdraudējumus drošības, veselības, vides u.c. jomās

"Moderns" mūsdienu izpratnē nav tikai labi tehniski aprīkots, jāievieš arī modernas vadības metodes. Modernas iestādes darbs sākas ar plānošanu, kas sevī ietver iekšējās un ārējās vides apstākļu, sabiedrības vajadzību novērtēšanu. Pētot vidi ir jāprognozē iespējamās izmaiņas tajā, precīzi jānosaka iestādes funkcijas un uzdevumi, prioritātes, jābūt gataviem reaģēt uz to maiņu. Plānojot darbu tiek izstrādāta stratēģija, kurā ir ne tikai jānosprauž mērķis, jādefinē misija, vīzija un vērtības, bet arī jāparedz to realizēšanas mehānismi, rezultātu novērtēšanas metodes, lai pilnveidotu darba plānu nākošajam periodam jau augstākā kvalitātē un atbilstoši aktuālajai situācijai. Lai sasniegtu noteikto mērķi, muitas darbs ir atbilstoši jāorganizē:

- jāveido aktuālajiem apdraudējumiem un riskiem atbilstoša organizatoriskā struktūra;
- personālresurss jāpilnveido atbilstoši situācijai;
- jāmodernizē muitas darba metodes un procesi;
- jāpilnveido iekšējā un ārējā sadarbība: no informācijas apmaiņas līdz pētījumu organizēšanai, resursu piesaistei un reģionālajai muitas politikai.

Pie samērā līdzīgiem apdraudējumiem, muitas iestāžu darba plānošana, organizācija un novērtēšana pasaulē joprojām stipri atšķiras. Pasaules mērogā pamats šiem procesiem ir ielikts jau 2005.gadā Pasaules Bankai izdodot Muitas modernizācijas rokasgrāmatu. Tas, ka muitas jomā ir nepieciešami pētījumi, ir fiksēts jau PICARD 1.konferencē 2006.gadā Briselē, kā arī nosprausti to virzieni. ES integrācijas kontekstā uzmanība šobrīd ir pievērsta muitas speciālās izglītības pilnveidošanai un nostiprināšanai atbilstoši EK noteiktajām kompetencēm, kā arī muitas attīstībai un modernizācijai tālākā laika periodā — līdz 2030. gadam.

Modernai muitai nav jābaidās izvirzīt sev novērtējamus uzdevumus un izstrādāt precīzu rezultātu novērtēšanas sistēmu, izmantojot visas funkcijas un uzdevumus aptverošus indikatorus un kritērijus, lai veiktu darba plānošanas un organizēšanas pilnveidošanas un uzlabošanas pasākumus.

**Atslēgas vārdi**: valsts funkcijas, muitas funkcijas, publiskās administrācijas organizācija, veiktspēja, rezultātu novērtēšana.

JEL Classification: H11

# DEVELOPMENT OF CUSTOMS FUNCTIONS AND CRIMINAL LAW PROTECTION OF THE VALUES PROVIDED BY CUSTOMS

### Toms ČEVERS

University of Latvia, Riga, Latvia

Corresponding author's e-mail: toms.cevers@gmail.com

Abstract. The article outlines changes in customs functions over the time considering the growing complexity of public relations meanwhile maintaining public safety as the overarching goal of customs activities. Taking into account intensification of international movement of diverse goods in the present day protection of internal economic security cannot be recognized of a prior importance — activities of customs authorities especially within international legal framework increasingly have become focused on eliminating the danger that can be created by the use of specific movable items whose economic value is not decisive. The Criminal Law of the Republic of Latvia regulation, more specifically sanctions and composition of certain offences related to the illegal international movement of goods, has been analysed in historical and teleological perspective to uncover the way criminal law corresponds with objectives of customs action ensuring the same values.

**Keywords**: Criminal law functions, Customs, Customs functions, Illicit trade, International circulation of goods

**JEL Classification:** K14

# WORKERS SATISFACTION WITH WORKING CONDITIONS IN OPEN-TYPE OFFICES

### Velli PARTS<sup>1</sup>, Piia TINT<sup>2</sup>

<sup>1,2</sup> Tallinn University of Technology, Tallinn, Estonia Corresponding author's e-mail: <u>piia.tint@taltech.ee</u>

**Abstract**. There are many definitions and explanations for job satisfaction. Some of the authors indicate that the salary mainly influences on workers' satisfaction, but it depends on the job character. Speaking about teachers, some studies show that salary has only a slight effect of work satisfaction. The workers have been understood that the working conditions and the relationship with the other workers has a great effect on work results and satisfaction psychologically. The current study is carried out in the big factory office (open-type workplaces, 220 workplaces).

