

ECONOMIC SCIENCE FOR RURAL DEVELOPMENT

1. Marketing and Sustainable Consumption

**2. New Dimensions in the Development of
Society**

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Time schedule of the conference

Preparation of the proceedings and organization: October 2014 – April 2015

Conference: 23-24 April 2015

Researchers from the following higher education institutions, research institutions, and professional organizations presented their scientific papers at the conference:

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Silesian University in Opava	Czech Republic
Estonian University of Life Sciences	Estonia
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Fulda University of Applied Sciences	Germany
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The international scientific conference "Economic Science for Rural Development" is organized annually by the Faculty of Economics and Social Development of Latvia University of Agriculture. The proceedings of the conference are published since 2000.

The scientific papers presented in the conference held on 23-24 April 2015 are published in 4 thematic volumes:

No 37 Production and Cooperation in Agriculture
Bioeconomy
Finance and Taxes

No 38 Integrated and Sustainable Regional Development

No 39 Rural Development and Entrepreneurship

No 40 Marketing and Sustainable Consumption
New Dimensions in the Development of Society

The proceedings contain scientific papers representing not only the science of economics in the diversity of its sub-branches, but also other social sciences (sociology, political science), thus confirming inter-disciplinary development of the contemporary social science.

This year for the first time the conference includes the section on a new emerging kind of economy - bioeconomy. The aim of bioeconomy is to use renewable biological resources in a more sustainable manner. Bioeconomy can also sustain a wide range of public goods, including biodiversity. It can increase competitiveness, enhance Europe's self-reliance and provide jobs and business opportunities.

The Conference Committee and Editorial Board are open to comments and recommendations concerning the preparation of future conference proceedings and organisation of the conference.

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We would like to thank all the authors, reviewers, members of the Conference Committee and the Editorial Board as well as supporting staff for their contribution organising the conference and preparing the proceedings. In particular we wish to thank associate professor Signe Dobelniece, assistant professor Zenija Kruzmetra, lecturer Baiba Miltovica, lecturer Lana Janmere, and assistant professor Juris Vuguls.

On behalf of the Editorial Board

Gunars Brazma

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THE EMPIRICAL METHODOLOGY OF MODERN MONOPOLIZATION PROCESS ASSESSMENT AS A SUSTAINABLE CONSUMPTION INSURANCE TOOL

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Abstract. The research "The Empirical Methodology of Modern Monopolization Process Assessment as a Sustainable Consumption Insurance Tool" provides a multi – perspective in – depth description of the nature, the occurrence sources, the development procedure and the internal conjuncture specifics of the present day monopolization process as well as providing an example of modern econometrical method application within a unified framework of market competition analysis for the purpose of conducting a quantitative competition evaluation on an industry – level, resulting in applicable outcomes, suited for practical use in both private and public sectors. The main question of the aforementioned research is the definition and quantitative analysis of monopolization effects in modern day globalized markets, while constructing an empirical model of the econometric analysis, based on the use of international historical experience of monopoly formations standings, with the goal of introducing a further development scheme for the use of both econometrical and statistical instruments in line with the forecasting and business research needs of enterprises and regulatory functions of the public sector. The current research uses a vast variety of monopolization evaluation ratios and their econometrical updates on companies that are involved in the study procedure in order to detect and scalar measure their market monopolizing potential, based on the implemented acquired market positions, turnover shares and competition policies.

Keywords: monopolization process, applicable econometrical modelling, competition level analysis, market conjuncture, industry development trends.

Jel code: D42, D43, D52.

Introduction

With the vast development of the modern business and trade, numerous former unquestioned and unchallenged visions of the market functioning paradigms, mechanisms and conformity of natural laws are being transformed, re-evaluated and analysed from various

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economic perspectives. Based on the classic A. Smith's theory, J. M. Keynes alternative approach and works of P. Samuelson, economic research is developing further among with the entire society, causally following and quickly reacting to newly emerging social trends. It states in "An Inquiry into the Nature and Causes of the Wealth of Nations" Book IV, Chapter VIII: "Consumption is the sole end and purpose of all production and the interest of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer". Thus, the inventor of "invisible hand" concept underlines that no form of competition, regardless of its specifics and market conjuncture composition, is free from or can neglect the maximum level of consumption capacity, made available by the current demand (Smith, 2007).

It is argued in "Foundations of Economic Analysis": "Every good cause is worth some inefficiency". Thus, it may be argued that for the sake of economic stability maintenance and social utility maximization, a shift from perfect or near – perfect competition can and to some extent, should be made. (Chamberlin, 2010)

It is explained in "The General Theory of Employment, Interest, and Money": "The difficulty lays not so much in developing new ideas as in escaping from old ones". Consequentially, this undoubtedly widely respected authors suggest the non – conventional approach to implementing new elements into the modern day economic theory while being able to take a fresh, innovative look those seemingly common aspects of market interactions (Keynes, 2011).

Nevertheless, there is one particular existing field of economic evaluation that has not seen any changes in the public opinion since the mid XIX century. It is still as well as more than a hundred years before, being seen as concentration of "capitalism evil" that bring only losses and price increasing to all members of the society (Tarbell, 2012). The currently addressed phenomenon is a legal equity, profiting from the position of absolute monopoly, so attractive and wanted by any actively functioning company, influencing all aspect of modern day economic processes, significantly changing the composition of any given market conjecture and reshaping all forms of business conduction possibilities.

The above mentioned position is being obtained in the process of monopolization – one of the most topical phenomena of both developed and developing economies of the current century, significantly rising in importance of full understanding within the context of the world financial crisis aftermath. The composing element of any national economy, namely, markedly involved companies are forced to adapt to the process of globalization through finding new, sometimes quite unorthodox ways of securing the conducted business profitability and liquidity, thus, consequentially increasing competition within any given market that frequently leads to market consolidation tendency increase, while excluding a large portion of inefficient companies from the market, leading to natural increasing of the industry monopolization level. (Skoruks, 2014)

The research objective of the current research, taking into consideration modern day economic challenges and above described tendencies, is to, with the use of analytical,

comparatively – economical, coherently – logical and economic index analysis methodologies, conduct a full – scale study on the nature of monopolization process, detect its appearance sources, define the caused effect in modern economic systems as well as analyse and evaluate the main monopolization influence factors that shape conduction of the process according to various industries market conjecture specifics.

The research hypothesis of the current study may be defined as follows: modern day small open economies undergo a natural, consequentially – economic based and supported by internal competition, process of market consolidation, which leads to the acceleration of individual monopoly power concentration in specified niches, especially seen in industries that are restricted from the effects of import due to their functioning specifics.

The research object of the current research is defined as five structural industries of Latvian national economy, their market conjectures and specifics of competition conduction as well as revealed monopolization trends and its development algorithm. An additional focus of attention will be given to the mobile communication market along with involved companies, their supplied services, pricing systems, management strategies, related additional products, empirical demand, supply and client loyalty in the specified market and the above given factor cluster influence on the process of monopolization within the framework of the evaluated industry. The above mentioned focus – market had been chosen due to its internal conjuncture configuration as a system, naturally secured from macro – external competition such as import and international equity infiltration due to the regional specifics of providing telecommunication services.

The main goals of the current research may be defined as follows:

- to define the existence substantiations, causes and consequences of monopolization process;
- to define the positive and negative consequences on monopolization process conduction in the modern day economic systems;
- to construct an empirical quantitative model that would allow to evaluate and conduct scientific study of monopolization process combining the main existing methodologies with innovative causally – coherent approach;
- to conduct a study of the process of monopolization, its structured development and composition algorithm with the use of the developed model;
- to conduct a verification test of the current study's research hypothesis with the use of the developed model, consequentially confirming of neglecting its rationality and scientific applicability.

The following assessment methods shall be used in order to conduct the current research: monographic analysis, secondary statistical data analysis, graphic analysis, econometrical modelling, mathematical criteria analysis, quantitative regression analysis, qualitative resulting interval range analysis and data grouping method.

The following sources were used in order to carry out the research, conducted in the current research: printed scientific literature and fundamental researches (Keynes, 2011), (Coase, 2010), (Fisher, 2012), online journals (Foster, McChesney, Jonna, 2011), electronically public accessible market and enterprise data, electronic university databases, published legislative literature (Judith, 2011).

In order to establish a scientifically clarified field of analysis, the following assumptions are being established and further taken into account:

- all industry supply participants, who are entitled to an individual market share under five per cent of the gross market capacity shall be merged into one cluster unit of statistical data until its cumulative scalar value reaches the aforementioned minimum benchmark of five per cent;
- the above mentioned merged data clusters, regardless of the number of included participants, possess all the corresponding economic characteristics of a single rational market actor.

Additional and complementary services that are not primal constituent elements of the product core benefits are being seen as minor influence factors that have a limited effect on the market share fluctuation between competing parties.

1. Theoretical background of the conducted research

Monopoly (from Greek *μονο* (mono) – one and *πωλέω* (poleo) – to sell) is a unique advantage situation in any state, industry, organization or branch that allows acquiring benefits from such position. In terms of economic evaluation, a monopoly is defined as a special market situation, ensuring a higher level of profitability on the behalf of price growth and production cost cutting with the use of the so-called monopoly position advantages.

Such position is wanted by any entrepreneur due to on one hand the neglecting of competition risks, growing marginal costs, sale amount fluctuations and, on the other hand, the ability to influence both pricing and social preferences through the supply amount changes (Hayek, 1944).

The above given characteristic of the absolute monopoly market type from the perspective of modern economic reality is to a certain extent, outdated, not reflecting the true nature of “money–product–money” link internal casual relations, for the monopolist is dependent on a voracity of influence factors, regarding price rising, such as, consumption rates, consumer disposable income, demand flexibility, but mostly – the common economic scene that dictates the rationalization of prices in order to maximize the actual profit. Nevertheless, the public opinion is still largely stereotypical, the most powerful and persistent of which is the assumption of “monopolies dictating the prices” (Fisher, 2012).

The main reasons for emerging, adaptation and successful functioning of an absolute monopoly are several strictly economic reasons that are listed below:

- there is only one active supplier in the market;

- the sole market supplier is a rational market actor;
- there are now replacement products (goods or services) available;
- existence significant, almost unconquerable barriers for new suppliers to enter the monopolizes market;
- monopoly's supply amounts are equal to those of an entire industry, which can be interpreted as a down-lined linear chart (Robinson 2012).

It would be worthwhile to describe the main barriers, implemented by the modern monopolies in order to better understanding of monopoly advantages:

- legal – laws, governmental decision, service of general economic interest conduction entrustments;
- economic – lack of capital or any other type of resources, excessive means of production single – based concentration, cost cutting abilities, information, legally obtained as well as of insider nature, or any other market influence tool due to their concentration in the hands of the monopoly;
- technology – experience, specifics methods of efficient business conduction or manufacturing protected as commercial secrets or individualized know – how (Judit, 2011).

Currently, a vast variety of singularised methods of monopolization level assessment exists, such as, for example, the Lerner Index (Lerner, 1934), the Herfindal – Hirshman Index (U.S. Department of Justice...,2010) or the evaluation of price flexibility. However, the above mentioned methods are either concentrated on a single legal equity individual monopoly power measurement or are aimed on a zero – momentum, “time – frozen” market cluster analysis, which, in both cases, is inappropriate for a medium – term industry – level monopolization trend evaluation.

2. Concept of the developed monopolization process evaluation methodology

The singularised methods of monopolization level assessment, described in the previous section of the current research, are arguably mutually incoherent and, thus, do not enable a prevalence of fully consistent combination of simultaneously applicable evaluation tools. Thus, it would be rational and most beneficial for both private market actors and public supervisory bodies to have access to a quickly disposable, scientifically justified and easily applicable quantitative model, allowing the conduction of an industry or market level analysis of monopolization tendencies, providing both numerical benchmarks and their qualitative interpretations within a defined annual framework.

The developed model will combine existing methods of both specialized monopoly and empirically – econometrical data assessment with author proposed innovation, consequentially designing a combined quantitatively – qualitative tool with cheap installation, easy implementation and demonstrative result outputs, suitable for use in both state sector for

regulatory reasons and private equities with the goal of business planning or managerial tasks performance improvement.

The use of already existing methods will allow to prosper from previously gained international experience, while implementation of newly developed correlations and additional influence factors shall provide a topical transformation of the necessary nature, inflicted by globalized merging market clustered composition units, thus, creating a synergetic effect, consequentially improving the existing approaches while preventing innovative tool of assessment from untested and questionable fluctuation, reasoning scientific heritage with rational updates on a scalar scale, reaching far more flexible, fundamental and coherent model composition.

The main foundation of the developed complex model of monopolization process evaluation is the step-by-step assessment of available data from econometrical perspective with the perspective acquired scalar result qualitative evaluation, allowing the conduction of a complex, multi-scale analysis, suitable for all economic field of activity, meaning that the current model shall be suitable for evaluations of any national economy industry.

The developed model composition will be further described in the following sections in order to provide a complete insight and sufficient understanding of the internal quantitative correlations between the model's composing structural elements as well as working out a steady implementation algorithm, while creating a qualitative interpretation methodology for assessing the quantitative scalar outputs of the conducted multi-factor analysis.

In order to verify the research hypothesis of the current study, consequentially approve or decline its conceptual formulation, the developed model shall be implemented, tested and statistically leveraged in order to prevent any minor calculation imprecision on the five following industries on the Latvian national economy:

- industries, unaffected by import flows: mobile communication market, banking sector and multi-purpose retail trade market;
- industries, affected by import flows: brewing industry and pharmacy market.

The reason for selecting the above mentioned industries is the need for various situation testing of the developed model, which can be reached only by implementation testing within the framework of different and partially unrelated sectors of the economy, while defining the effect of import on market consolidation processes and, consequentially, more rapid monopolization trend strengthening.

3. The quantitative functioning principles of the developed methodology

Using the information, described in the above given section of the current research, it can be stated that the modern econometrical data assessment methods and the existing monopolization evaluation approaches share the following basic quantitative market data clusters: individual market share dynamics, demand flexibility – price fluctuation correlations, number of competing suppliers in the entire industry.

These elements undergo an individualized evaluation, according to the chosen methodologies and the results of the conducted analysis are re-interpreted separately, forming unrelated scales of decision making.

Taking into account the multi-scale evaluation, conducted within the framework analytical methodology assessment section of the current research, it is necessary to update each studied methodology by creating a more transparent quantitative basis for influential factor group and integrating them into a single confound of a complex econometric multi-function analytical model.

The most relevant case of natural monopolization process conduction can be seen in a situation that uncovers A. Smith's "invisible hand of the market" (Smith, 2007) concept's hidden essence, serving at the same time as the source of critics against both neoliberalism tendencies and orthodox free competition schools.

The above mentioned phenomenon can be defined as follows – regressive competition. Regressive competition is a market situation, achieved by strong internal competition forcing the suppliers out from the market, while new competitors are unable to infiltrate the current market due to the lack of resources and high industry, based on constant fluctuation of the market conjuncture, exclaimed by the level of internal competition.

Consequently, the market becomes a closed system with no entrance possibilities, but the existing suppliers are continued to be pushed out by their more efficient rivals, thus, leading to natural market consolidation until the state of oligopoly and enabling the process of monopolization to begin its conduction and development along with the evolution of the market.

Another way of regressive competition to come into place is a wide-scale economic crisis that in a natural way forces part of the suppliers to leave the market, while the remaining competitors engage each other in drastic measures of market share redistribution.

Therefore, the complex model of monopolization process evaluation must include all factors that influence market share dynamics, individual company monopoly power fluctuation evaluation, competition and its effects analysis, current gross position of all suppliers of the industry in terms of sale amounts, internal and external possibilities for market conjuncture changes and last but by no means least, the attractiveness of the specified market for external infiltration, while assessing the rationale want and practical possibility of new supplier involvement into the market in terms of monopolization process future diagnosis. The indexes are additionally integrated into the structure of the current model with the use of statistical weight system, allowing the synergetic effect of mass coherence to take place. The conceptual structure of the current model can be seen in the Table 1.

Table 1

The quantitatively – integrated indicator system of the developed methodology

Title of the indicator	Indicator functional group	Weight of the indicator functional group	Weight of the indicators within a single functional group
Gross current monopolization level index	Evaluation of the current level of market monopolization	65%	25%
Gross current monopolization level consistency index			15%
Net internal monopolization stimulus index			15%
Net external monopolization stimulus index			15%
Individual monopoly power concentration index			30%
Current monopolization level net volatility index	Evaluation of the market monopolization potential and further development possibilities	35%	25%
Net competition effect index			40%
Gross monopolization potential index			35%

Source: author's construction based on previous authentic research (Skoruks, 2014)

From the information, given in Table 1, it can be seen that the currently developed model inflicts a dually – complex method of data analysis, quantitatively assessing both current monopolization status and future monopolization process development potential in an econometrical, coherent way within the framework of integrated index system.

It would be rational to define and analytically describe the calculation and quantitative casual links between the indexes that form the composition of the current model, while giving an overview of qualitative assessment methodology, used for interpretation of the gained quantitative analysis result evaluation.

4. The quantitative structure of developed methodology

The updated version of the developed complex model of monopolization process evaluation consists, in comparison to its initial composition (Skoruks, 2013), of eight indicators that are integrated into a unified econometrical system of multifunctional evaluation. The quantified system itself is based on correlative dynamic equation modelling approach, creating a combined system of mathematical calculation, consequentially reflecting the above mentioned indicator value in coherent and mutually – comparable manner, which had been updated as to provide analytical outputs in per cent metrics. Such development may be regarded as an improvement to the previous state of affairs (Skoruks, 2013) due to a higher mutual transparency of a unified measurement scale, which uses a single value interpretation system.

On the base of Microsoft Excel program, an electronic template, consisting of primary and secondary data inserting area, analytical input and output field as well as total summarized result quantification cells. While the current model provides economically accurate and

methodologically verified data analysis on up-to-date, fully digital basis, qualitative interpretation of the acquired scalar results is crucial for making correct decision.

Due to the recognition of the need for quantitative result qualitative interpretation, the current model has an additional explanatory feature, allowing the conduction of a fully transparent scientific market analysis. An illustration of the developed methodology's electronic template, updated to meet the newly emerged challenges, is provided in Table 2, which is available below.

Table 2

The illustration of the developed methodology's updated electronic template

Nr.	SUM (1;N)	Evaluation of the current level of market monopolization					Evaluation of the market monopolization potential and further development possibilities		
	SUM (A;Z)	SUM CIdx1	SUM CIdx2	SUM CIdx3	SUM CIdx4	SUM CIdx5	SUM PIIdx1	SUM PIIdx2	SUM PIIdx3
		9.44%	51.94%	9.44%	6.76%	13.81%	97.13%	88.39%	12.50%
	Company	CIdx1	CIdx2	CIdx3	CIdx4	CIdx5	PIIdx1	PIIdx2	PIIdx3
1	A	3.27%	98.03%	3.27%	2.30%	4.79%	2.45%	9.31%	12.50%
2	B	0.33%	19.76%	0.33%	0.32%	0.26%	1.56%	7.04%	
...	
N	Z	0.96%	58.02%	0.96%	0.61%	0.05%	0.89%	7.41%	

Source: author's construction based on previous authentic research (Skoruks, 2014)

5. Implementation of the developed methodology: verification of the research hypothesis

It would be most rational to analytically summarize the acquired results of the conducted experimental implementation of the developed methodology in order to transparently compare both quantitative and qualitative aspect of the introduced models' applicable functionality. The quantitative results of the developed methodology's experimental implementation, carried out while being based on the market data, available for the period of 2013 – 2014, can be seen in Table 3.