**Methods**: The measurements of working conditions and a questionnaire were undertaken amongst the Estonian and Russian- speaking workers. Psychosocial work factors (stress, somatic symptoms, depressive symptoms, burnout, and sleep disorders) were measured using the questionnaire worked out by the authors. Descriptive statistics and Pearson's correlation (*r*) were used to analyse the data.

**Results:** The analysis is based on 220 workplaces in a 20 years old building (opened-type office). The results of measurements of working conditions showed that the most important is the possibility to arrange the workplace by the worker her (him) self. The direction of the table to the window, the ventilation organized so that the cold air would not to blow on the workers etc. The people have different demands to the lighting of the workplace, although we cannot forget the minimal lighting norms in the office rooms (>300 lx). Some people like working in dark, it is dangerous for sight-seeing.

The positive work-related psychosocial relations usually develop if the work-load is not over the human possibilities. Secure work-family balance is also important. The high mean score was also for the somatic symptoms.

There is a significant enough positive correlations between the following factors: satisfaction with work and rewards, work and family balance and rewards, social relationship at work and social support from colleagues, support from management, respect and social relationship at work. Most of the psychosocial factors correlated statistically significantly with burnout, cognitive symptoms and sleep disorders. Psychosocial risk factor as work and family balance, showed positive correlation with all workers.

Conclusions: The opened-type offices as a rather common of work organization in nowadays office-rooms. The worst assigned in the open-based offices were the microclimate conditions that were not in order and as there was 220 people in one room, it was too noisy. The personal phone calls were not allowed in this room. Work-related psychosocial risk factors such as quantitative demands (work load), emotional demands, work pace and role conflicts were not dependent of workplace organization (one and two workers in one room or 220 in one room). Some stress was noticed in the factories office-rooms' workplaces that were near to the rest room where again the noise of speaking disturbed the workers working in the same time.

Keywords: Opened-type offices, Workers' wellbeing, Psychosocial factors.

**JEL Classification:** I3

# STRATEGIC PURCHASING OF HEALTH CARE SERVICES: POSSIBILITIES FOR REFORM IN CASE OF LATVIA

Māra PĒTERSONE 1, Kārlis KETNERS 2, Ingars ERIŅŠ3

<sup>1,3</sup> Riga Technical University, Riga, Latvia <sup>2</sup> BA School for Business and Finance, Riga, Latvia Corresponding author's e-mail: Mara.Petersone@rtu.lv

**Abstract**. The shift from passive to strategic purchasing of health care services for public health care organization is aimed to maximize public health performance with the resources available to it. Strategic purchasing as approach for selection and contracting of service providers according to certain criteria allows increasing the efficiency of the health care providers through increase in competition in terms of quality and performance, taking into consideration also accessibility and availability of care as constraints. In Latvia, one of the challenges of health care reform is adoption of new strategic purchasing procedures and criteria for National Health Service. The purpose of this article is to identify key determinants of the hospital behaviour and based on international experience propose strategic purchasing model taking into consideration also Latvian university hospital needs. The research base is OECD data on health care indicators, scientific publications of foreign researchers, and other materials have been used for the purpose of the study. The research is mainly based on the monographic descriptive method as well as the methods of analysis and synthesis. Main proposals for future reforms and policy includes patient-purchaser interaction model with defined rights for patients and responsibilities for purchasers, specific financing model to facilitate access to knowledge and provider decision autonomy for tertiary health care.

**Keywords**: Strategic Purchasing, Health policy, Health financing reforms, purchasing procedures and criteria

**JEL Classification:** I18, H51

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# ANALYSIS AND IMPROVEMENT OF FACTORS AFFECTING THE QUALITY OF WORKING ENVIRONMENT

### Matiss SMITINS<sup>1</sup>, Janis IEVINS<sup>2</sup>, Janis BARTUSAUSKIS<sup>3</sup>

<sup>1-3</sup> Riga Technical University, Riga, Latvia

Corresponding author's e-mail: <u>matiss.smitins@rtu.lv</u>

**Abstract**. In all organisations there are factors that have negative impact on the quality of working environment by reducing the volume of work processes and the quality of work, as well as endangers the safety of the employees and the organisation. Research has shown that there are sets of different factors to be classified in categories and identified at different levels.

The quality of working environment in organisations is based on the set of various influencing factors, mainly related to the behaviour of employees, their state of health, the culture of the company and the principles of its work, as well as, without doubt, the region where the organisation carries out its activities. The aim of the research is to characterise and analyse the effect of working environment quality factors on the safety of the employees and the organisation, as well as analyse the theoretical aspects of improving the quality factors of working environment.

In this research, using systematic literature analysis, grouping and qualitative content analysis research methods, the factors affecting the quality of working environment have been defined in order to develop the model for identifying the influencing factors and, consequently, to introduce the preventive measures for promoting sustainability and development.