Table 3

The quantitative results of the conducted experimental implementation

Title of the indicator	Industry used in the model implementation experiment (2013-2014)				
	Mobile communication market	Banking sector	Multi-purpose retail trade market	Brewing industry	Pharmacy market
Gross current monopolization level index	83.91%	75.93%	79.69%	39.89%	17.11%
Gross current monopolization level consistency index	75.33%	71.19%	59.29%	11.11%	9.09%
Net internal monopolization stimulus index	81.99%	59.67%	63.77%	14.59%	12.48%
Net external monopolization stimulus index	81.95%	33.17%	37.91%	21.37%	20.53%
Individual monopoly power concentration index	73.89%	35.29%	61.81%	16.23%	14.47%
Current monopolization level net volatility index	33.79%	19.17%	14.32%	15.29%	11.27%
Net competition effect index	65.11%	31.19%	29.11%	17.59%	13.61%
Gross monopolization potential index	67.93%	41.01%	35.67%	21.23%	16.87%

Source: author's construction based on previously conducted research (Skoruks, Shenfelde, 2014)

Acknowledging the information, provided in Table 3, it may be argued that the developed complex model of monopolization process evaluation is a precise econometrical tool of market research conduction, able to leverage the available statistical data with the selectively implemented weight system, leading to a multi-functional, economically sustainable and scientifically justified model of market data analysis. With the goal of creating a comparison between the quantitative experiment results in an easily interpretable manner, the developed model had been enabled to automatically produce a qualitative measure of interpretation of the aforementioned numerical outputs. The qualitative interpretation of the acquired quantitative result of the conducted econometrical experiment can be seen in Table 4.

Table 4

The qualitative results of the conducted experimental implementation

Title of the indicator	Industry, used in the model implementation experiment (2013-2014)		
	Current level of monopolization	Potential of further increasing of the current level of monopolization	Cumulative total level of monopolization
Mobile communication market	High	Medium	High
Banking sector	Medium	High	Relatively high
Multi-purpose retail trade market	Medium	High	Relatively high
Brewing industry	Low	Medium	Low
Pharmacy market	Low	Low	Low

Source: author's construction based on previously conducted research (Skoruks, Shenfelde, 2014)

The information, given in Table 4 verifies that the level of monopolization in the mobile communication, multi-purpose retail trade markets and banking sector ranges from relatively high and high, while in the brewing industry and pharmacy market it has been defined as low, indicating that the industries, open to import infiltration, have two times lower combined

monopolization evaluative coefficient then those markets that are simultaneously localized and excluded from the influence reach of external competition.

Conclusions and proposals

Summarizing the outcomes of the conducted research within the structural layout of the current research, acquired quantitative analysis result and their profound qualitative evaluation, the following conclusions can be made:

1. The model, developed by the conduction of the current research, had described and confirmed the duality of monopolization process conduction due to the nature of its boosting economic influence factors.
2. The developed model had proven that irreparable resources, technologies and know-how can and mostly does stimulate conduction of monopolization process.
3. The conducted research testifies and confirms the research on national economy structural crisis stimulation of monopolization process within those industries that are undergoing a recession.
4. The conducted research had proven the much higher level of analytical precision of methods that use market share data, rather the just the number of supplier, functioning in the defined market, evaluating industry monopolization process development.
5. The research hypothesis of the current study has been fully confirmed: indeed, modern day small open economies undergo a natural, consequentially – economic based and supported by internal competition, process of market consolidation, which leads to the acceleration of individual monopoly power concentration in certain niches, especially seen in industries that are restricted from the effects of import due to their functioning specifics.
6. The conducted research has proven the industries with low demand flexibility are more tended to be monopolized due to non-elastic total natural market capacity and inability of the demand amount to operatively relocate.
7. The conducted research had proven that monopolization can and must be assessed by applying coherently-integrated econometrical models, thus leading to a much higher level of scientific and applied analytical precision than it may be achieved by individual case ad hoc evaluation.

Summarizing the conducted research, developed complex model of monopolization process evaluation and its implementation results, the proposals can be made:

1. The further analysis of monopolization process should be conducted as a systematic approach to econometric modelling and rational market relation causality in order to establish a scientifically justified tool for market efficient functioning measurement with the empirical goal of achieving consistent consumption of a free trade system basis.
2. The empirical definition of monopolization process should be revised within the context of natural market consolidation tendencies and total demand amount fluctuation trends.

3. The monopolization tendencies, existing in small open economies, should be acknowledged as markedly justified and economically rational, while still leading to a cumulatively negative social effect, which may undermine consistent consumption.
4. The recognition of a certain market as monopolized should only be made only with the use of scientifically tested and experimentally verified methods of assessment, with the use of "natural monopolization process dual perspective" presumption.
5. It would be rational to continue the adjusting and development of antitrust regulatory and legislative basis within the framework of modern day socially – economic challenges and globalized market state of affairs in order to on one hand neglect the negative side effect, caused by monopolies, and, on the other hand, to abstain from regulatory interference in situation when monopolization process has not yet reached the negation stage in order to give the market a chance to leverage its internal functioning, thus ensuring a coherent and economically justified resource allocation system, enabling the development of liberalised, consistent consumption orientated markets.

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INTEGRATING STANDARDISATION/ADAPTATION IN INTERNATIONAL MARKETING STRATEGIES: COMPANIES IN LATVIA

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Abstract. Developing an international marketing strategy, companies need to make decisions on the standardisation/adaptation degree for each marketing strategy element. Scientific research results show that it is impossible to make a recommendation that could suit any company. The most successful companies are those that make decisions with respect to standardisation and adaptation according to the circumstances and demand on each export market as well as on the basis of the company strategy and the resources available.

Product standardisation on the international market would cause significant savings for the company on the global scale. It is usually possible to standardise a product to a certain degree, as the necessity to adapt products to the needs of consumers in various countries, due to legal, cultural and economic reasons, does occur.

The aim of the research presented in this article is to assess the practices for the standardisation and adaptation of the international marketing strategy elements in the largest Latvian exporter companies. The study also evaluates the influence of international marketing strategy elements on the export business results of the companies.

Keywords: international marketing, standardisation, adaptation, export performance.

JEL code: M31

Introduction

The use of standardisation and adaptation and their influence on export business performance have been the object of international research for the last 50 years. The trend towards product standardisation can be observed in the development of multinational companies (Katsikeas et al., 2006). However, there are very few examples of global standardisation in the world, regional adaptation is more common. The latest trends in scientific research show that standardisation and adaptation, when successfully applied to market conditions, cause better export business performance.

The aim of the research is to assess the practices for the standardisation and adaptation of the international marketing strategy elements in the largest Latvian exporter companies. **The research object** is standardisation and adaptation in international marketing strategies. **The tasks of the research** are to obtain measurements on the degree of standardisation/adaptation for export marketing strategy elements, to compare them to the

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preferable degree of standardisation and adaptation specified by the experts, to evaluate the influence of marketing strategy elements over the export business results of the companies, and to draw conclusions on the application of standardisation/adaptation in the marketing strategies of Latvian exporter companies.

Over the course of the study, the practices for the standardisation and adaptation of the international marketing strategy elements were assessed in the context of global academic research. The study is limited to the expert evaluation of a selected product category and specified export markets; the current standardisation/adaptation degree was assessed without investigating its influencing factors.

The research method applied is Expert survey of eight specifically invited marketing and exports managers from Latvian exporter companies, representing the following industries: dairy, confectionery and alcoholic beverages product production, pharmacology, transport, IT services. Experts were selected among companies represented in "TOP 100 Best Exporting Brands from Latvia" – a research conducted by Latvian Chamber of Commerce and partners, identifying the largest and most visible export companies which comprise 20% of total export value in Latvia (Latvijas izcilāko eksporta zīmolu pētījums..., 2013). Out of ten selected experts six responded, therefore two other experts were invited providing wider scope of industries covered.

The most often specified export markets that were evaluated are: Russia, Germany, Lithuania, Estonia. The Expert survey was conducted in October–December 2014. Experts represented the following companies: SIA "NP Foods", A/S "Rīgas Piena Kombināts", SIA "Pure Chocolate", SIA "Latvijas Piens", A/S "AirBaltic", SIA "ELVA Baltic", A/S "Grindeks", AS "Latvijas Balzams". In the following compilation of the results of the research, these responses will be used only in a generalised form, without singling out any specific companies.

Research results present an evaluation by experts on the standardisation and adaptation practices in the companies according to four main marketing strategy elements: the product, the price, the promotion and the place (distribution), dividing them into 30 more detailed sub-elements (Table 1). Assessing the degree of standardisation/adaptation, the respondents used a 100-point scale, whereby '1' meant maximum standardisation, and '100' meant maximum adaptation. The values on this scale can be easily transformed into percentages, for a more illustrative representation and interpretation of the results.

The evaluation scales, as well as 30 sub-elements of marketing were introduced as the recommendation from Theodosiou M., Leonidou L. C. (2003), who have analysed 36 empirical studies in the field of marketing standardisation and adaptation since the first relevant scientific publication in 1975. The expert questionnaire was developed, taking into account the recommendation to focus the research on a specific product or a product line, instead of evaluating practices across the whole company.

Theoretical Background

Decision to export. The drivers that encourage companies to start their activities on the international scale are reviewed in scientific literature, and are as follows: a small or highly saturated market, short product and technology life cycles, an excess of resources and production capacity, the company's unique competence in a particular field, a desire to follow competitors or clients abroad, a tendency towards growth and towards a more international orientation for the company, a response to unplanned orders from abroad, an integration to minimise expenses and increase control (Bradley, 2005). However, the definitive decision is made by the company management: "export can be conceptualized as a strategic response by management to the interplay of internal and external factors" (Cavusgil and Zou, 1994).

By accepting this challenge, entrepreneurs face the necessity to make strategic decisions that would define their international marketing strategy in the future.

Standardisation and adaptation. During the past five decades, the field of exporting has paid particular attention to the forces that drive adaptation or standardisation of international marketing strategies. Many studies have focused on the factors that influence the level of adaptation and attempt to give recommendations how firms should standardise/adapt their marketing across nations in order to enhance the performance. According to literature analysis made by Schmidt and Kotulla (2011) among these studies there are 5% that contain valuable theories for deriving hypothesis-based recommendations. For instance, Alden, Hoyer and Lee (1993) base their explanations on humour theory and argue that firms have to standardize their humorous advertising across nations with regard to specific culture-free elements of humour. Several institutional theory supporters (Bianchi and Ostale, 2006; Shoham et al., 2008; Hultman et al., 2009) suggest that firms have to adapt their products to foreign countries macro environments in order to become legitimized abroad. Cui and Yang (2009) use congruency theory to prove that firms have to adapt their advertisements to foreign countries in order to increase consumer responsiveness.

There are opinions that the most important marketing strategy element is product (Schmidt, Kotulla, 2010), because the products of a firm constitute the firm's central market offering, whereas pricing, distribution and promotion represent supporting factors for conditioning, delivering and promoting this market offering (Kotler, Keller, Brady, Goodman, Hansen, 2009). Furthermore, decisions on international standardisation/adaptation of products are the most cost-relevant ones and therefore directly related to a firm's financial performance (Walters, Toyne, 1989). Product and promotion are the most researched marketing strategy elements in the scientific literature. The other elements — price and distribution — have been studied more actively only since the 1990's (Waheeduzzaman, Dube, 2004).

Advantages of product standardisation and adaptation. Product standardisation on the international market can create significant savings for the company on the global scale: the savings would be created by the combination of production, transport and distribution parameters. However, an absolute standardisation is not possible. It is usually possible to

standardise a product to a known degree, as the necessity to adapt products to the needs of consumers in various countries, due to legal, cultural and economic reasons, does occur (Vrontis, 2003). The necessity for product adaptation can occur also due to economic causes. If the incomes of foreign customers are not sufficiently high, they may not be able to purchase the product sold by the multinational company on the local market. This is why the company may need to develop a cheaper product.

Costs of product adaptation. Adapting some products is cheap and can significantly influence demand. The adaptation of packaging has comparatively low costs, and exporters use it for their product to comply with the legal and environmental requirements. Before making a decision, the costs of adaptation must be compared to the costs that would occur due to the loss of sales if the products were not adapted. A way for the company to minimise the costs of product adaptation is to standardise as much as possible, leaving only some minor details for adaptation in the end. The advantages of product standardisation are broadly reviewed in the international literature on marketing. However, there are very few examples of global standardisation in the world, regional adaptation occurs more often. Also, scientific studies have not definitively confirmed the positive influence of product standardisation on the global marketing results (Townsend, Yenyurt, Denigonul and Cavusgil, 2004).

Pricing on the international market is more complicated than on the local scale due to: the various degrees of legal control, bigger market variability, increase in price due to exports, currency fluctuations, fixed and flexible prices, influence of retailers (Bradley, 2005).

Even though the local market likewise can be segmented and offer differing pricing strategies for each segment, the international market naturally produces more segments. The company may have many competitors in some countries, having limited opportunities to alter the price, while in other countries the company may almost be a monopoly. Stereotypes about product's country of origin limit the pricing range. Price escalation in exports means that each stage of the distribution channel has its own mark-up. As the length of the distribution channel grows, so does the retail price of the product.

In the context of the marketing mix, exporter companies have the most difficulty standardising the **distribution channels**. Each country has its own distribution system related to its cultural, economic and legal circumstances. Product distribution in a particular country is influenced by a number of factors: the attitude of the public towards small private shops, salary levels in the retail sector, regulations on the working hours of retail shops and on the size of the place of business, the financial capability to accumulate large savings etc. Each country has its own peculiarities in its retail environment: large retail chains, small shops, direct cooperation with producers, distribution centres, product mail orders (Porter, 1986). If the volume of sales is small, it is usually easier for the company to sign a contract with a distributor. Of course, this decision results in less control but the resources of small companies are usually too limited for these companies to take distribution in their own hands.

Advantages of promotion standardisation and adaptation. The savings that can be obtained by standardising promotion materials are not as big as those obtained due to product standardisation but they can be significant on the global scale. At the same time, small company managers often admit that they have achieved success in exports thanks to the adaptation of marketing communication for different markets. Small companies cannot achieve the economy of scale but are more flexible in adaptation (Stoian, 2010).

Promotion standardisation means that it is similar in different countries, rather than identical. In most cases it means employment of a unified idea and centralised execution. The standardised advertising message may not always be suitable for all the segments of the market, as there are national differences, consumers' perception and knowledge about the product can differ, and so can differ the perception of the advantages of the product; finally, the person who makes the purchasing decisions may be different. The factors that prevent a full standardisation are related to the matters of translation, compliance with the regulations and the content of the message (Harris, Attour, 2003).

Influence of standardisation/adaptation on business performance. Since, studying the influence of marketing strategy standardisation and adaptation on business results, different researches have obtained contradictory and often mutually exclusive results. It has been shown that the appropriateness of a specific strategy depends on its fit with the context in which it is deployed - good fit positively affects performance.

Although a small part of published research analyzes impact of standardisation/adaptation in strategy-fit context (Schmidt, Kotulla, 2011), many studies yield valuable results. For example, Cavusgil and Zou (1994) write about seemingly general but for small countries important finding: if firms want to adapt their products and communication to foreign countries they need to have high international competence. O'Cass and Julian (2003) illustrate that firms have to adapt their marketing strategies to foreign countries in the following situations: small firm size, unique product characteristics, high cross-national differences in the political/legal macro-environments and in industry characteristics. Recommendations for standardisation are provided if the following context is observed: high foreign consumer familiarity with the brand and durable product (Tai and Pae, 2002); high-tech industrial products (O'Donnell and Jeong, 2000).

Research results and discussion

1. Marketing strategy standardisation/adaptation assessment in Latvian exporter companies.

Product, including its sub-elements, is the most standardised marketing strategy element among the Latvian exporter companies surveyed. Its total adaptation level does not exceed 49%. Table 1 shows that standardisation is particularly high for the following product elements: 'quality' (15%), 'features' (30%) and 'warranty (21%)'. This means that Latvian companies gain ground on the export markets primarily by maintaining a constant level of quality, regardless of export market. If the physical features of the product are the same on

the home and the foreign markets, and the production volumes are high, the economy of scale for the company is the highest. Labelling is the element with the highest degree of adaptation (50%), as on each market labelling is regulated by the local language as well as rules and regulations. In the assessment of some experts, a very high adaptation degree (90%) is given to product positioning, which means that the product is positioned in a unique way on the export markets, and is different from the home market. Therefore, promotion elements also have a high adaptation degree, as different positioning entails different communication. One of the experts admits: "currently, we are working on developing a more standardised positioning, as the investments into adapted promotional materials do not pay off". This means that an adapted positioning increases the marketing expenses on communication and taking a decision like this requires making an assessment if the growth of export business results compensates for them. The ideal standardisation/adaptation degree for product assumed by the experts is by 15% lower than the actual degree. Companies can achieve significant resource savings by standardising the product elements (e.g. positioning, packaging, design).

Price has the highest degree of adaptation, when compared to the rest of the marketing strategy elements – 73%. Such degree of adaptation shows that the companies set differing prices in different markets, according to their respective purchasing power as well as to the competitor prices. Some experts note that pricing method has a comparatively high degree of standardisation (1–20%), while the other price elements are more adaptive. The highest degree of adaptation is for "discount allowances" (68%) and profit margins to the end-users (64%). However, speaking of the ideal standardisation/adaptation degree for price, most of the experts note that they would prefer a lower level of adaptation – 52%. At the same time, there is an opinion that "it would be preferable if 3 advertising price levels would be set for the majority of the markets". Therefore, it can be concluded that, currently, price is adapted individually to customers in different export markets, and it is influenced by the purchasing power and the competitor prices, as well as by the routes-to-market – the distribution and sales representative models preferred in each country. In the opinion of the experts, this marketing strategy element would be more manageable, if a part of its elements were more standardised.

Promotion is the marketing strategy element with the second highest degree of adaptation among the marketing strategy elements – 70%. A particularly high degree of adaptation is for advertising/sales promotion budget (83%), which in the expert evaluation is different for each export market, and media allocation (76%), i.e. the media channels used for advertising. This can be explained by the fact that on specific markets, attracting the attention of consumers and gradually building up loyalty require an individualised approach, according to the features of the local market and the local consumer behaviour. At the same time, the authors note that the ideal degree of adaptation suggested by the experts is 49%, lower than the current. This can be explained by the significant amount of resources – financial as well as personnel – required for adapting promotion for each export market.

According to the experts' evaluation, the marketing strategy element **distribution** has moderate adaptation level of 55%. However, a markedly high level of distribution adaptation (95–100%) is observed in the experts' evaluation of certain producers of foodstuffs. At the same time, the companies in the service and transport industries lean more towards standardisation (30%). The analysis of the Experts' survey results leads to the conclusion that on the export markets, the road to the end-consumer varies, and is influenced by the method of distribution, by the role of middle-men in specific countries as well as by the industry of the exporter company.

Table 1

Degree of marketing strategy standardisation/adaptation in Latvian exporter companies

companies				
Adaptation level (%)	Product	Price	Promotion	Distribution
Adaptation 0–10%	-	-	-	-
Adaptation 10–20%	Quality	-	-	-
	Warranty			
Adaptation 20–40%	Features	-	Sales force role	-
	Design/style			
	Packaging			
	Items in product line			
	After-sale service			
Adaptation 40–60%	Labelling	Pricing method/strategy	Message/theme	Physical distribution
		Sales/credit terms	Sales force structure and management	Channels of distribution
	Positioning	Profit margins for sales customers		Types of middlemen
				Role of middlemen
Adaptation 60–80%	-	Retail price	Advertising	
		Wholesale price	Creative/execution style	
		Profit margins to end-users	Sales promotion	
			Personal selling	
		Discounts	Publicity/public relations	
			Media allocation	
Adaptation 80–90%	-	-	Advertising/promotion budget	
Adaptation 90–100%	-	-		

Source: author's calculations based on the Expert survey conducted in October-December 2014.

Overall, the results of the Expert survey demonstrate a medium and high level of adaptation for most the marketing strategy elements. This means that, in practice, the significance of adaptation in achieving success on local markets is growing. The element that tends the most towards standardisation is product, specially its physical parameters, as their adaptation entails large expenses for the company. The elements that have the highest level of adaptation are price and promotion, which means that Latvian companies try to adapt to each market and every client to achieve better results.

2. Marketing strategy standardisation/adaptation influence on the business performance in Latvian exporter companies.

The analysis of the Expert survey shows that the most significant criterion in evaluating the performance of export activities is "the sales volume/its growth": 4.9 points out of 5 (5 being the most significant and 1 - non significant criterion). It is followed by the "owners'/management's satisfaction with the results" (4.3 points). "The market share" (3.4) and "the profit/its growth" (3.9) are slightly less important.

The experts' assessment shows that the degree of product standardisation/adaptation used by the companies has a markedly positive influence on the export business results. Similar results are observed for the use of the adaptation level of promotion and distribution – the ability of the companies to adapt these elements affects positively their export business results. According to the assessment of two experts, the marketing strategy element 'price' showed a negative influence, as the highly standardised (80-100%) sub-elements 'discounts' and "profit margin" negatively influenced the export business performance. Taking into account the fact that the most important business performance criterion is the sales volume, it can be concluded that Latvian companies do not always manage to achieve deals at desirable prices on the export markets.

Conclusions, proposals, recommendations

1. The research results prove that the standardisation/adaptation approach varies across the international marketing behaviour and that adaptation and standardisation are not mutually exclusive.
2. Overall, Latvian exporter companies mostly use moderately and highly adapted international marketing strategies. Promotion (70%) and price (73%) are the most adapted marketing strategy elements. Price is moderately adapted element (55%), and product is the least adapted element (49%). Particularly high standardisation is observed for product's sub-elements: 'quality', 'warranty' and 'features', as the physical product standardisation can provide significant savings for company on global scale.
3. The experts' preferable standardisation/adaptation degree differs from the actual degree for all marketing strategy elements, trending more towards standardisation.

4. Experts assessment illustrate that their chosen standardisation and adaptation degree of product, promotion and distribution has positive influence on export business performance. Some experts mention negative influence of high standardisation degree for element 'price', which leads to conclusion that not every export sales deal brings the desired profit margin.

Companies derived from small markets rarely can adopt the standardisation practices used by large multinational companies. Rather they would be more competitive in new markets if they can adapt to export market needs and competitive environment. However, once a company has strengthened its position in an export market, it can evaluate standardisation opportunities in order to create savings of resources.

Further research topics should make contribution to existing empirical studies regarding factors that influence decisions of marketing strategy standardisation/adaptation and find strategy fit-performance links that support trend to either standardisation or adaptation of the international marketing strategy.

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SATISFACTION AND LOYALTY FACTORS OF SKI RESORTS - THE CASE STUDY OF SLOVAKIA AND AUSTRIA

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Abstract. In order to keep up with the current challenges, a high level of awareness of the special demand patterns of customers is mandatory. The primary reason organizations measure service quality and customer satisfaction is to better understand how they may enhance customer value and loyalty, and thus, the overall financial performance of the firm. Providers of ski resorts must have a good understanding of their customers if they are to understand their quality perceptions or have a chance of successfully implementing service quality programmes. The paper investigates the relationship of factors influencing the satisfaction and loyalty according to ski resorts customers and ski resort providers. The qualitative data were collected in ski resorts of Slovakia and Austria. A total of 58 depth customer interviews of 3 ski resorts in Slovakia and depth provider interviews of 3 ski resorts in Slovakia and 3 ski resorts in Austria were analyzed using software Maxqda. The results of the research show that there is a gap between perception of satisfaction and loyalty factors of customers and providers of ski resorts. The findings suggest that providers of ski resorts should focus more on factors of the satisfaction and loyalty according to ski resorts customers' expectations. Theoretical and managerial implications of these findings are being discussed.

Key words: Satisfaction, loyalty, ski resort, customer, provider

JEL code: M310

Introduction

This paper represents the initial phase of the project aimed at researching the topical factors with their relationships and links influencing satisfaction and loyalty of ski resorts customers in selected countries. The main purpose of this study is to investigate the relationship of factors influencing the satisfaction and loyalty of customers of ski resorts in Slovakia and which factors providers of ski resorts in Slovakia and Austria consider important for their customers.

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Satisfaction has been a concern for a number of years (Cardozo, 1965) and is generally recognized as a post purchase construct that is related to how much a person likes or dislikes a product or service after experiencing it (Woodside, Frey, and Daly, 1989). It can be defined as an evaluation that an "experience was at least as good as it was supposed to be" (Hunt, 1977). Satisfaction is a response to a perceived discrepancy between prior expectations and perceived performance after consumption (Oliver, 1981; Tse and Wilton, 1988). Satisfaction is often described as a confirmation of expectations (Cadotte, Woodruff and Jenkins, 1987) and, while there has been some discussion as to whether satisfaction and dissatisfaction are opposite poles on the same dimension (Churchill and Surprenant, 1982), most researchers seem to have accepted that dissatisfaction and satisfaction reflect the same continuum (e.g., Westbrook and Oliver, 1991).

The influence of image on destination choice process has been studied by various authors (e.g., Crompton and Ankomah, 1993; Gartner, 1989; Goodall, 1988). It is believed that destinations with more positive images will be more likely included in the process of decision making. In addition, destination image exercises a positive influence on perceived quality and satisfaction. The degree of visitors' loyalty to a destination is reflected in intentions to revisit the destination and in their willingness to recommend it (Oppermann, 2000). Previous research on winter sport destinations which have hosted big sport events presented that there might be a gap between the relevance of the systematic considerations of the specific challenges of tourism destination marketing and common practice (Kaiser et al., 2013).

The connection between customer satisfaction and customer loyalty generally depends on the number of choices a customer has. The dominant view in the literature is that satisfaction is the more global of the two constructs, and that perceptions of service quality affect feelings of satisfaction, which will then affect loyalty and future buying decisions (Hurley and Hooman, 1998).

The factors affecting customer satisfaction and service quality are as many and as varied as the number of potential customers themselves. Different things are important to different people for different reasons and as such are perceived in different ways. For example, the same factor can be interpreted in many different ways, by many different people, and even, on occasion, by the same person depending upon the time of day, mood, attitude, and so on. Evidence suggests that successful organizations are able to diagnose their customer expectations fully and satisfy them completely, during each and every service encounter (Zemke and Schaaf, 1990).

Identification of service quality dimensions aids in the measurement, understanding, and satisfaction of customer needs and wants. This information comes from customers themselves and also from frontline staff who daily come into contact with them. While extensive research has been carried out in the area (Berry, 1983; Gronroos, 1984; Garvin, 1987; Fitzsimmons and Maurer, 1991), the work of Parasuman, Zeithaml, and Berry (1988) stands out in terms of helping clarifying how customers define service quality. Their initial qualitative study

recognized underlying dimensions of service quality, each of which is related to the customer's confidence in those providing the service. As a result of further extensive research these criteria were collapsed into five more specific components: tangibles, reliability, responsiveness, empathy, and assurance, which have formed the basis of many measurement techniques.

Geng-Qing Chia and Hailin (2007) studied an integrated approach to understand destination loyalty and they examined the theoretical and empirical evidence on the causal relationships among destination image, tourist satisfaction, and destination loyalty. A research model was proposed and tested. The model investigated the relevant relationships among the constructs by using a structural equation modelling (SEM) approach. The empirical data for the study were collected in a major tourism destination in the state of Arkansas—Eureka Springs. The main purpose of the study was to develop and test a theoretical model, which represented the elements contributing to the building of destination loyalty: destination image, attribute satisfaction, and overall satisfaction. The results supported the proposed destination loyalty model that destination image directly influenced attribute satisfaction; destination image and attribute satisfaction were both direct antecedents of overall satisfaction; and overall satisfaction and attribute satisfaction in turn had direct and positive impact on destination loyalty.

Methodology

In order to answer the qualitative research questions semi-structured interviews were conducted, confronting the interviewees with statements deduced from the body of theories described in the theoretical framework section as well as with factors influencing the satisfaction and loyalty of ski resorts customers, as described in the relevant literature. The relative advantages of qualitative compared to quantitative methods become highly significant. These methods limit the range of answers by the interviewee by basing the interview on a questionnaire, which can provide precise formulations and ordering of the questions as well as possible answers. A total of 58 depth customer interviews of 3 ski resorts in Slovakia and depth provider interviews of 3 ski resorts in Slovakia and 3 ski resorts in Austria were rewritten by using software Dragon, which is speech recognition software. The data were analyzed by using software Maxqda, which is professional software for qualitative and mixed methods data, allowing for easy sorting, structuring, and analyzing of large amounts of text by using code system. The satisfaction and loyalty factors of ski resorts with name of the code were assigned to the coded segment. The coded satisfaction and loyalty factors of respondents were compared and analyzed. The quota sample position consists of providers of 3 ski resorts in Austria (Skiwelt Wilder Kaiser Brixental, Schladming-Dachstein, Ischgl) and 3 ski resorts in Slovakia (Park Snow Donovaly, Jasna, Jasenska Dolina) from different departments, such as head of marketing, managers and 21 customers of ski resort Park Snow Donovaly, 20 customers of ski resort Jasna, and 17 customers of ski resort Jasenska Dolina in Slovakia. The

comparison was provided between providers of ski resorts in Slovakia and Austria who considered important satisfaction and loyalty factors for their customers and customers of each ski resort in Slovakia.

Research results and discussion

Data collection was completed with 58 samples of customers visiting ski resorts in Slovakia. Descriptive statistics of demographic factors provided the structure of the quota samples of this study, the details of many variables were provided, such as gender, age group, marital status, number of children and variables such as skiing skills, visit rate, length of stay. The age group of the customers visiting ski resorts in Slovakia was identified based on a sample of 58 respondents. The majority of them were aged between 25 to 39 (84.48%). According to this study, the number of male customers (55.17%) is greater than the number of female customers (44.83%). For the marital status, most ski resort customers were single (63.79%). About two-thirds of all the sample had children (31.04%), which is important fact in the selection of ski resort as they give a priority to ski resorts which offer attractions for children, ski schools, animators. A majority of respondents were intermediate (27.58%) and advanced (56.90%) customers of ski resorts, which is important fact in the selection of ski resort as they give a priority to ski resorts which offer diversity and length of slopes. From 58 samples, the results shows that ski resort Jasna was for the Slovak ski resorts customers the most popular ski resort in Slovakia (37.93%). Due to a limitation to the length of this paper, some of the results where the research was undertaken were discussing. Table 1 shows a comparison of factors, which provider of ski resort Jasna considers important for their customers and factors of 20 customers of ski resort Jasna, which influence their satisfaction and loyalty of the ski resort Jasna. In the depth interview with open questions there are some factors, which are important for provider and also for customers of the ski resort Jasna (number of identical factors). Some factors are important for ski resorts customers of ski resort Jasna but the provider does not consider them important for their customers (number of different factors). The results show that there is a gap between perception of important satisfaction and loyalty factors of provider of ski resort Jasna and its customers. The most important gap is between the customer perception of the satisfaction and loyalty factors such as price of accommodation, distance from the car park to the ski slope, choice of restaurants, waiting time on ski lift, price of skipass, music and image, which provider of ski resort Jasna does not consider so important for its customers. If customer of ski resort Jasna is not satisfied with a service of the ski resort, an alternative programme is the motivation to stay in the ski resort and a voucher is the loyalty factor for the next visit but provider of ski resort Jasna considers the solution of the problem as an important satisfaction and loyalty factor for its customers. The result of study Geng-Qing Chia and Hailin (2007) proposed destination loyalty model that destination image directly influenced attribute satisfaction, which is corresponding with the perception of customers of ski resort Jasna.

Table 1 Comparison of satisfaction and loyalty factors of provider of ski resort Jasna and its customers

Area	Factors of provider of ski resort Jasna	Number of identical factors	The other factors of customers of ski resort Jasna	Number of different factors
Accommodation	Directly in ski resort	9	Price of accommodation	6
	Accommodation package	3	Quality of accommodation	2
	Discount for skipass	11	Breakfast / half board	4
	Wellness	9	Distance to the slope	4
Transport	Parking for free	6	Access to ski resort	2
	Safety	7	Ample parking	5
	Ski bus	12	Distance to the ski slope	6
Restaurant	Restaurants with view	4	Choice of restaurants	9
	Après ski bar	7	Price of meals	3
			Traditional cuisine	5
Ski piste	Diversity of slopes	12	Ski lift	3
	Connection of north and south	3	Weather	3
	Slope conditions	8	Waiting time on ski lift	6
	Snow quality	5	Free ride	1
	Safety	3	Technology	1
Skipass	Gopass	1	Discount for students, families, groups	3
	Discount for wellness and other products	7	Off season skipass	1
	Voucher	6	Price of skipass	8
Attractions/ Activities	Events	2	Music	7
	Competitions	2	Ski school/rental	6
	Tobogganing	3	Attractions for children	4
	Event - Happy end	2	Concerts	3
	Evening attractions	1	Snow park	1
Loyalty	Complexity of services	7	Voucher	2
	Events	1	Diversity of slopes	3
	Attractions	2	Altitude	2
	Skipass	1	Service quality	3
	Marketing	1	Image	5
	Service satisfaction	4	Atmosphere	2
	Professional staff	2	Localization	2
Satisfaction - motivation	Feedback	1	Alternative programme	6
	Solve the problem	4	Attractions	2
	Professional staff	4	Discount for skipass	7
Satisfaction - loyalty	Professional staff	3	Voucher	3
	Solve the problem	5	Investment	2

Source: author's results based on research in ski resort Jasna

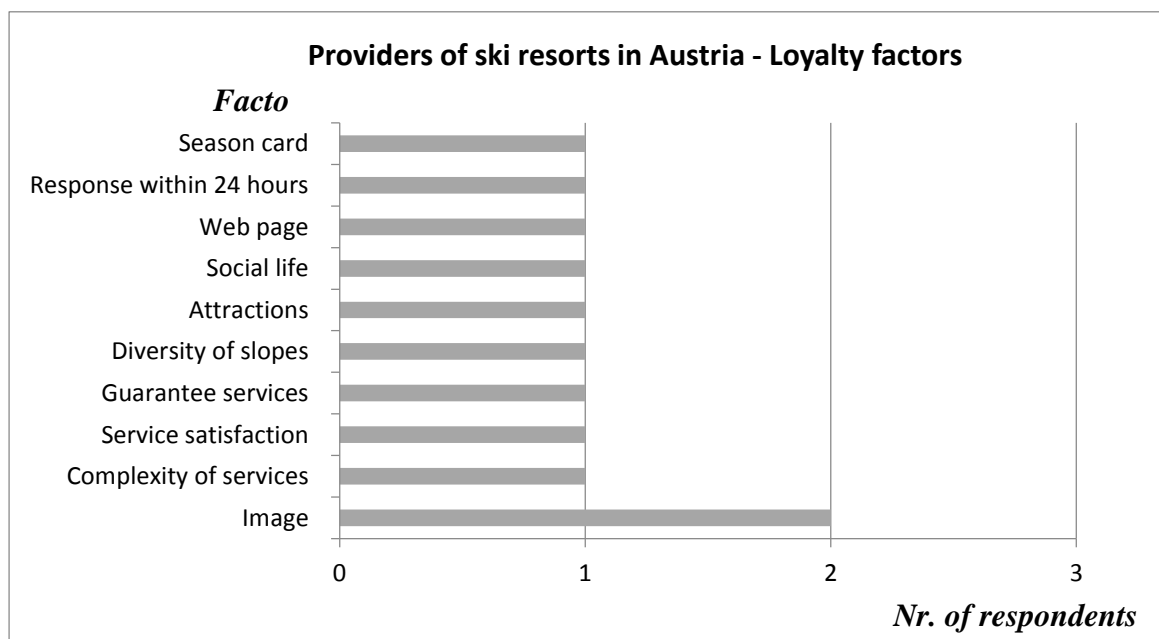
Figure 1 shows the most important loyalty factors for providers of ski resorts in Slovakia. They consider the most important loyalty factors for their customers as a localization, professional

staff, service satisfaction, complexity of services, atmosphere. Figure 2 shows the most important loyalty factors for providers of ski resorts in Austria, which consider an image as the most important loyalty factor for their customers. Figure 3 shows the most important loyalty factors for customers of ski resorts in Slovakia. They consider the most important loyalty factors as service satisfaction, complexity of services, localization and atmosphere. There is a gap between providers' and consumers' perception of the important satisfaction and loyalty factors of ski resorts. Providers of ski resorts do not consider the factors so important and they should more concern on it.