By identifying groups of workers at risk in the working environment, the impact of the risks to the working environment on employees may be reduced by at least 20%, including the consequences of occupational diseases and accidents at work.

**Keywords**: Quality of working Environment, Safety, threats, Reduction of risk factors, Quality management.

### ASSESSMENT OF DAMAGE TO HUMAN HEALTH IN LATVIA

### Mihails URBANS<sup>1</sup>, Jelena MALAHOVA<sup>2</sup>, Vladimirs JEMELJANOVS<sup>3</sup>

<sup>1-3</sup> Riga Technical University, Riga, Latvia
Corresponding author's e-mail: Jelena.rtu@inbox.lv

**Abstract**. The assessment of the value of human life is necessary for the provision of state policy in the field of compensations, for families where, in case of an accident a member of the family died. In addition, this value is necessary to develop consistent safety measures for inhabitants, to ensure the functioning of the life insurance and health system. The assessment of the value of human life shows what amount of money the state is ready to invest in raising safetu, reducing risk factors and minimising the threats of technogenic environment. Currently there is no methodology for the assessment of the value of human life in Latvia. The research was carried out in order to identify the average cost of human life in Latvia in case of an accident related to the untimely lethal outcome for a human, as well as the costs of treating a victim in a hospital.

This problem is topical in each country, since average life values and treatment costs are different for each country. The methods for measuring the average value of human life are very different, so authors will compare the calculated values of life and treatment.

Keywords: Average value of life, Accidents, Disasters

### **SUBSECTION**

### "INTERNATIONAL BUSINESS AND LOGISTICS"

### INTERNATIONAL TRADE, IMPORT DEPENDENCY, AND RISKS

#### **Astra AUZINA-EMSINA**

Riga Technical University, Riga, Latvia

Corresponding author's e-mail: astra.auzina-emsina@rtu.lv

**Abstract**. Economic integration and international trade is continuously developing and growing phenomenon establishing a long-term tendency in advanced economies that results in an increasing reliance on imports and risks. The advanced economies are absolutely and relatively demanding and consuming more imports. The research aim is to detect the level of reliance on imports by individual countries and individual economic activities. In the research, the main data sources are symmetric input-output (IO) data that disaggregate every economy into 65 economic activities, describing existing technological relationships between productions processes of products. The research focuses on the European Union (EU) countries; however only 23 out of 28 EU countries publish IO data according to product-by-product classification and three countries do not ensure data availability in the time period examined (2010-2015); in result only 20 countries are examined in detail. The results argue that economic integration has increased and the levels of relative reliance on imported products have increased in all EU countries, except the United Kingdom (UK). The individual EU countries import a large proportion from other EU countries (intra-EU imports) not only from non-EU countries and the dependence on imports has increased by more than 3% points in Ireland, Latvia, and Lithuania. It is concluded that larger economies have weaker imports dependence (imports in Italy accounted only 12% of total use; in the UK - 14%; Germany – 17%), but medium-size and smaller economies are more open and economically integrated and higher reliance on imports (Ireland-32%; Lithuania-30%; Hungary-30%).

**Keywords**: Economic integration, Imports, Import dependency, Import reliance, International trade, Input-output

JEL Classification: C67, F15, F62, O52

# INTERNATIONAL FINANCE TRILEMMA AS A TOOL FOR BALANCED DEVELOPMENT OF AN ECONOMY

### Olga BOGDANOVA<sup>1</sup>, Ilja AREFJEVS<sup>2</sup>

<sup>1</sup>Riga Technical University, Riga, Latvia <sup>2</sup>BA School of Business and Finance, Riga, Latvia Corresponding author's e-mail: nameolga@yahoo.co.uk

**Abstract**. The structure of a financial system of economy plays crucial role for the development of a country and its international competitiveness. Policies are struggling to find the right balance between the three mutual complementary and at the same controversial trilemma elements: availability of financial services to consumers, safety and stability of a financial system and transparency of financial flows reflecting the level of shadow economy. The research focuses on the trilemma elements of a financial system, analysing the impact of the trilemma setup on the key metrics of economy in the international perspective.

The scientific aim of the paper is to explain the three chosen factors of the international financial trilemma, define the corresponding relevant metrics of economy and assess an impact of a disruptive expansion of financial technology on a trilemma balance.

The generally accepted quantitative and qualitative methods of economic science, inter alia comparative analysis, parameter estimation, grouping, economically mathematical modelling, synthesis, inductive, deductive, logically constructive and expert evaluation methods have been used for the research.

The main findings of the research show that a disruption disruptive expansion of financial technology affects different economies in different way depending on the financial trilemma state of balance.

**Keywords**: Financial trilemma, International benchmark, Availability of financial technology, Disruptions, International competitiveness.