Source: author's construction based on loyalty factors of providers of ski resorts in Slovakia

Figure 1 Providers of ski resorts in Slovakia – Loyalty factors

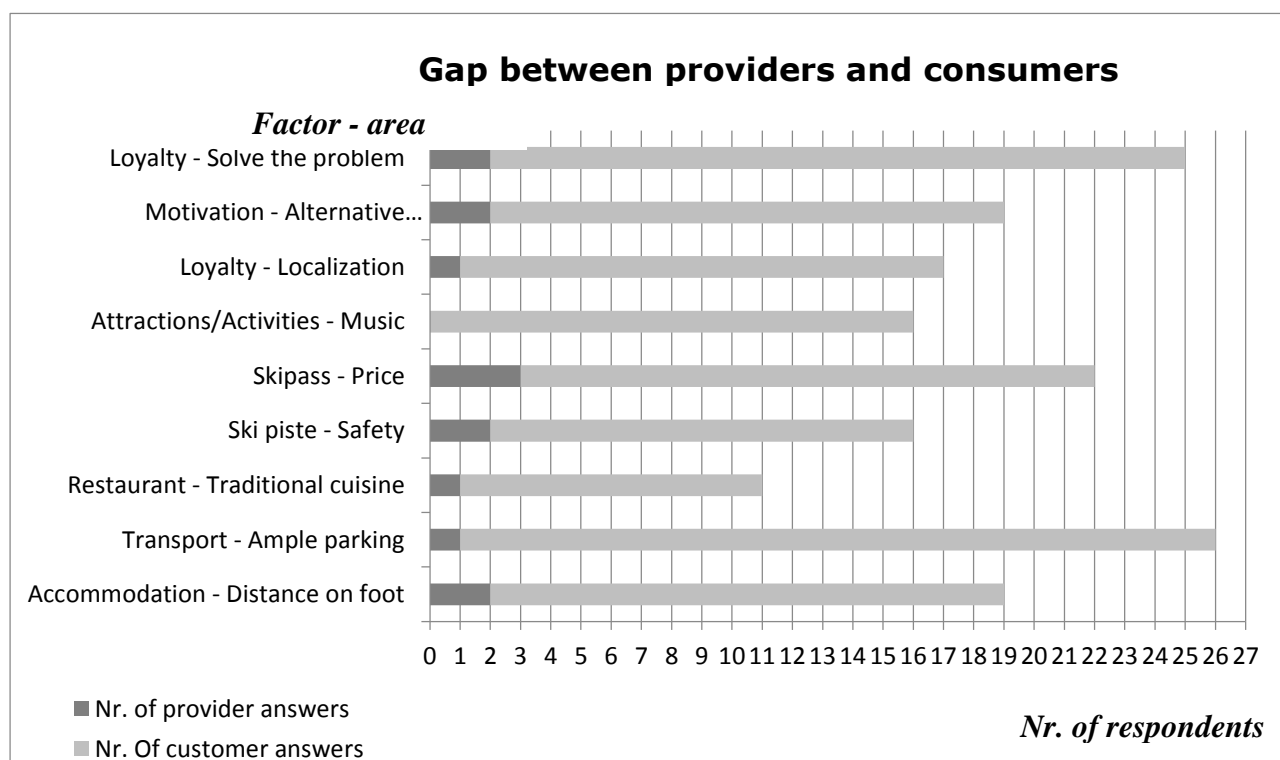


Source: author's construction based on loyalty factors of providers of ski resorts in Austria

Figure 2 Providers of ski resorts in Austria – Loyalty factors



Source: author's construction based on loyalty factors of customers of ski resorts in Slovakia
Figure 3 Customers of ski resorts in Slovakia – Loyalty factors



Source: author's construction based on gap between providers and consumers perception

Figure 4 Gap between providers and consumers perception

Figure 4 indicates the most important gap between providers' and consumers' perception of the important satisfaction and loyalty factors of ski resorts from 58 samples of customers of ski resorts in Slovakia and 6 providers of ski resorts in Slovakia and Austria. If customer of ski resort is not satisfied with a service of the ski resort, an alternative programme is the motivation to stay in the ski resort and a solution of the problem is the loyalty factor for them. Providers of ski resorts do not consider the factors so important and they should more concern on it. Providers of ski resorts should more concern on the satisfaction and loyalty factors as music, price of skipass, safety, traditional cuisine, ample parking, and accommodation distance on foot.

Conclusions

Marketing managers should understand reasons why customers of ski resorts are faithful to destinations and what influences their satisfaction and loyalty. Destination success depends strongly on a thorough analysis of tourist motivation, customer satisfaction, and loyalty. Focusing on the value proposition and ensuring customers of ski resorts to the ski resort are satisfied with their experiences are also important predictors of the attitudinal loyalty from the customers of ski resorts. The results of the Maxqda analysis reveal the discrepancy between ski resorts customers and ski resorts providers satisfaction and loyalty factors perception which brings especially practical benefit of the research. This paper represents the initial phase of the project aimed at researching the topical factors with their relationships and links influencing satisfaction and loyalty of ski resorts customers in selected countries. Hypotheses and quantitative questionnaire for further research will be developed based on the results of this study. It is significant to do a qualitative research before a quantitative questionnaire of the project will be created. The software Maxqda should also allow for various methodological approaches, such as qualitative content analysis, Grounded Theory, discourse analysis, group discussions, and case or field studies, which is significant for the further research.

The results of this paper suggest that:

- 1) by fostering deeper commitment from ski resorts customers toward the ski resort, the management may realize more positive attitudes of loyalty from its ski resort customer;
- 2) providers of ski resorts need to understand how expectations are created and how these expectations are influenced by their customers experiences;
- 3) providers of ski resorts need to identify the drivers of customer satisfaction, measure satisfaction levels, and derive the right strategies to increase satisfaction;
- 4) providers of ski resorts should more concern on the satisfaction and loyalty factors as music, price of skipass, safety, traditional cuisine, ample parking and accommodation distance on foot.

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FACTOR MODELS IN INVESTMENTS AND INCOME FORMING PROCESSES

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Abstract. In the article it is described a modern theory of securities portfolio forming. It is offered methods helping the investor to choose his optimum portfolio from an infinite number of possible ones the investor is offered to estimate its expected yields and standard deviation together with all covariations between these securities to solve of a matter on inclusion of each considered security in a portfolio. These estimations help the investor to define a curve of effective Markowitz set. In risk-free rate the investor can find a «tangent» portfolio and define position of linear effective set, as well as he can invest into this «tangent» portfolio and make a loan or give a credit on risk-free rate. Therefore the loan or credit sum depends on preferences of the investor concerning a parity of risk and profitability.

Key words: investor, income forming, factor models, sensitivities, factor uploading, portfolio, factor risk, correlation, attributive sensitivities

JEL code: Q550

1. Principles of factor modeling

Factor model is an attempt to capture the key economic forces that systematically affect the market value of all securities (Sharp and others, 2003; William, 1984; Makmin, 2001; Edronova, Mizikovskij, 1995).

When building a factor model it is implicitly assumed that the yields are correlated only due to a shared response to one or more factors identified in the model. As a result the factor model is a powerful tool for investment portfolio management. It can provide with the necessary information to calculate the expected yields, variances and covariance for each security, which is a necessary condition for determining the curve of the effective Markowitz set. It can also be used to characterize the sensitivity of the portfolio to changes in the factors. In factor models it is assumed that the yield securities react to changes in various factors (or indexes) (Edronova, Mizikovskij, 1995; Sidnyaeva, 2006). In the market model it is assumed that there is only one factor - the yield on the market index. However, attempts to estimate accurately the expected yield, variance and covariance of securities with the multifactor model are potentially more useful than with the market model. This is because the effective yields on

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securities are sensitive not only to changes in the market index but also to economy in general.

In practice, all investors explicitly or implicitly apply factor models. It happens because it is impossible to consider the interconnection of each security with each other security individually, such as the amount of computation when calculating covariance of securities increases with the increase of the number of the analysed securities.

In economic theory, the most important is to evaluate the forecast results (Sidnyaev, 2003; Sidnyaeva, 2001; Sidnyaev, Smirnov, 2009; 2010). More often these results are not subjected to one or a set of the simplest known functions. Therefore, when evaluating results, it is advantageous to use the approximating polynomials, which can describe the response function. Most often Taylor series with a finite number of members are used as the basic function.

$$F(x) = F(a) + \frac{x-a}{1!} F'(a) + \frac{(x-a)^2}{2!} F''(a) + \dots + \frac{(x-a)^n}{n!} F^{(n)}(a).$$

When using the approximating polynomial Taylor in its original form, there arise several problems associated with finding the derivative, such as the function is unknown. Only the number of its values is available. Therefore, as a rule, the Taylor polynomial is replaced by regression equation:

$$r = b_0 + \sum_{i=1}^k b_i x_i + \sum_{i,j=1}^k b_{i,j} x_i x_j + \sum_{i=1}^k b_{i,i} x_i^2 + \sum_{i,j,n=1}^k b_{i,j,n} x_i x_j x_n + \dots$$

where k - the number of columns in the observation matrix. Linear regression model is used in the paper for investment processes studies.

$$r = b_0 + \sum_{i=1}^k b_i x_i$$

In this case there are $k+1$ unknown coefficients, i.e., for each k -factor experiment it will be enough $k+1$ observations. The measurement results of the output value r in k points in the factor space are realization of normally distributed values. Dispersion of implementation at all points in the factor space should be the same, i.e., the variance should not depend on the absolute values of the magnitude and direction of the factor space. Input variables (factors) are independent quantities, which are measured with an infinitely small error relative to the error of the output value.

2. One-factor models of yield securities

The relationship between the forecast rate of GDP growth and equity returns of the investment company can be expressed as the equation:

$$r_t = a + bB_t + e_t ,$$

(1)

where r_t - yield stocks for the period t ; B_t is the forecasted growth rate of GDP over the period t ; e_t - unique, or specific yield for period t ; b - sensitivity to a forecasted growth rate of GDP; and a - zero factor for GDP. The element changes from period to period and it depends on the forecasted growth rate of GDP (bB_t). Single-factor model can be generalized in the form of the equation for any securities i in time period t :

$$r_{it} = a_i + b_i F_t + e_{it} ,$$

(2)

where F_t is the forecasted value of the factor in period t , and b_i - sensitivity of securities i to this factor. If the forecasted value of the factor is equal to zero, the yield of such security would be $a_i + e_{it}$. Note that e_{it} is a random variable with zero mean value and standard deviation σ_{ei} . According to the single-factor model, the expected yields of security i can be written in the following form:

$$\bar{r}_i = a_i + b_i \bar{F} ,$$

(3)

where \bar{F} denotes the expected factor value. This equation can be used to estimate expected yields. For example, if the expected growth rate of GDP is 3%, it is expected for yield security of the company to be equal to 10% ($4\% + 2 \cdot 3\%$). Single-factor model can also show that the variance of any security i is equal to:

$$\sigma_i^2 = b_i^2 \sigma_F^2 + \sigma_{ei}^2 ,$$

(4)

where σ_F^2 - variance of factor F , a σ_{ei}^2 - random error variance. Therefore if the variance of the factor is equal to 3, and the residual variance is 15,2, according to this equation, the variance of the securities is equal to: $\sigma_i^2 = (2^2 \cdot 3) + 15,2 = 27,2$.

In the single-factor model, it is possible to show that the covariance between any two securities i and j is equal to:

$$\sigma_{ij} = b_i b_j \sigma_F^2 .$$

(5)

Equations (4) and (5) are based on two important assumptions. First, it is assumed to be the lack of correlation between the random error and the factor. This means that the value of the factor does not affect the magnitude of the random error. Secondly, it is assumed to be the lack of correlation between random errors of any two securities. This means that the magnitude of the random error of a security does not affect the magnitude of the random error of any other securities. The assumption is that the yields of all securities react to a single common factor that greatly simplifies the task of determining the "tangent" portfolio. For

determining its composition the investor must evaluate all of the expected yields, variance and covariance. In the single-factor model, it can be done by evaluating a_i , b_i , and σ_{ei} for any of risky securities N . It is also necessary to have the expected value of the factor and its standard deviation. Using these estimates in equations (3), (4) and (5), one can calculate the expected return, variance and covariance of securities. Using these parameters one can define the curve efficient Markowitz set. It can be defined "tangent" portfolio for an actual risk-free rate. It is known that diversification leads to the averaging of market risk and mitigating own risk. This peculiarity applies to any single-factor model, if one replaces the words "market" and "private" to "factor" and "non-factor". The first term in the right-hand side of equation (4) ($b_i^2 \sigma_F^2$) is called security factor risk, and the second (σ_{ei}^2) is called security non-factor risk.

In the single-factor model, the variance of the portfolio is given by the expression:

$$\sigma_p^2 = b_p^2 \sigma_F^2 + \sigma_{ep}^2, \quad b_p = \sum_{i=1}^N X_i b_i, \quad \sigma_{ep}^2 = \sum_{i=1}^N X_i^2 \sigma_{ei}^2. \quad (6)$$

Equation (6) shows that the total risk of any portfolio can be represented in the form of two components, similar to the two components of the total risk of the individual securities shown in equation (4). As the portfolio becomes more diversified (i.e., containing more securities), each security X_i becomes smaller. However, this will not lead to significant increase or decrease of b_p , if it was not made an attempt to do this by adding securities with relatively small or large values b_i respectively. This is due to the fact that b_p is simply the weighted average of security sensitivity b_i in which the weights are values X_i . Therefore diversification leads to averaging of risk factor. However, as portfolio becomes more diversified, it can be expected the reduction of non-factor risk σ_{ep}^2 . Assuming that one and the same amount is invested in each security, this equation can be rewritten with the substitution of X_i to $1/N$ in the following way:

$$\sigma_{ep}^2 = \sum_{i=1}^N \left(\frac{1}{N} \right)^2 \sigma_{ei}^2 = \left(\frac{1}{N} \right) \left[\frac{\sigma_{e1}^2 + \sigma_{e2}^2 + \dots + \sigma_{eN}^2}{N} \right]. \quad (7)$$

The value inside the square brackets is the average non-factor risk for individual securities. But non-factor portfolio risk is only $1/N$ part of this value due to the multiplier $1/N$ in front of the parentheses. As the portfolio becomes more diversified, the number N of securities enlarges in it. Here $1/N$ decreases, that, in turn, reduces non-factor risk of the portfolio, i.e. diversification reduces non-factor risk.

3. Multi-factor models of yields

Unlike single-factor models multi-factor model of yield securities, taking into account these different effects may be more accurate. As an example, let's consider a model in which it is assumed that the process of income generation includes two factors. Two-factor model for period t is written as the following equation:

$$r_{it} = a_i + b_{i1}F_{1t} + b_{i2}F_{2t} + e_{it}, \quad (8)$$

where F_{1t} and F_{2t} - two factors influencing on yields, and b_{i1} and b_{i2} - sensitivity of security i to these two factors. As in case of single-factor model, e_{it} - random error, a_i - expected yields of security i under the condition that each factor value is equal to zero. Observation points are approximated by plane obtained using the statistical method of multiple regressions (Adronov, Mizikovskiy, 1995). The plane for any security is described by equation (8):

$$r_t = a + b_1B_t + b_2I_t + e_t$$

Slope of plane in the direction of the growth rate B_t (b_1) is the sensitivity of the company's securities to changes in growth rate B_t . Slope of plane in the direction of inflation rate I_t (b_2) is sensitivity of the securities to changes in inflation rate.

Under two-factor model it is necessary to estimate four parameters a_i , b_{i1} , b_{i2} and standard deviation of random error designated as σ_{ei} . For each factor it is necessary to estimate two parameters - expected value of each factor (\bar{F}_1 and \bar{F}_2) and dispersion of factor (σ_{F1}^2 and σ_{F2}^2). Finally, it is required to estimate the covariance of factors - $\text{COV}(F_1, F_2)$. Using these estimates, the expected yields of any security i can be calculated by the following formula:

$$\bar{r}_i = a_i + b_{i1}\bar{F}_1 + b_{i2}\bar{F}_2, \quad (9)$$

According to the two-factor model dispersion of any security i is equal to:

$$b_i^2 = b_{i1}^2\sigma_{F1}^2 + b_{i2}^2\sigma_{F2}^2 + 2b_{i1}b_{i2}\text{cov}(F_1, F_2) + \sigma_{ei}^2. \quad (10)$$

If in the given example the dispersion of first (σ_{F1}^2) and second (σ_{F2}^2) factors is equal to 3 and 2,9 correspondently, and their covariation [$\text{COV}(F_1, F_2)$] is equal to 0,65 than the dispersion for securities of a company will be 32,1 $\left[(2,2^2 \cdot 3) + (-0,7^2 \cdot 2,9) + (2 \cdot 2,2 \cdot (-0,7) \cdot 0,65) + 18,2 \right]$, such as their sensitivity and dispersion of random error are equal to 2,2-0,7 и 18,2

correspondently. Similarly, according to the two-factor model, the covariance between any two securities i and j is defined by the following formula:

$$\sigma_{ij} = b_{i1}b_{j1}\sigma_{F1}^2 + b_{i2}b_{j2}\sigma_{F2}^2 + (b_{i1}b_{j2} + b_{i2}b_{j1})\text{cov}(F_1, F_2). \quad (11)$$

As in single-factor model, when the expected return, variance and covariance are calculated using the above equations, the investor can use the "optimizer" to obtain the curve of the efficient Markowitz set. As in the single-factor model, the sensitivity of a portfolio to a specific factor in a multi-factor model is equal to weighted average of securities sensitivity, where weights are equal to fractions in which the funds are invested in securities. It can be demonstrated if we remind that portfolio yields are equal to weighted average yields of its securities:

$$r_{pt} = \sum_{i=1}^N X_i r_{it}. \quad (12)$$

Substitution in the right-side of equation (8) instead of r_{it} gives:

$$\begin{aligned} r_{pt} &= \sum_{i=1}^N X_i (a_i + b_{i1}F_{1t} + b_{i2}F_{2t} + e_{it}) = \left[\sum_{i=1}^N X_i a_i \right] + \left[\sum_{i=1}^N X_i b_{i1}F_{1t} \right] + \left[\sum_{i=1}^N X_i b_{i2}F_{2t} \right] + \left[\sum_{i=1}^N X_i e_{it} \right] = \\ &= a_p + b_{p1}F_{1t} + b_{p2}F_{2t} + e_{pt}, \end{aligned} \quad (13)$$

where

$$a_p = \left[\sum_{i=1}^N X_i a_i \right]; b_{p1} = \left[\sum_{i=1}^N X_i b_{i1} \right]; b_{p2} = \left[\sum_{i=1}^N X_i b_{i2} \right]; e_{pt} = \left[\sum_{i=1}^N X_i e_{it} \right].$$

It should be noted that the sensitivities of the portfolio b_{p1} and b_{p2} are weighted average of the corresponding individual sensitivities b_{i1} and b_{i2} . In the two-sector factor model the process of income forming on securities has the same general form as in the two-factor model described by equation (9). Now in the two-sector factor models F_1 and F_2 denote sector-factors 1 and 2 respectively. Further, any specific security belongs one of the sectors 1 or 2 but not to both. By definition, the sensitivity of the security to the sector factor to which this security does not belong to is assumed to be zero. This means that either b_{i1} or b_{i2} is equal to zero depending on which of the sectors the security i does not belong to. As an example let's take companies A and B. Two-sector factor model for A is given by the equation:

$$r_A = a_A + b_{A1}F_1 + b_{A2}F_2 + e_A.$$

However, due to the fact that A as an industrial company belongs to sector 1, the coefficient b_{A2} is assigned a value of zero. Then equation (12) reduces to equation: $r_A = a_A + b_{A1}F_1 + e_A$.

So in the two-sector factor model it is necessary to estimate only values a_A , b_{A1} and σ_{eA} for A. By way of illustration, let's see that in the two-factor model it is necessary to estimate the values of a_A , b_{A1} , b_{A2} and σ_{eA} . Similarly, such as B belongs to the non-industrial sector, the two-sector factor model for it is as following

$$r_B = a_B + b_{B1}F_1 + b_{B2}F_2 + e_B , \quad (14)$$

that simplifies to equation:

$$r_B = a_B + b_{B2}F_2 + e_B , \quad (15)$$

such as b_{B1} is assigned zero value. As a result in the two-sector factor model it is required to estimate only values a_B , b_{B2} and σ_{eB} . In general, while in the two-factor model for each security it is to be estimated four parameters (a_i, b_{i1}, b_{i2} and S_{ei}) in the two-sector factor model it should be estimated only three parameters (a_i, σ_{ei} and either b_{i1} , or b_{i2}). With these estimates, together with estimates for F_1 , F_2 , σ_{F1} and σ_{F2} , the investor can apply equations (9) and (10) to calculate the expected returns and variances for each security. Paired covariances can be estimated using equation (9). This will enable the investor to determine the curve of effective Markowitz set, then the tangent portfolio for an actual risk-free rate.

For the case in k factors a multifactor model can be written in the following form:

$$r_{it} = a_i + b_{i1}F_{1t} + b_{i2}F_{2t} + \dots + b_{ik}F_{kt} + e_{it} , \quad (16)$$

where each security is characterized by k sensitivities, one for each of the k factors.

Equation (16) can contain both factors and sector-factors. For example, F_1 and F_2 can denote GDP and inflation, while F_3 and F_4 can be industrial and non-industrial securities yields, respectively. Consequently, the securities of each type would have three sensitivities: b_{i1}, b_{i2}, b_{i3} for industrial and b_{i1}, b_{i2} and b_{i4} non-industrial securities. As an equation the factor model for the securities looks as follows:

$$r_{it} - r_{ft} = a_i + b_{i1}(r_{Mt} - r_{ft}) + b_{i2}S_t + b_{i3}H_t + e_{it} . \quad (17)$$

The first factor ($r_{Mt} - r_{ft}$) is equal to the difference between the monthly returns of the security market and one-month treasury bills. The factor of capitalization (St) can be thought of as the difference in monthly returns on the two indices - the indices of the "small" and "large" securities. Relationship factor of book value to market (H_t) is also the difference in monthly returns on the two indices - the indices of the securities of high and low ratio of book value to market one. Index of securities with a high ratio consists of those securities that are in the upper third of the values range H_t , and index of securities with low ratio consists of those securities that are in the bottom third. It can be identified two factors that explain the monthly yield on the securities. In the equation their factor model for securities looks as follows:

$$r_{it} - r_{ft} = a_i + b_{i1}T_t + b_{i2}D_t + e_{it}.$$

(18)

4. Method of spatial sampling

Method spatial sampling is completely different from the method of time series. In the latter method, the factor values are known, and their sensitivities are evaluated. Then the analysis is made for the same securities on a large number of time intervals, and then for another security, etc. In the method of spatial sampling the sensitivities are known and factor values are estimated. In this method, the sensitivities are sometimes named attributive. The analysis by this method is made within one time interval for a group of securities, then within another time interval for the same group of securities, etc. To illustrate the method of spatial sampling let's see the examples of one-factor and two-factor models.

In some periods of time securities with low market capitalization are generally of higher returns than securities with high market capitalization. In other periods quite the opposite can be true. There are many models in the method of spatial sampling using size index that is often defined as the logarithm of the total market value of securities placed by the company. The slope of the straight regression line gives estimation to the rate of capitalization in an actual period of time. However, this procedure has some drawbacks. Securities with large capitalization usually have a higher rate of dividends. Therefore, the difference in yields between securities with high and low capitalization may be partially related not only to differences in capitalization but with a difference in rate of dividend. The estimated rate of capitalization may partially reflect the influence of the true rate of dividend. The problem is symmetric in the sense that the estimated rate factor of the dividend may also partially account for the actual capitalization. This problem can be partially resolved by comparing the yield with the amount of capitalization and rate of dividend at the same time and using the statistical method of multiple regressions. Each security is a point on the three-dimensional diagram. Approximation of data using plane is normally estimated by the method of multiple regressions using the regression equation:

$$r_{it} = 7 + 0,4b_{i1t} - 0,3b_{i2t} + e_{it} ,$$

(19)

where b_{i1t} and b_{i2t} denote the rate of dividend and capitalization of securities i for period of time t , correspondently. In general the regression equation for two-factor model is written in the following way:

$$r_{it} = a_t + b_{i1t}F_{1t} + b_{i2t}F_{2t} + e_{it} ,$$

(20)

where a_t denotes zero factor i in period of time t , and two factors are denoted as F_{1t} and F_{2t} .

Conclusions and recommendations

Factor model corresponds to the process of income forming, linking security yield with changes in one or more common factors. Any aspect of security yield being unexplained by the factor model is specific for the actual security, and, it is consequently, uncorrelated with the specific components of the yields of other securities. The market model is a particular example of factor model in which the factor is the return on the market index. Yield securities react to common factors that greatly simplify the task of the curve calculation of effective Markowitz set. The sensitivity of a portfolio to a factor is equal to the weighted average of the sensitivity for its constituent securities. Thereby the weights are the fractions in which the securities are included in the portfolio. Full risk for securities consists of the risk factor and non-factor risk. Diversification leads to the averaging the factor risk or reduces non-factor risk.

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CONSUMERS INTENTION AND PERCEPTION OF BUYING ORGANIC FOOD PRODUCTS IN JAKARTA, INDONESIA

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Abstract. In spring of 2013, a survey was conducted to examine the intention and perception of consumers towards buying organic food products in Jakarta, Indonesia, and to identify the influence of gender, age and monthly income to consumers' intention and perception towards these products. Organic food products are a niche product in Indonesia, mostly offered in Jakarta. The survey data were gathered from 223 consumers in five different districts of Jakarta using a standardized questionnaire. Rice and vegetables were the most chosen organic products. The results show no significant correlations between gender, age and monthly income towards the consumers' intention to purchase organic food products. The agreement to several statements towards organic food products indicated relatively high knowledge and perception but benefits of organic products were less recognised. Better knowledge and information about organic food products in Indonesia are necessary.

Key words: consumer behaviour, organic food, buying intention, perception

JEL code: D 1

Introduction

Organic food is defined as 'food that is produced according to certain criteria [...]. Materials and methods that enhance the ecological balance of natural systems are used in the production. For example, organic food is produced without pesticides, herbicides, inorganic fertilisers, antibiotics and growth hormones. Animal welfare is important, and bioengineering and genetically modified foods are not accepted' (Honkanen P., et al, 2006, p.420). Organic food should be produced from organic agriculture or organic farming. According to Willer (2012) in 2010 about 160 countries had certified organic agriculture (Willer, H., 2012, p.45). In 2010, the worldwide distribution of 6.1 million hectares of arable organic land was as follows: 66.9% in Europe, 21.6% in North America, 6.8% in Latin America, 3.1% in Asia and 1.7% in Africa (Willer, H., 2012, p.15).

The organic agriculture development in Indonesia began in the 1980s, and was concentrated in Java Island. In 2010, more than 50,000 hectares or 0.2% of agricultural land

in Indonesia were organically managed. The most important crop was coffee, among the arable crops vegetables, mainly grown for the domestic market (Ariesusanty, L., 2011, p.138).

Seven organizations provide the organic certification based on the local government regulations about organic products. Biocert is the only certification body that can certify both local and exported organic products to Asian countries. Biocert requires the farmer to provide annual production plans in every inspection cycle and randomly check on the finished goods in the market without announcements (Fathallah, H., et al., 2011, p.5).

The highest demand is for vegetables and rice. In two types of markets organic products will be found normally: mainstream supermarkets and specialized organic stores, selling only organic products (Ariesusanty, L., 2011, p.138). In supermarkets, organic products will be presented in separate locations.

One research about Indonesian consumers' behaviour in organic products was done by Deliana (2012) in Bandung (West Java). The results of this study show that organic products were perceived as products which are free from synthetic pesticide, synthetic fertilizer and chemicals, environmentally friendly and also more expensive than other products. Otherwise, the common understanding of organic food was that organic food has no pesticides, no artificial fertilizers and residue-free safe product. Furthermore, some consumers assumed that organic food has a higher vitamin and mineral content than conventional products and is also healthier (Deliana, Y., 2012, p.51).

According to Kotler (2002), perception is the process to choose, organize and interpret the information about the value of a product or service. Perception is an interaction between the stimuli from the surrounding condition that influence consumers' feeling towards something (Kotler, P., 2002, in: Gantina, A., 2006, p.8).

There are several factors that influence consumer perception according to Kotler (2002):

- 1) stimuli factor, it includes the sensory element of a product (colour, texture, size, and other attributes of a product);
- 2) individual factor, which is defined as the individual characteristic towards an attribute of a product, and also the knowledge and experience about this. Motivation of buying product and the condition of a consumer (depressed, happy) while being exposed to the product will bring impact to their perception (Kotler, P., 2002, in: Gantina, A., 2006, p.8).

Demographic factors are part of individual factors, for instance, education level, economic condition, ethnic, nationality, historical experience, size of family and job. These all will influence the individual perception about a product (Mowen, J.C. and Minor, M., 2002, in: Gantina, A., 2006, p.12).

A study of the influence of gender on organic food purchase was done by Yi (Yi, L. K., 2009, p. 16) in Hong Kong. This study indicates that women tended to buy organic food products more often than men. In contrary, a study by Mohamed et al (Mohamed, M.A., et al, 2012,

p.186) shows that in Egypt, more men tended to buy organic food products than women do. This result may differ due to the social aspects where in Egypt, most of the households depend on men to manage the home's need in food consumption. The study by Yi (Yi, L. K., 2009, p.18) also shows that in Hong Kong, the age groups between 36-45 years indicated more interest in buying organic food products than younger or older age groups. This happened due to the income of these age groups which was relatively higher than in other age groups. Hence, this will increase their willingness to buy organic food products which usually are more expensive than regular products. In regard of income and organic food purchase, the study also points out that higher income groups in Hong Kong tended to have interest in purchasing organic food product than lower income groups. This result is in line with the study by Lončarić et al (Lončarić, R., et al, 2009, p.422) in Croatia which indicates that higher income groups were willing to buy organic food products more often than lower income people. This is also indicated because the organic food products in this country are relatively more expensive.

The main objectives of this study are to give information about the intention and perception of people towards organic food products in Jakarta, Indonesia, and also to identify whether there is influence of gender, age and monthly income to people's intention towards organic products. Also, the study is expected to give information that can be used for the producers of organic products to segment their products in Jakarta and to give additional information about consumer behaviour and the development of organic food products in Indonesia. The hypothesis is tested if gender, age and monthly income influence the intention towards buying organic food products.

The sampling method in this research is nonprobability convenience sampling. Nonprobability sampling is the sampling in which the personal judgment dominates in selecting the samples (Shao, A. T., 2002, p. 369). In this sampling, the costs and barrier in figuring the sample frame can be ignored. Nonprobability sampling is usually used in the explanatory stage, survey with questionnaire, and when researcher has lack knowledge in statistics (Aaker, D. A., et al, 2003, p.387). This sampling method is often used by researchers in order to reduce the cost of sampling or even limited time (Shao, A. T., 2002, p.369). In this study respondents were chosen from all over Jakarta area and were randomly selected from several institutions that might represent their social category (gender, age and monthly income). They were spread from five different areas in Jakarta (North Jakarta, East Jakarta, South Jakarta, West Jakarta and Central Jakarta).

Jakarta is the capital and the largest city of Indonesia with 9.6 million people based on survey in 2010. The city of Jakarta is located in Java island which is one of the most populous islands. Jakarta is the centre of the economy and the government. Jakarta is divided into five different administrative regions. Central Jakarta (also the administrative region) with 47.90 km² area, North Jakarta 142.20 km², West Jakarta 126.15 km², South Jakarta 145.73 km² and East Jakarta 187.73 km² (BPS, 2012).

Jakarta is the city in Indonesia which has a higher ratio of people from middle and up economic classes than any other cities in Indonesia, more numbers of big retailers, both foreign and local retailers. Carefour (big retailer chain from France) has about 24 stores in Jakarta and hundreds of other big, medium or small retailers. Some food retail chains also provide many imported foods and usually offer more organic products, e.g. Ranch Market and Food Hall.

A self-administered questionnaire was used to reduce the costs (Aaker, D.A., et al. 2003, p.245). Before the primary data collection, the questionnaire was tested with 20 respondents. There was no change of the questionnaire after the pretest.

The questionnaire in Indonesian language with two pages included 18 closed questions. Eight questions were oriented to the knowledge and the buying behaviour of organic products, eight to the perception, two to demographics. Multiple answers were possible in the case of three questions. The survey was carried out in February and March 2013 in Jakarta.

The data collections were held in several places. About 85% of 223 respondents filled the questionnaires in institutional places, such as church, social gathering ceremony, offices and also some others organizational places all over Jakarta. About 15% of the respondents filled the questionnaires at their homes.

The results were analysed using SPSS Version 17.0.

Research results and discussion

Two hundred and twenty questionnaires could be interpreted from 223, three were not valid. Among the respondents, 35.5% were female, 64.50% male. The ages of the people ranged from under 26 over 55 years (Table 1).

Table 1

Age of the respondents (n=220)

Age	< 26	26 - 35	36 - 45	46 - 55	> 55
%	24.10	25.00	19.10	25.00	6.80

Source: author's construction

A majority of 37.70% had an income between 1.250.000 and 3.000.000 Rupiah (Table 2).

Table 2

Monthly income (n=220)

Rupiah	<1,250,000	1,250,000 - 3,000,000	3,000,000 - 5,000,000	5,000,000 - 10,000,000	> 10,000,000
%	22.30	37.70	27.30	8.20	4.50

Source: author's construction

The term 'organic' had been heard or seen in any food product by 98.65% of the respondents.

Most of the respondents had found organic products in supermarkets (79.40%), followed by traditional market (31.90%) (Table 3).

Table 3

Contribution of the places to find organic food products, multiple answers possible (n=204)

Supermarkets	Traditional market	Restaurant	Special organic shop
79.40%	31.90%	20.10%	10.80%

Source: author's construction

Table 4 illustrates the contribution of how the respondents noticed that a food product is an organic product. Most of the respondents identified the organic products by the organic label (35.90%) and by the label/product (34.50%) and followed by advertisement (19.10%), about 7.70% from other resources, for instance from friends, brands and brochures.

Table 4

Contribution of how the respondents noticed a food as an organic food (n=220)

Organic Logo	Mentioned on Label/Product	Advertisement	Others	Sales promotion girl
35.90%	34.50%	19.10%	7.70%	2.70%

Source: author's construction

Having experiences with purchasing any organic product was stated by 84.50% of the respondents. Table 5 shows types of organic products the respondents had purchased. Organic rice was the product which most of the respondents had purchased (53.70%) followed by organic vegetables (51.10%) and organic fruits (47.90%).

Table 5

Purchased types of organic food products in %, multiple answers possible (n=190)

Rice	Vegetables	Fruits	Milk	Eggs	Tea	Coffee	Baby Food
53.70	51.10	47.90	13.70	10.00	10.00	7.40	4.70

Source: author's construction

The respondents were asked about their interest to buy organic food products in the future. Almost three-fourths (73.60%) were strongly and somewhat interested to buy organic products in the future, 24.50% neutral, only 1.90% were not interested. The respondents were interested to buy organic rice (52.60%), organic vegetables (50.70%) and organic fruits (41.10%) (Table 6).

Table 6

Purchasing types of organic food products in the future in %, multiple answers possible
(n=209)

Rice	Vege- tables	Fruits	Baby Food	Milk	Eggs	Coffee	Tea
52.60	50.70	41.10	16.70	13.90	12.40	4.80	4.30

Eight questions were oriented towards perception of attributes and knowledge with a five-level scale. Three-fourths agreed or strongly agreed organic product is more expensive, 79.50% organic product is environmentally friendly, 70.0% free from pesticides and synthetic fertilizer, 66.8% organic product has higher nutrition content, 64.40% the freshness is better. Only 38.10% could agree or strongly agree to more concern about animal welfare by organic product. The relation of organic product to imported product from US or Europe was (strongly) agreed by 61.30%. Noticeable is the neutral position of 62.30% to the statement about the benefits of organic product (Table 7).

Table 7

Perception of organic food product in % (n= 220)

Statement	Strongly agree, agree	neutral	Disagree, strongly disagree
Organic product is more expensive	75.90	20.90	3.20
Organic product is always related with imported product (US/Europe)	61.30	16.80	21.90
The freshness of organic product is better	64.40	24.50	10.90
Organic product has higher nutrition content (vitamin/mineral)	66.80	19.10	14.10
Organic product is environmentally friendly	79.50	17.30	3.20
Organic product is free from pesticide and synthetic fertilizer	70.00	17.70	12.30
Organic product has more concern about animal welfare	38.10	34.10	27.70
Just don't see any benefits of organic product	36.40	62.30	1.40

Source: author's construction

Cross tabulation analysis showed no significant correlations between gender, monthly income, age and the consumers' intention to buy organic food products. These results are not in line with the literature based on Deliana (Deliana, Y., 2012, p. 51) and Wansink et al (Wansink, B., et al., 2003, p.741) which stated organic product is considered as healthier product and female usually prefer healthier products than male respondents. Also, there is no accordance with the study by Yi (Yi, L. K., 2009, p.18) and Lonbariü et al (Lonbariü, R., et al, 2009, p.422) which indicated that consumers with higher income are willing to buy organic food products more often than lower income groups. This is inferred that higher income consumers have better perceptions that make them have a higher willingness to buy organic products. Yi (2009) indicated older people tend to have higher willingness to buy organic food products than younger consumers (Yi, L.K. 2009, p.18). The study by Wansink et al (Wansink, B., et al, 2003, p.741) also indicated that older people tend to be more health concerned than younger people.

Conclusions, proposals, recommendations

The hypothesis is not confirmed. Gender, monthly income and age have no influences on the intention to buy organic food products in this survey. Limitations are comprised due to the biased respondents.

The awareness of the respondents to organic food products in Jakarta is relatively high. Retailers or supermarkets are the places where consumers usually find organic products. Most of the respondents had purchased and consumed different organic food products before, hence, it emerged that they were familiar with organic products. Rice and vegetables are the most chosen organic products which have been purchased by them. The consumers' intention to buy organic foods in the future exists (73.60%). The results show relatively high agreement to several positive statements about organic food products but the benefits of them are less recognised.

Following recommendations are given for Indonesia

1. Education about organic products and organic farming is needed to enhance the awareness and knowledge of consumers about organic food products.
2. Proper information, especially in the traditional markets is necessary to differentiate organic products.
3. Support and assistance of the government to the farmers can help in development of organic farming in Indonesia.

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DEGREE OF MEETING THE NEEDS OF HOUSEHOLDS FROM VALUABLE NATURAL AREAS OF THE LUBLIN VOIVODESHIP**

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Abstract. Valuable natural areas are areas in which economic and farming activity is associated with the need to meet a range of requirements. This has an indirect effect on the level of income, and thus, also on the level of the satisfaction of needs. Satisfaction of the needs of members of households is the most important task. The main objective of the study was to assess the level of satisfaction of the needs of selected groups in the opinion of the heads of 150 households occupying valuable natural areas against 50 areas with low environmental preciousness. It has been questioned whether meeting the needs of households living in valuable natural areas and control communes of the Lublin voivodeship with low-level preciousness are at the same level. In addition, an attempt has been made to examine whether and to what extent the level of net income earned in households within valuable natural areas and the type of household by source of income affects the degree of the satisfaction of needs.