JEL Classification: F38, F36, F50, F20

# DEVELOPMENT AND LOCATION OF LOGISTICS CENTERS: A SYSTEMATIC REVIEW OF LITERATURE

### Nadina MOROZA<sup>1</sup>, Inguna JURGELANE-KALDAVA<sup>2</sup>

<sup>1,2</sup> Riga Technical University, Riga, Latvia

Corresponding author's e-mail: <a href="mailto:nadina.moroza@gmail.com">nadina.moroza@gmail.com</a>

Abstract. In nowadays it is very important to find right place for your business. More important to find best place for warehouse, to decrease all possible costs, think about possibility to grow. Many companies is choosing to rent a warehouse, because they don't know, if they need to do big expenses in the beginning of business. Question, that worry many managers, is how to decide about best place where to rent or build a warehouse. Many authors think, that best place is place, where it is possible to decrease all costs transportation, land / rent costs. Warehouse is one of most important links between producing and delivery of goods to customer location. The aim of this work is to identify factors using systematic literature analysis method - literature overview, which are important of searching best place for logistic center. The systematic literature analysis method literature overview is an easy tool for selecting, systematizing and collecting data about the research subject, using different author's articles, which have already proved key information about this article. More than 8000 scientific articles were used to define 20 full text articles for deeper analysis. As a result of this research, author sees that one of the most important is to set warehouse near important transportation noodles, but it is very necessary to decrease environmental issues.

**Keywords**: Logistics; Warehouse location selection; Sustainability; Development.

**JEL Classification:** O18

# CONTEMPORARY THIRD PARTY LOGISTICS AND SUPPLY CHAIN: SCIENTIFIC LITERATURE OVERVIEW

### Dmitrijs SOLOVJOVS<sup>1</sup>, Aleksandrs KOTĻARS<sup>2</sup>

<sup>1,2</sup> Riga Technical University, Riga, Latvia
Corresponding author's e-mail: dmitrijs.solovjovs@rtu.lv

**Abstract**. Nowadays third party logistics (3PL) and Supply Chain companies intent to expand their knowhow and competences in different fields and to provide various integrated value-added services to their customers. An inductive analysis of 3PL and supply chain related literature was made, to define possible directions for development of contemporary 3PL and Supply chain companies. The first purpose of this paper is to discover modern trends of 3PL activities through investigation of literature. Second, to classify 3PL activities discussed in scientific literature. Third, to discover areas that request future development. The paper is based on systematic review and classification of recent abstracts linked to 3PL and supply chain activities that are published in scientific journals and databases. This paper is organized as follows. First part contains quantitative analysis of literature and description of developed directions. Subsequent part contains qualitative overview of nowadays 3PL and supply chain tendencies by each of pre-defined areas. Last part aims at providing conclusions and suggestions for further research. The key findings are as follows. Majority of studies of 3PL and supply chain activities are based on business cases or surveys that do not allow to propose conclusion about industry in general. Main emphasis in contemporary research is done mainly on knowledge-based services. For most of authors it is obvious that core logistics services are tended to be replaced by value-added supply chain services.

Keywords: Third party logistics, 3PL, Logistics services, Supply chain value.

JEL Classification: L90, M16, R40, R41

# THE POSSIBILITIES OF OPTIMISING THE QUANTITY OF RECYCLING SHELF READY PACKAGING IN RETAIL SECTOR

### Adriana STREKALOVSKA<sup>1</sup>, Stanislava KOVACHEVA<sup>2</sup>, Ivaylo IVANOV<sup>3</sup>

<sup>1-3</sup> University of Forestry, Sofia, Bulgaria
Corresponding author's e-mail: <a href="mailto:strekalovska@abv.bg">strekalovska@abv.bg</a>

Abstract. Retail Ready Packaging (RRP) or Shelf Ready Packaging (SRP) are so called secondary transport packaging and are design to be easy convert in display tray. They are very popular in fast moving consumer goods in retail sector in Bulgaria. The sector FMCG have the highest turnover in the country and requires re-design and re-think for the usage of packaging waste. In some aspects the retailers makes the rules for the industry. RRP and SRP bring mostly benefits to retailers with better time for stocking and improving the rest of in-store operations. The Bulgarian FMCG retail market nowadays is divided between few brands and the one with highest share from the market is Kaufland base on 59 stores and turnover of 1 572 523 thousand levs for 2018. Using case study methods for data analyse and SWOT analyse main findings are described. One of the main finding are the difference and possibilities of optimisation in quantity of recycled RRP and SRP based on factors like season, turnover and difference between the training for the employees.

**Keywords**: Recycling, Retail, Packages, Waste, Green cycle, Circular Economy, Fast moving costumers goods (FMCG).

JEL Classification: Q56, Q01