The results indicated that heads of households from the control communes assessed the level of satisfaction of the needs of the selected groups as higher.

Keywords: household, consumption, valuable natural areas.

JEL code: D19, Q56

Introduction

Man is the object of study of many sciences: philosophy, biology, psychology, sociology, and others. The interest of economy is mainly due to the fact that in order to meet their needs men acquire goods and services produced by businesses operating in the system of the national economy.

Meeting the needs of the consumer in households takes place to varying degrees, J. Szczepanski defines it as follows "consumer needs are the needs that lead to the consumption of material resources, goods and services having an economic value" (Szczepanski J., 1981). Both Polish and world literature abound with a variety of definitions of the household. The household definition of J. Piotrkowski should be recalled, according to which "households are closely associated with the family. They consist of all the material

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means and actions that are necessary for the existence and functioning of the family, and so the housing, its equipment, means of subsistence and organized household activities of the members. These measures and actions are designed to the best possible, under the circumstances, meeting the needs of the family and its members" (Piotrowski J., 1976). Households are all or part of the house occupied by one or more persons (Mutchler J.E., Krivo L., 1989).

Households, as business entities, must comply with the theory of rational consumer behaviour, according to which consumers (households) have a number of features and are subject to certain assumptions. As a result of efforts to meet the needs, households strive to achieve the highest and standard of living.

One of the definitions of natural valuable areas is the quoted definition by B. M. Dobrzanska that was formulated at the Fourth World Congress on National Parks and Protected Areas reading that natural valuable areas are "areas of land or sea with high biodiversity and the associated natural and cultural resources, used in a manner to ensure the protection of the existing diversity" (Dobrzanska B. M., 2007). From the economic point of view, valuable natural areas are areas on which business operations may in some way limit the conventional and traditional forms of management (Zbaraszewski W., Pienkowski D., Steingrube W., 2014). The Lublin region is characterized by a high share of valuable natural areas in the total area of the province. It is one of the provinces with the largest area of outstanding natural beauty (241 thousand ha). The economic situation of the region is not positive. Evidence of this is for example the fact that it is one of the regions with the highest levels of unemployment in rural areas in Poland (the registered unemployment rate in the country in 2013 was 14.4%).

Valuable natural areas of the Lublin voivodeship are areas where one can observe macroeconomic difficulties. This has an impact on living standards, as described by A. Zielinska, who indicates that the operation of valuable natural areas poses a risk to human capital, among others, through low quality of the life of inhabitants and low investment level (Zielinska A., 2008). The level of satisfaction of the needs of individuals and households is a reflection of their quality of life.

The main objective of the study is to assess the level of satisfaction of the needs of selected groups, in the opinion of the heads of 150 households occupying valuable natural areas, as compared to 50 from areas with low natural value. A question has been posed whether meeting the needs of households located within areas of natural value of the Lublin voivodeship and control municipalities with a low level of natural value are at the same level. In addition, an attempt has been made to examine to what extent the level of net income earned in households within valuable natural areas and the type of household by source of income affects the degree of satisfaction of needs. One can in fact assume that in the case of rural areas where there is a much greater use of self-service and self-supply, the role of these factors is reduced.

Methodology

The study was carried out in the Lublin voivodeship in the area of 40 communes. Basing on the Local Data Bank of the Central Statistical Office, at the commune level, analysis was carried out of the indicator in the context of the preciousness of ecological rural and urban - rural communes of the Lublin region (Guzal-Dec D., 2013). As a result, 30 communes were selected belonging to the group of the most ecologically valuable and 10 control communes without such qualities.

The samples for the research have been made based on the following assumptions: 5 households in each commune (total of 200) of at least 5 ha (of which 3 implement agri-environmental programmes, with the exception of organic farming Pack 2), and also in the context of 200 - 50 tourist farms (about 10% operating in the region of LODR, data as of 1.01.2011), 60 certified organic farms (about 10% of the region), 60 representing average conventional agriculture farms (5-10 ha) - typical agricultural production excluding special branches of agricultural production and the production of vegetable, where the main source of employment is to work on their own farm) and 30 large farms - greater than 50 ha / producing mainly for the market. This choice was aimed at identifying different types of households with special emphasis on the type of activity predisposed in natural areas and, in such a way, households implementing agri-environmental programmes; organic and agrotourism farms but also farms producing for the market only / intense / potentially causing collisions with the natural environment. Selection of households maintaining these assumptions was a deliberate choice.

Within the natural valuable municipalities surveys were carried out using a questionnaire. The study is based on data submitted to statistical analysis in the SPSS 20 program.

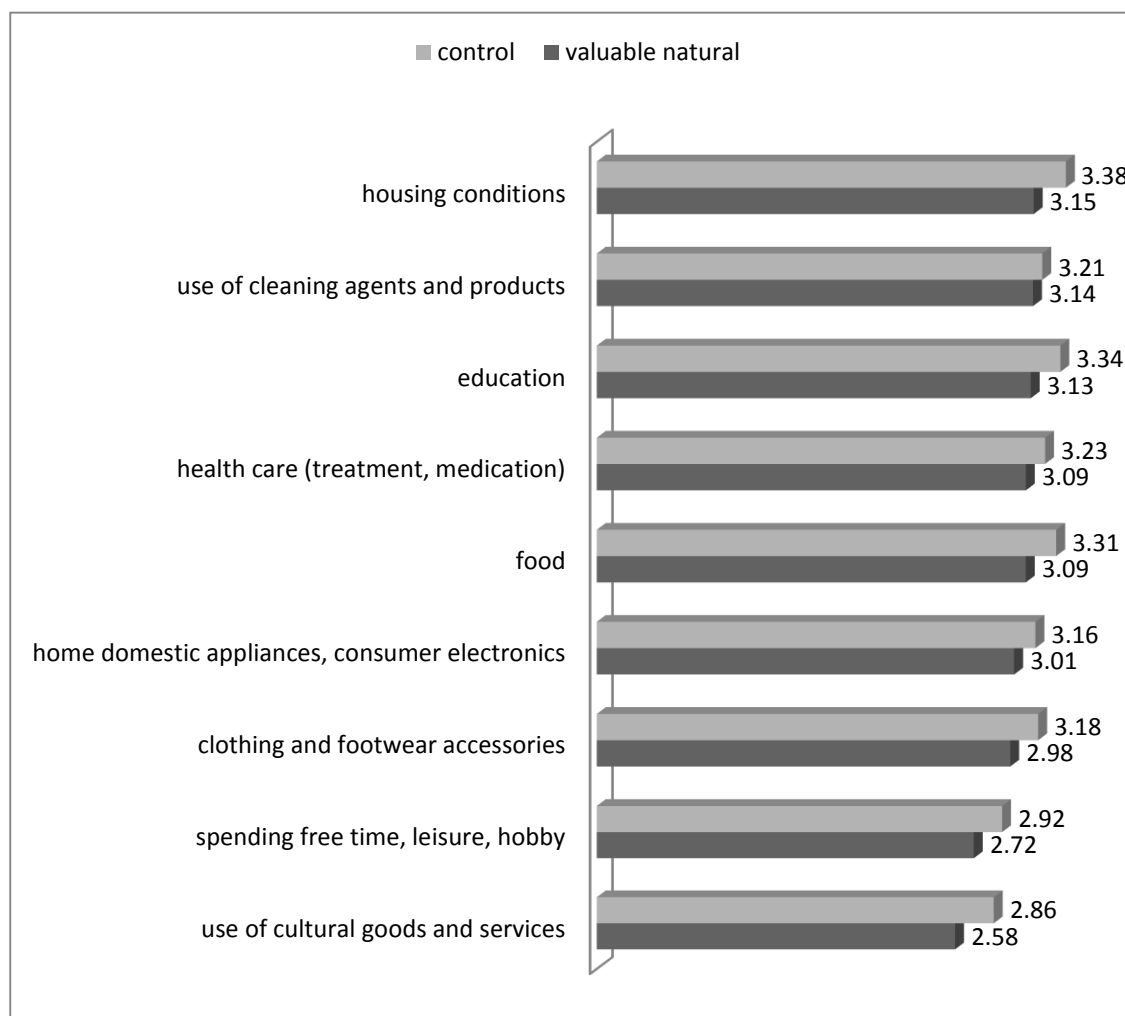
Research results

The vast majority of the surveyed households are entities performing agricultural production (91.3%). The average size of a farm was 27.51 ha (standard deviation 58.37).

The degree of satisfaction of consumer needs of household members depends largely on the level of income, savings held, or liabilities. In the case of the study group, 70% of household heads rated the financial situation of the household as an average. Only 1% of the respondents indicated that the situation is rather bad, and none of the people involved in the study assessed it very badly, while 27% of the respondents assessed their financial situation as rather good.

Among the groups of the needs which are the subject of analysis in this study there were both the basic needs as well as those of the higher order. They included: food, clothing and footwear accessories, apartment appliances, electronics, computers etc., housing conditions, meeting the needs of leisure, hobby, tourism and recreation, meeting the needs in the use of cultural goods and services (cinema, theatre, books, newspapers etc.), health care

(treatment, medication), meeting the needs in education, and in the use of cleaning and hygiene.



*- meeting the needs assessed on a scale of 1 to 5, where 1 is not meeting the needs to a sufficient degree, and 5 meeting the needs of a very high standard.

Source: autor's calculations based on empirical research

Fig. 1. The average level of the satisfaction of the needs of selected groups in the opinion of the respondents in the communes of natural value and control communes*

Meeting the needs in the use of cultural goods and services (cinema, theatre, books, newspapers etc.) and leisure activities (hobbies leisure, tourism and recreation) were rated the lowest. The average for these variables was at the level - respectively - 2.58 (standard deviation 0.98) and 2.72 (standard deviation 1.0). Also in the case of meeting needs in the areas of clothing and footwear average rating in the opinion of respondents was below 3 points – Figure. 1.

Despite the fact that in the other surveyed groups the average rating in the opinion of the respondents was above three points, it should be noted that the degree of satisfaction of needs was low. The percentage of respondents rating the degree of meeting the needs at a

very high level ranged from 0.6% of the respondents (cultural goods and services) to 4.9% of the respondents (health) in each group. A much greater group of respondents were of the opinion that their household needs were not being met to a sufficient degree. Nearly 5% of the respondents expressed the opinion that the needs related to food and clothing and footwear accessories do not meet their expectations.

Analyzing the level of satisfaction of the needs of households from the area of the control communes, it can be seen that, in the case of all groups, needs were met to a greater degree. Heads of households in this group assessed the level of meeting the needs both in terms of housing (mean 3.38, standard deviation 0.97) and the needs in the use of cultural goods and services (mean 2.86, standard deviation 0.80).

It should be pointed out that both in the case of households within valuable natural areas and the control group, respondents assessed the degree of satisfaction of needs where the right infrastructure was necessary to achieve them as the lowest. Both the use of cultural goods and services as well as a varied range of leisure activities, recreation or tourism require infrastructure elements in the immediate vicinity, such as a cinema, a theatre, a swimming pool and others. Low level of satisfaction with meeting these needs points to deficiencies in this area, resulting, *inter alia*, from the activities of local governments.

In search of factors that may have a significant impact on the level of consumption the level of income and type of household according to the main source of income should be mentioned. The ANOVA analysis of variance allows the conclusion that there is a significant statistical relationship between the level of needs within health protection and the type of household by the main source of income ($p = 0.040$; $F = 2.853$).

In other cases, the degree of satisfaction of the needs of household members is not dependent on the type of household. In the case of meeting the needs of health care: access to medical services, the possibility of purchasing drugs, there were significant differences between self-employed and other households (pensioners and people living on unearned sources). It can be assumed that this is related to the fact that in the case of households of retirees and pensioners, needs related to health care are much higher. The need to use health services is more common. The level of income is also much lower than in the households of self-employed people. This may translate to the possibility of the use of private service.

Table 1

Relationship between the level of net income per person at a household and the degree of satisfaction of consumer needs

Specification	value of Kendall's tau-c	level of significance
household appliances, electronics, computers etc.	0.342	0.000
meeting the needs in the use of cultural goods and services (cinema, theatre, books, newspapers etc.)	0.315	0.000
health care (treatment, medication)	0.310	0.000
meeting the needs of free time, leisure, hobby, tourism and recreation	0.310	0.000
meeting the needs of education	0.306	0.000
food	0.302	0.000
clothing and footwear accessories	0.287	0.000
housing conditions	0.277	0.000
meeting the needs in the use of cleaning agents and hygiene products	0.277	0.000

Source: *author's calculations based on empirical research*

Another, equally important factor is the level of income in the household. In all of the analyzed cases there were statistically significant relationships between the level of net income per a person in a household and the degree of satisfaction of consumer needs (Table 2). The only difference is the strength of association between the variables.

Using the J. Guilford scale, one can say that between the level of net income per person in a household and the level of satisfaction of needs associated with clothing and footwear, housing, and the use of cleaning and hygiene products the strength of association is weak ($0, 1 < \text{value of Kendall's tau-c} < 0.3$). However, in the case of other groups of consumer needs and the level of net income per person in households, the strength of association is average. It can be assumed that there are other non-economic factors affecting the degree of satisfaction of consumer needs.

Indeed, households in the pursuit of the highest level of satisfaction of needs can take adaptation action associated with the search for substitute products at a lower price, saving and the use of self-supply and self-service. These kinds of forms of the pursuit of maximum consumption were implemented in the surveyed households. However, the degree of the use of these methods varied. It can be assumed that in the households implementing consumption by the provision of goods and services on their own, the degree of satisfaction of the needs is higher. The conducted analysis of the data indicated that, in the case of households carrying out the needs connected with fresh food in the context of self-supply, there was a statistically significant relationship between the degree of supply of fresh food as part of self-supply and the degree of meeting the food needs of the household ($p = 0.021$; Kendall's tau-c = -0.134).

The resulting analysis material shows that, in the case of households that do not use self-supply in the supply of fresh food, there has been a higher percentage of households that meet the nutritional needs to a higher degree. One can speculate what factors may affect the schedule - the time and effort in providing food products may be inadequate to the satisfaction of consumption, and the financial outlays incurred for the self-production may be too high

compared to the cost associated with the purchase of goods on market. These considerations are a kind of the beginning of the subsequent analysis and an indication of the need to implement further research.

Conclusions

1. Analysis of the level of meeting the needs in the opinion of the heads of households showed that, within the research areas, heads of the households from the control communes with low levels of natural values assessed their level of satisfaction as higher.
2. The greatest differences in the assessment of the level of satisfaction of needs were in relation to the needs in the use of cultural goods and services. Average assessment of the satisfaction of the needs of households from valuable natural areas was higher than in the control communes. Problems related to meeting cultural needs are related to the availability of facilities providing opportunities for their implementation. This is the result of inadequate socio - cultural infrastructure, number of projects of this kind within the research area.
3. Given that natural valuable areas are areas for which tourism and recreation activities are desirable, due to the use of environmental values, it seems justified to draw attention to the need to expand the infrastructure of tourism and recreation. It would affect not only the level of meeting the needs of the residents but also raise the level of competitiveness of the area for tourists.
4. Level of income is the factor that has the greatest impact on the degree of satisfaction of consumer needs. In the case of all groups of respondents, there was a statistical dependence between the level of satisfaction of and the level of monthly income per a person in households. However, the strength of association between the needs of different groups and income levels was poor or average. Which suggests that there are other factors affecting the level of satisfaction of needs.
5. In the light of the research, it was proven that the type of household by source of income is a factor affecting the level of satisfaction of needs of only one case (health care).

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CONSUMER BEHAVIOUR IN THE BREAD MARKET IN LATVIA

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Abstract. The consumption of bread per capita sharply declines in Latvia, which increases competition among bread producers. In this situation, consumers become determiners of the market, demanding cheaper products of higher quality. To raise their competitiveness, it is important that bread producers analyse consumer behaviour. The research aim is to identify the latest trends in consumer behaviour concerning bread consumption. The present research involved a sociological survey of consumers. The questions were asked about consumption changes, motivations, knowledge, expectations, satisfaction and loyalty. The survey showed that price competition among kinds of bread and bread producers prevailed in Latvia. Bread quality was perceived as a permanent value. It was observed that consumers chose wheat bread by price, while rye bread by producer.

Key words: consumer behaviour, bread market

JEL code: D120

Introduction

A family and a household are two units playing a huge role in consumer behaviour. First, families and households contribute to private consumption, which is the largest share of all purchases and of total consumption (Eglite A., 2009; 2011). Second, families have the greatest influence on consumer behaviour, and individuals learn to be consumers particularly in their families and households.

Already since the 1990s, the average consumption of bread per capita has declined in Latvia. In 1996, the consumption of bread per capita was 89.68 kg, while in 2013 it reached only 38.62 kg (National Statistics Committee ..., 1997). Also in 2013, according to the latest statistical report, the consumption of wheat bread fell by 520 g/capita a year, while that of rye bread declined by 500 g/capita (Central Statistical Bureau..., 2014). The changes mainly affect bread producers, as not only the consumption of bread per capita but also the number of population decrease in Latvia.

The Latvian Bakers Association, which is the only professional organisation in this industry, actively functions in Latvia for 20 years. The association unites about 70% of all bread

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producing enterprises. Its members are united by common interests in developing the bread production industry, and its functions involve the defence and representation of bread producer interests at national government institutions. The association annually holds and invites bread producers to participate in various activities, for instance, Riga city festivals and milk, bread and honey festivals in Jelgava aimed at popularising bread as a valuable product. At these activities, consumers get familiarised with the bread producers, their products; the consumers may taste and purchase bread there. Customers can also get information on bread in tours at bread-baking plants, for example, Laci Ltd, Lielezers Ltd, Liepkalni Ltd and others. Some bread producers, for example, JSC Hanzas Maiznica and Laci Ltd, have published books for children that explain the process of bread production. In addition, a bakery Laci annually holds a contest "Bread Academy" for school children, delivering educational lectures and familiarising with the bread-baking plant. Yet, these activities are insufficient, as no increase in bread consumption is observed in Latvia.

The research aim is to identify the latest trends in consumer behaviour concerning bread consumption. Research tasks: 1) to theoretically describe the factors affecting consumer behaviour; 2) to identify the specifics of behaviour of bread consumers in Latvia in the bread market.

The present research, conducted within a project, is based on the economics of consumer choice. Demand and, in its turn, output and sales are based on needs and wants. As regards market segmentation, a fundamental classification of consumers is as follows: consumers that consume bread and those who do not do it. It is also important to know changes in consumption: at what time bread is consumed? Where bread is consumed? What are the ways of consuming bread? What quantities of bread are consumed? At any stage of decision-making, such personal variables as gender, age, income, lifestyle and character make influence on purchasing and consuming goods.

It is important to examine the personality characteristics, personal values and lifestyle of consumers. When making a decision on a purchase, consumers have their own individual motivation that may be explained by the uniqueness of every personality. Personality may be defined as reactions on external stimuli. Values also determine the individual distinctions among consumers. A lifestyle is the way individuals live, spend their time and money. A lifestyle is a result of interaction among various economic, social and cultural drivers.

Why individuals make purchases may be identified by analysing consumer motivations. Motivations to make purchases and to consume involve satisfying a need. Individuals may be driven by various needs – physiological, safety, health and other needs –, which contribute to their survival. A greater role is played by other needs not related to survival, for instance, enjoyment. Enterprises can motivate consumers by stimulating some need, for example, the need for healthy food. For many consumers, an effective stimulus could be a price cut or another stimulus, for example, that within consumer loyalty programmes. If the motivation system involves distinguished functional consequences, e.g. a product that improves human

health, the attributes that contain information on health promotion are of great importance. (Kraus A., 2015).

Consumer knowledge may be used in promoting goods. Consumer knowledge is what is kept in the memories of consumers. Key components of consumer knowledge are knowledge on the product (the bread), knowledge on the purchase, knowledge on the use and consumption of the product, knowledge on consumer opinions and knowledge about oneself. Examining this issue leads to many findings on problems, individuals' knowledge or unwanted knowledge (wrong stereotypes), which can influence the choice of goods. New or earlier unnoticed consumption ways may be also identified. It is also necessary to focus on where consumer knowledge is built up and whether this knowledge is based on personal experience.

Consumer behaviour theory stresses that it depends only on the satisfaction of consumers with their purchases whether they ever buy the goods again. A positive post-purchase assessment raises the probability of repeated purchases by consumers. The satisfaction of consumers is crucially important not only in customer retention strategies but also useful in attracting new customers.

Even though positive experience does not guarantee the loyalty of consumers, an opportunity that consumers remain loyal to an enterprise depends on the extent of satisfaction. It is not enough to only satisfy the needs of customers, it is necessary to "fascinate" customers, which is possible only at full satisfaction. The satisfaction of consumers also reduces sensitivity to price. Consumers are usually ready to pay more for the goods they highly appreciate. The goods having a higher appreciation level have lower consumer sensitivity to price. Consumers make their assessments before making their purchases, which allows them to decide what goods to buy and consume. Post-purchase and consumption assessments are made in a similar way. Enterprises examine consumer assessments from the perspective of consumer satisfaction (Goldsmith R., 2010). Information on consumer satisfaction is important for several reasons. The extent of satisfaction or dissatisfaction influence repeated purchases, oral communication and communication on the Internet as well as the level of complaints. By knowing the satisfaction or dissatisfaction of a competitor's customers, it is possible to attract the competitor's customers.

The satisfaction of consumers depends on product quality. Besides, it also depends on consumer expectations.

Expected consumption experience is not a less important factor. Satisfaction depends on pre-purchase expectations and a comparison of real consumption results. Dissatisfaction may arise not only from a negative result when a product does not meet consumers' expectations. Consumer expectations expand not only beyond the qualities of products but may be also attributed to the entire company producing or marketing the products (Tikkanen, I., Vääriskoski, M., 2010).

Making a decision on a purchase and consumption depends on the role played by one or another member of a household concerning the particular product. There are products that are bought by one member of a household or family, yet, the products are used by everyone, and there are goods that are used individually. Some member of a family may choose a product but the purchase is paid by another. If there are some special needs or necessities, the members of a family who do not participate in shopping may make purchase decisions (Blackwell R., 2007). Decisions on purchasing bread affect both a family's menu, choices of foods at home and eating rituals.

What determines a family's purchases? The factors are as follows: the roles of family members and partners and their influence on various decision-making stages; the employment factor; the influences of genders, the family's life cycle, the family's expenses and their distribution, the household's size and composition.

Research results and discussion

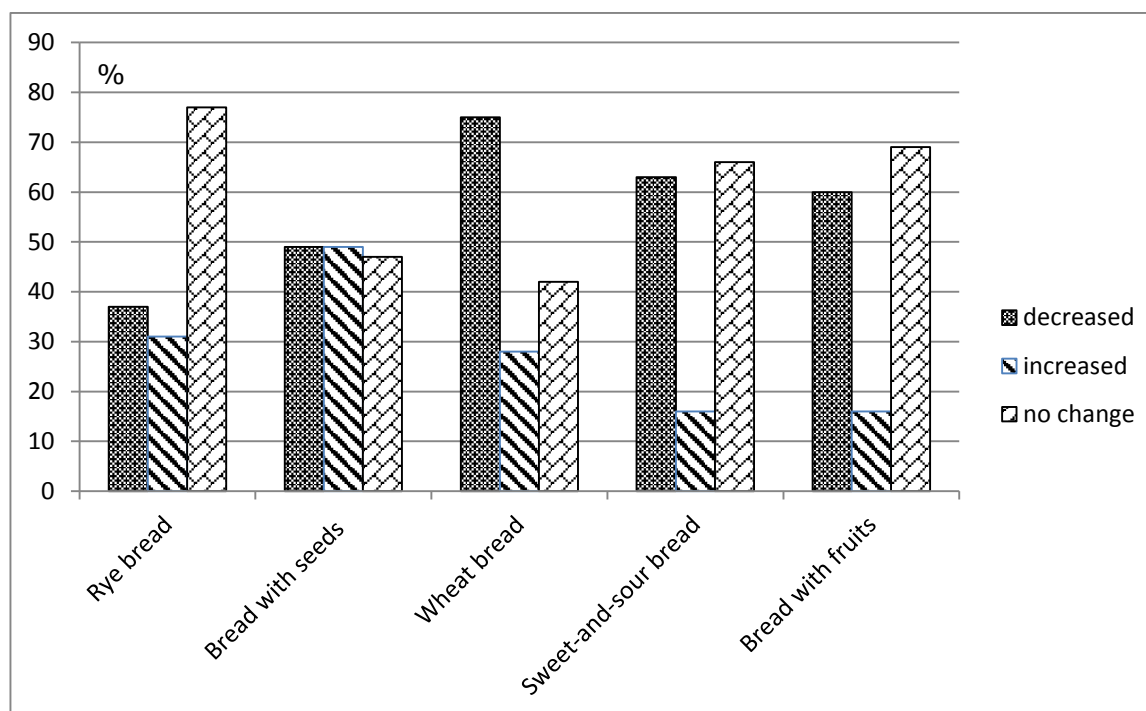
In the autumn of 2014, a survey of residents on bread consumption habits was carried out in the form of questionnaires and interviews. The questions were asked about consumers' knowledge, their perception of healthiness of bread, trends regarding consumption, bread quality, purchases, purchase sites and the choice of producers. The survey findings were presented to the bread producers that assisted in explaining some relationships and acquired ideas for popularising their bread as well.

A non-probability sample population with entry quotas for three different population generations, which covered the whole territory of Latvia, was selected for the survey. Questionnaires were filled out on the Internet. In the questionnaires, 138 respondents – adults – revealed data on themselves – 44 men and 94 women (32% were men and 68% were women). Of the respondents, 52% had higher education, 43% had secondary or secondary special education and 4% had primary education. The individuals with primary education were mostly retirement-age residents mainly from rural areas. Of the respondents, 38% were employed as specialists or government officials, 27% were students, 9% pensioners and 9% were managers as well as there were solely proprietors, housekeepers, performers of physical work, an unemployed individual and farmers.

Almost half (45%) of the respondents had a monthly income, measured per household member, within a range of EUR 201-400, while 17% had an income less than EUR 200 and 15% had an income of more than EUR 601. The respondents represented the entire Latvia. Of them, 40% lived in rural areas, 12% in Riga, while 48% lived in other Latvia's towns and cities. Of the respondents, 10% lived alone, 23% were two-people households, 24% were three-people households, while 43% of the households had 4 or more members. The same percentage of households (43%) had under-age children.

Changes in the consumption of bread. As regards the changes in bread consumption over the last few years, approximately two fifths believed that in general the consumption of bread

had not changed, while the other two fifths supposed that it declined, and one fifth was convinced that the consumption of bread had not changed in their household. On the whole, the consumption of bread has decreased. The most stable consumption, according to the respondents, was specific to rye bread, sweet-and-sour bread and bread with fruits.



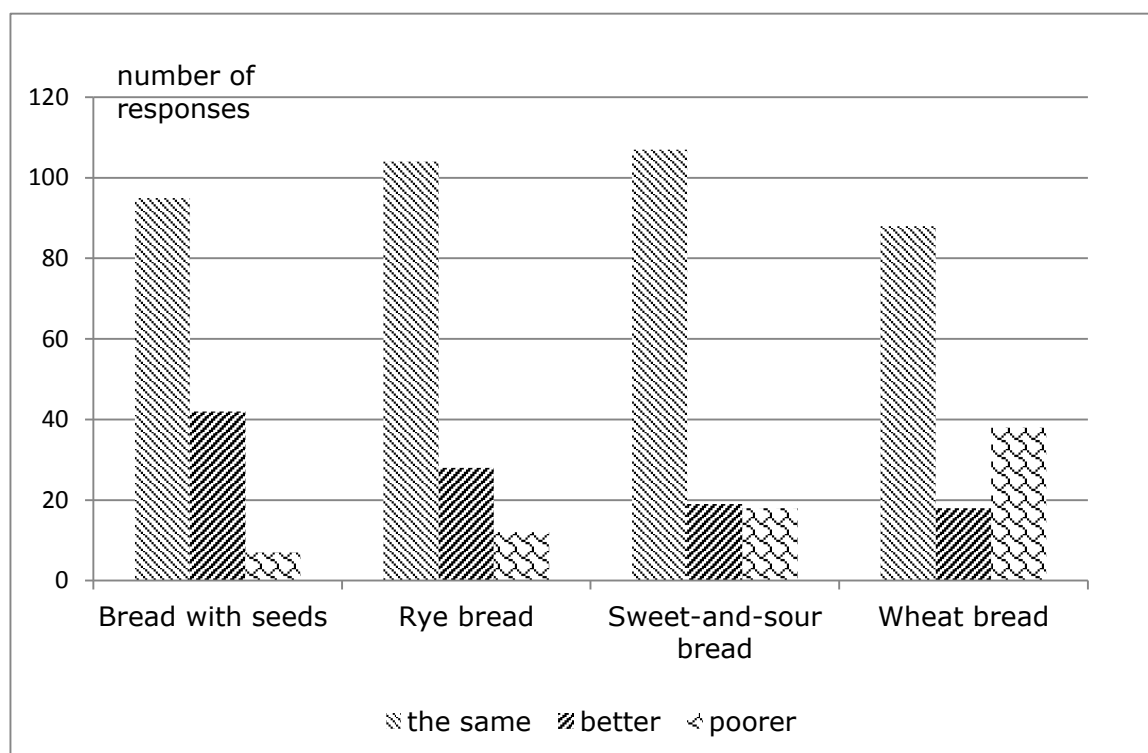
Source: author's construction

Fig.1. Changes in consumption by sort of bread

The respondents most often pointed that particularly the consumption of wheat bread declined. The respondents also said that the consumption of such kinds of bread as sweet-and-sour bread and bread with fruits decreased as well. As regards rye bread, the respondents most often mentioned that the consumption of this sort of bread had not declined. The most stable positions belonged to bread with seeds, as the respondents equally frequently mentioned a decrease, an increase and no change in consumption.

Changes in quality. As regards the quality of bread, more than two thirds of all the respondents believed that it remained the same as in the last year. Bread quality was regarded as a constant value. Better quality, according to the respondents, was specific to bread with seeds, as they (30%) said that the quality of bread with seeds rose. The number of positive replies exceeded that of negative ones regarding rye bread. The respondents' opinions on the quality of sweet-and-sour bread were the most stable, as most of them believed that the quality of it was constantly high, while the positive and negative opinions, according to the respondents' experience, in terms of number, were in balance and did not exceed one eighth of the total respondents. The most negative opinions on quality changes were attributed to wheat bread. Although most of the respondents supposed that the quality remained the same, yet, more than a fourth of them believed the quality of wheat bread declined. Perhaps, it is

associated with the previous question on bread consumption decreases, as the respondents believed that the greatest decline was observed for wheat bread.



Source: *author's construction*

Fig.2. Changes in bread quality from the perspective of respondents in the last year

For 54% of the respondents, the bread purchase sites were supermarket chains Rimi, Maxima and Super Netto, national stores (Lats, Top and Aibe) were in the second place, while small stores took the third position.

The respondents mentioned that they mainly bought the bread produced by large enterprises. More than half of them (52%) purchased the bread mainly produced by Latvia's largest bakeries (JCS Hanzas Maiznica, Fazer Latvija Ltd or JSC Latvijas Maiznieks). Of the respondents, 23% preferred the bread baked at small bakeries. One tenth preferred the bread baked on the spot at supermarkets, for instance, Rimi.

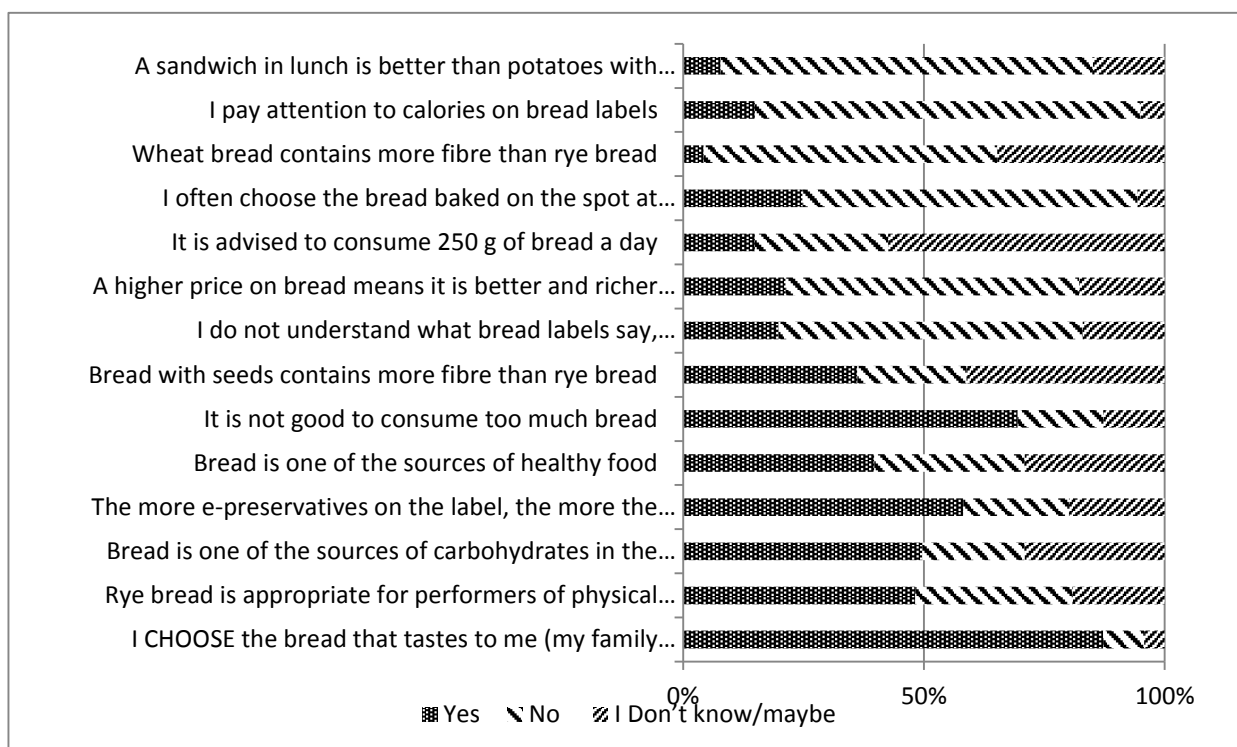
Bread's nutritional value and the respondents' knowledge. The percentages of the respondents for whom bread's nutritional value was important and unimportant were equal (29%), while in general almost half (46%) said it was important or very important. Bread's nutritional value did not play the most important role in the choice of bread, as the average rating was 3.3 on a five-point scale (1 – unimportant; 5 – most important). Only 11% of the respondents mentioned it as unimportant.

To better understand what preconceptions and stereotypes prevail in Latvia's society regarding bread's nutritional value, the present research used several assertions. An absolute majority of the respondents (87%) agreed that they chose the bread that tasted to their family members. Of the respondents, 70% believed that it was not good to consume too much bread (before it was 53%) (Eglite A., Kunkulberga D., ... 2008). Some 58% supposed that the more

e-preservatives on the label, the more the bread was harmful (this opinion remains at the same level). About half of the residents agreed with an assertion that bread was the most significant source of carbohydrates in diets (50%) and that rye bread was better suited for performers of physical work (48%). Earlier, two thirds of the population regarded rye bread as “bread of labourers”. Of the respondents, 36% believed bread with seeds contained more fibre than rye bread. Still 80% of the respondents did not pay attention to the amount of calories specified on bread labels, and only 15% did it. Some 70% supposed that a lunch meal might not be replaced with sandwiches. Almost two thirds (63%) of the respondents admitted that they did not understand what was written on bread labels, hence, they did not read them.

Approximately a third also admitted that they were not aware of such ideas as “bread is one of the sources of healthy nutrition” and “bread is the most essential source of carbohydrates in diets” as well as the issue of which bread contains more fibre – wheat bread or rye bread. Latvia’s population considered bread with seeds and rye bread the healthiest sorts of bread.

Education of the population. The respondents were asked about the best way of educating people on bread’s nutritional value and its role in diets, and their opinions were as follows:



Source: author's construction

Fig.3. Replies to the question „Do you agree with an assertion...?“

The most effective way, according to the respondents, was degustations held at stores, in which people might taste a product as well as get information on its nutritional value and how it was healthy and important in the daily diet. A third of the respondents thought this way. The second most effective way of spreading information, according to the respondents, was articles on the Internet. It has to be added that this opinion was specific to the respondents aged under 54. The third most popular point of view was that TV shows could educate a lot of

people on bread's nutritional value, and this point of view was widespread among all age groups. More than a tenth of the respondents, mainly aged over 45, viewed articles in newspapers as the most useful.

Among other proposals, the respondents mentioned complex activities at which children could be educated on nutritional value at kindergartens and schools and which involved all the above-mentioned activities. A few respondents believed that "it is not a good idea to educate people about that" because "everyone can decide on what and how to eat".

Factors affecting the choice of bread at stores. The most important factor in the choice of bread, for all the sorts of bread, was price. It was especially important for the choice of wheat bread. In Latvia, wheat bread is a sort of bread with the broadest assortment and with comparatively similar taste properties. The second most important factor was bread's expiry date, especially for wheat bread, bread with seeds and sweet-and-sour bread. Yet, as regards rye bread, in terms of importance, the price was followed by the producer, which was the second most important factor for this sort of bread. Probably it may be explained by the diverse and wide assortment of rye bread as well as every bakery's special products and special niche. Rye bread features the most diverse taste nuances intended for the broadest range of tastes and the highest range of prices. For all sorts of bread, the third factor was the producer, with the exception of rye bread, for which expiry dates were in the third place. This may be explained by the fact that rye bread usually has longer expiry dates.

The fourth most important factor in the choice of wheat bread and bread with seeds was the external appearance, which involved its visual assessment. Rye bread's external appearance, according to the respondents, was not so important because the fourth place was taken by consumers' loyalty – people bought the same bread they bought always, even if it sometimes was not visually attractive. The most loyal consumers were observed particularly for rye bread and bread with seeds; if they had found the most attractive and tastiest bread, they sought to buy it again. The design and layout of packaging was the least important criterion in the choice of bread, while it was more important for wheat bread and bread with seeds than for the other sorts of bread.

In the choice of bread, young consumers preferred bread's taste and expiry dates, followed by bread's aroma, price and food additives (e-preservatives). However, the producer, packaging and weight of bread were less important for them when buying bread.

Preconditions for greater bread consumption. The respondents were requested to choose the factors and tell under what conditions they would use more bread in their diet. The present research used several assertions: lower price, tastier bread, greater price discounts, if I would be informed this bread is healthy, wider assortment, longer expiry dates for bread, appropriate packaging (weight/kind) for me is available, better visual appearance of bread.

Even though *rye bread* was the most popular among the respondents, yet, the most important reason for buying more rye bread was, first, a better taste and, second, a lower

price. The respondents expressed their opinions most actively regarding rye bread. The respondents also allowed for the possibility that they would consume more rye bread if they carried a greater physical burden or if the packaging of bread met their requirements.

The reasons for a greater consumption of bread with seeds were different. First, a lower price would be a reason for making a purchase as well as a broader assortment, according to the consumers, would be necessary. Also, if the consumers were convinced that bread with seeds was the healthiest and had knowledge that consuming the bread would result in better health. If the bread were tastier, sold at discount prices more frequently and had a better external appearance, its consumption would also increase. Bread is consumed in greater quantities with increase in physical activities among consumers. One has to conclude that bread with seeds had the most ambiguous assessments. All the factors were equally attributable to the choice of this bread.

A potential increase in the consumption of wheat bread, according to the respondents, should be associated with information on how healthy and necessary in the daily diet this bread is as well as longer expiry dates are needed for the bread; the third aspect is as follows: if the taste of wheat bread were improved, it would be consumed more. Wheat bread is the only bread, the assortment of which the respondents do not object to or do not want to broaden.

Assessing the prospects for increasing the consumption of sweet-and-sour bread was the most difficult to the respondents. Most of them had no definite opinion. The key suggestions were a lower price and tastier bread. More frequent discount prices and appropriate packaging could encourage consumers to buy more sweet-and-sour bread.

Lower prices as well as an argument that rye bread is tastier could convince pensioners to consume more rye bread and sweet-and-sour bread. For pensioners, the external appearance and more physical activity were the least important factors, which would not be a reason for greater bread consumption. Students would use more bread in their diet if there were more frequent discount prices on rye bread and if wheat bread and rye bread were tastier. If bread with seeds had a broader assortment, it would be possible to find the one that is special and tasty.

Conclusions, proposals, recommendations

1. The behaviour of consumers and changes in consumption are affected by consumers' motivations, knowledge, experience, personality, household needs and traditions, self-respect and loyalty.
2. Latvia's residents still buy the bread that is tasty to them and their family members. They mainly buy bread at supermarket chains. Latvia's residents still believe that a warm lunch meal may not be replaced with bread.
3. Of the respondents, 80% do not read product labels, as the majority of them do not even try to understand what is written on the label. In Latvia, consumers believe that the

quality of bread is mainly constant; they attribute an improvement in quality to bread with seeds but sometimes they attribute a decrease in quality to wheat bread. In addition, they attribute the greatest decline in bread consumption to white bread.

4. Price competition among sorts of bread and bread producers prevails in Latvia. Consumers choose wheat bread by price, while rye bread by producer. Many consumers are in search of their bread with seeds as a source of healthy food.

5. Consumers are loyal to their sort of bread and their bread producer, even if sometimes the quality of bread (for a short period) has been poorer.

Proposals

1. Consumers have to be informed more about the kinds of bread, bread's nutritional value, bread consumption and bread producers.

2. Transdisciplinary research on the role of bread in the diet has to be conducted engaging scientists and the public.

Enterprises can shape consumer expectations by effective marketing strategies, for instance, advertising. They just do not have to promise too much. Expectations may depend on the price of goods. A high price usually causes higher requirements and greater expectations. The expectations and satisfaction of consumers can be affected by other techniques, for instance, a banal participation in a survey on consumer opinions increases the satisfaction of consumers. This is because consumers feel appreciated if being asked about their opinion; half of consumers feel more satisfied due to it. Consumers believe that a product is important but this is not the only factor for their satisfaction.

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SOCIAL NETWORKS AS INFORMATION CHANNEL FOR ATTRACTION OF FOREIGN STUDENTS

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Abstract. Increase of international competition for qualified young persons to attract them for higher education is on everyday activities agenda for many higher education establishments worldwide as well as research topic for academic researchers. Development of information technologies and their possibilities are used also by successful higher education establishments to attract students including students from foreign countries. In more and more cases, social networks are the first information source about dream higher education study programmes and later followed by more detailed information on webpage and other information sources. The aim of this paper is to analyse current developments of social network use for higher education marketing in foreign markets. Tasks of the research: update recent scientific findings in social media application for attraction of prospective students; find statistical data on recent situation in the country related to foreign students in HEI; update the expert views on information on higher education institutions in social networks; make comparisons of gateway websites for prospective foreign students based on different criteria. Methods used in the research: analysis of scientific literature, analysis of information in social networks related to higher education marketing in foreign markets, in – depth interviews with foreign relation specialists in higher education institutions, expert survey of public relation specialists and information technology specialists. For most of the evaluations of social network applications and statements in the survey were used evaluations in scale 1 – 10. The research results have indicated that a lot can be done to provide reasonable information about the higher education in Latvia and use recent technology and marketing solutions to attract foreign students.

Key words: social networks, competitiveness, foreign markets, higher education.

JEL code: M31; L86; I23

Introduction

International competition for students develop different marketing strategies specific for this field. A lot of academic research has been conducted to realise the best and most effective approaches. To share the research findings even several specific international journals have

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been created to publish scientific papers. The aim of this paper is to analyse current developments of social network use for higher education marketing on foreign markets. Tasks of the research: update recent scientific findings in social media application for attraction of prospective students; find statistical data on recent situation in the country related to foreign students in HEI; update the expert views on information on higher education institutions in social networks; make comparisons of gateway websites for prospective foreign students based on different criteria. Research methods applied: analysis of scientific literature, analysis of statistic data, survey of social media experts (survey was conducted in December 2014). For survey questionnaire evaluation scale 1 – 10 was applied for most of the questions. For survey data processing were used indicators of descriptive statistics– indicators of central tendency or location and indicators of variability.

Theoretical background

The need for social media in the context of international higher education

The increased global competition for international students among universities has resulted in universities having to find ways to differentiate themselves from the crowd (Hemsley-Brown & Goonawardana, 2007). Several researchers in many countries have paid attention and have conducted deep research on different aspects of attracting students by use of social media (Oberer and Erkollar, 2012), widely social media use possibility for higher education institutions in providing an opportunity for a new level of engagement with prospective students (Kowalik, 2011). Researchers from the USA and China have made research on marketing via social media (Luo, *et al.*, 2013) and have found four factors attracting young students. Exploring social media relationships and use of specific tools for attraction of new persons (Hansen, 2011) and international market development through networks (Johnsen&Johnsen, 1999) are new challenges for marketing strategies developers including promoting of higher education institutions and study programmes.

Several research has been conducted related to national characteristics and specifics also for social network applications for higher education marketing needs (Chauhan & Pillai, 2013). In academic research education and social stratification has been applied across Europe and the obtained results are valuable for marketing needs (Vryonides & Lamprianou, 2013).

Some early studies have showed that brand image portrayed by a university plays a crucial role in public attitudes towards that institutions and the whole sector (Landrum et al., 1998) and institutions need to develop a distinct image to create a competitive advantage in the market (Paramewaran and Glowcka 1995). This image likely has an impact of student's willingness to apply to that institution (Ivy, 2001).

In overall, internet adoption was one of the most powerful changes at organizational and personal levels and is now catalyzing the next revolution of communication through social media (Qualman, 2010). Therefore, those findings can be also attributed to high education sector. Every country has its own social networks and usage trends.

These regional differences should be considered if institutions are willing to engage with prospective students from the targeted region or country. However, the overall trends of social media usage are not tied to specific country or region.

Social media are used in different countries and follow similar patterns. Students are the centre of activity for higher education institutions, and effective communication with prospective students will certainly contribute to resource efficiency.

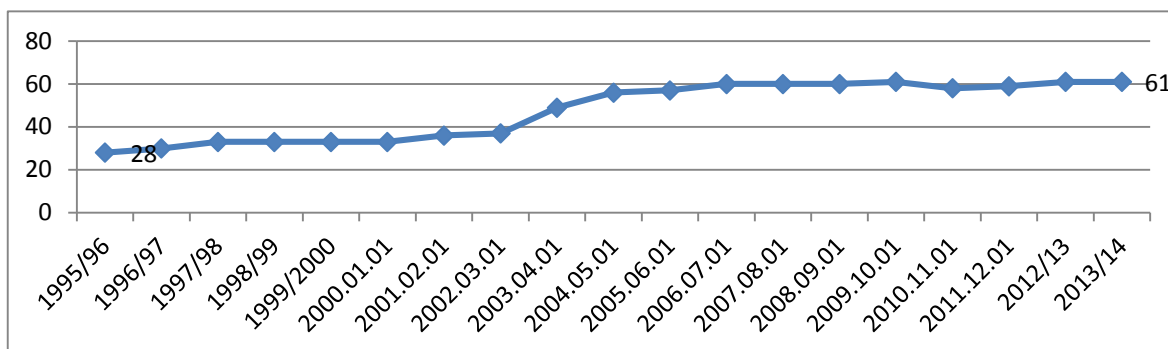
Traditional recruitment methods like exhibitions tend to be more costly and have lack of possibility to continue conversation with prospective students after the first contact. Instead social networks are usually less expensive and provide cost-effective way to reach a large audience; although social media still have costs associated with time and skills required to manage content and others. Moreover, if social media are used correctly and this means involving existing students or prospective students to engage into conversation or content, then promptly provided information would positively influence prospective students' perceptions. The social media offer more credible and cost-effective connectivity with prospective students and give such advantages as relevance, speed, cost and personalization. Like any new practice, the use of social media in international recruitment poses challenges and opportunities.

However, institutions that embrace it can realise a significant competitive advantage. Nevertheless, authors believe that both, website and social networks are very important if used correctly to make first impression, attract potential student and convert them to real student. It should be taken into account that web resources act in different ways, have different capabilities and goals. Website gives more control over the design and entire content, it has multi-language support, on website information is more structured, however, usually user needs additional efforts to find the website and there are limited opportunities to interact with the audience. Contrary, Facebook (FB) has limited opportunities if speaking about structured content, design and multi-language support, however, users usually need less efforts to find page on Facebook or click on adverts that appears on their screen.

Facebook users usually use it daily for interaction with friends, reading news or other daily activities, Facebook is for free (not advertise own page) and using FB the one can easier interact with the users, create word of mouth affect and make conversations with prospect students.

Research results and discussion

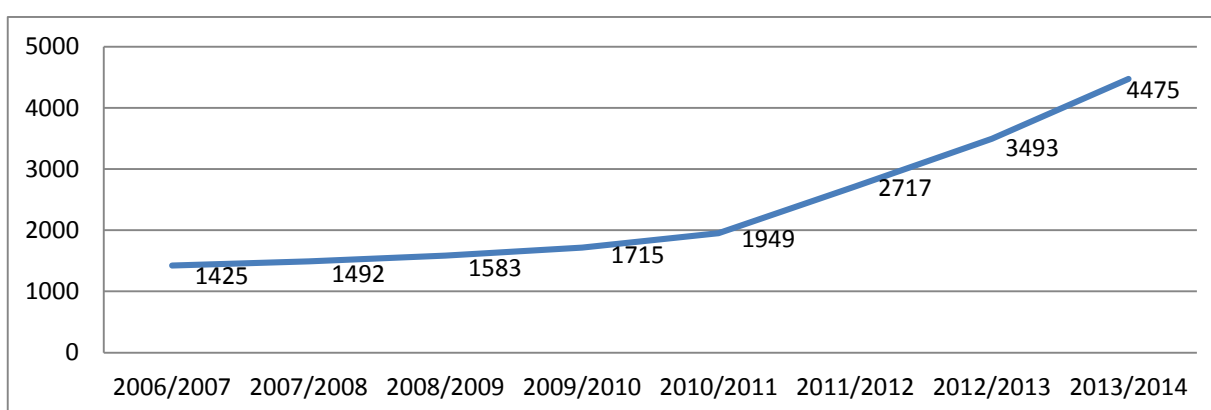
Statistical data indicate that the number of higher education institutions in Latvia is growing (Figure 1) but number of enrolment is decreasing during last years (CSB, 2015).



Source: author's construction based on the Central Statistical Bureau of the Republic of Latvia data

Fig. 1. **Number of higher education institutions and colleges in the Republic of Latvia in 2015**

Statistical data indicate that number of foreign students enrolled in higher education institutions in Latvia is growing during last years (figure 2).



Source: author's construction based on the Ministry of Education of Latvia data

Fig. 2. **The number of foreign students enrolled in HEI in Latvia from 2006/2007 to 2013/2014**

In Republic of Latvia the number of foreign students enrolled in higher education institutions is below the EU average – however, it has increased significantly nearly doubling from 2717 in the academic year of 2011/2012 to 4475 in 2013/2014 resulting in 4.75% of total students enrolled. This should however be considered in the context of total decline of the number of students studying in higher education institutions in Latvia.

Based on the findings of Latvian Higher Education Export evaluation report^{**} every student contributes to the economy of Latvia with an average of EUR 5000 per academic year, which in 2013/14 would generate approximately EUR 22.37 million. In academic year 2013/14 from total 89659 students in colleges and universities in Latvia 4475 (5%) were foreign students. Top universities for studies in Latvia for foreign students were Riga Stradins University - RSU (994 students), Riga Technical University - RTU (874 students), University of Latvia - LU (507 students) and Baltic International Academy - BSA (419 students). Other HEI had less than 300 hundred students each, see table 1.

^{**} KPMG Baltics. Latvian Higher Education Export evaluation report. Seen 11.01.2015, available: <http://petijumi.mk.gov.lv/ui/DocumentContent.aspx?ID=3938>

Table 1

Foreign students in Latvia by countries (countries with more than 100 students) in 2013/14

Country	Total student count	Share from total students (%)
Germany	746	17
Russia	483	11
Uzbekistan	366	8
Ukraine	233	5
Lithuania	209	5
Turkey	199	4
Sweden	198	4
Belarus	170	4
India	149	3
Kazakhstan	143	3
France	134	3
Norway	133	3
Azerbaijan	125	3
Georgia	106	2
Spain	106	2
Other countries in total with less than 100 students per each country	975	22
Total	4475	100

Source: Ministry of Education and Science, Republic of Latvia

Data of the table 1 indicate that most students are from Germany, Russia, Uzbekistan, the Ukraine and Lithuania.

Social media experts were asked to evaluate information on higher education institutions and study programmes in social networks and the main statistical indicators of the evaluations are included in table 2.

Table 2

Main statistical indicators of expert's evaluations on information on higher education institutions in social networks

	How important for foreign students is the information on studies in Latvia in social networks	How you evaluate the information for foreign students on studies in Latvia obtained on social networks
Mean	8	7
Std. Error of Mean	0.477	0.348
Median	8	7
Mode	8	8
Standard Deviation	1.651	1.206
Variance	2.727	1455
Range	5	4
Minimum	5	4
Maximum	10	8

Source: author's calculations based on expert survey conducted in December 2014 (n=12), evaluation scale 1 – 10, where 1 – not important; 10 – very important

Expert evaluations indicate that the evaluations of experts are surprisingly high for importance of social media in information provision about higher education institutions and study programmes (the lowest evaluation was 5).

From practical point of view usually website or social network account, Facebook (FB) in particular, acts as an official gateway of studies in any country, for instance, in Latvia those resources are www.facebook.com/studyinlatvia and www.studyinlatvia.eu.

Most of the countries in the EU have gateways that are run by the official representatives of the country or work in cooperation with them. For instance, *Study in Latvia* cooperates with the Ministry of Education and Science. Still not every company or establishment uses Facebook.

In terms of attracting foreign students, among 28 EU countries, each (except Luxembourg) has separate website for foreign students about studies in their country.

In the gateway website prospective foreign students can find detailed information about studies in the country and from there navigate to concrete universities website. 17 webpages of HEI (data on January 1, 2015) of them also uses FB, some have accounts in other social networks as well. Of course, registered account in social media or presence of website do not really mean that it attracts someone. Accounts and webpage should meet different criteria (for instance, easy to find, contain clear and extensive information, be attractive, accessible via different devices, should be efficiently promoted etc.).

Based on a list of criteria, the authors of this paper have compared website and FB pages in the Baltic States (Table 5). In general, all three countries have both website and FB page to promote higher education in country for foreign students.

Websites provide detailed and structured information about study process, study programmes, fees, scholarships, visas, recommendations etc. Facebook is more oriented on showing good expression about country itself.

The results show that Latvia has overall lower evaluations by different criteria – having two different pages is misleading and can affect credibility, too fragmented information, websites are not attractive for students, are difficult to access via mobile phones. Detailed description follows.

Two different websites for the same purpose (attracting and giving information for prospective foreign students). The one is maintained by the Academic Information Centre (AIC) that is involved in international education fairs and has published printed catalogues (available as PDFs in website).

The other is maintained by the State Education Development Agency (SEDA) and other contributors. It is almost impossible to synchronize the information in AIC and SEDA websites and this could be misleading or at least reduce credibility of prospective students. It was also found that information is fragmented among both websites and other websites providing information on higher education establishments and study programmes.

From one point of view webpage in *.eu domain (maintained by the AIC) is more active and have more attractive information (for instance, recommendation videos) but from other point of view the website do not have full information about study programmes, instead it *sends* user to visit page in *.lv domain. While *.lv domain page also do not have information student would need. Instead if prospective student wants to find more about scholarships, he has to visit the third website of the State Education Development Agency.

As of search possibilities within a website, *.lv page lacks this possibility. This could be because of technical limitations as much information in website is provided in PDFs or other *heavy* formats. This also increases page load time and affects ability to browse website using mobile phones.

Counties websites are more or less adapted to be accessed using different devices but Latvian webpage is the most difficult to access, navigate and find information using mobile device. Unfortunately in overall Latvian website *.lv also has the worst experience in finding the exact study programmes user can be interested in.

Much information is provided in PDFs of *flash*, and there is lack of usable filters that exist on other two pages. It was not also easy enough to find the exact procedure of admission. This created bad user experience. However, it has attractive videos from foreign students already studying in different universities in Latvia as was not found on other websites.

The main study language in all countries for foreign students is English; however, Lithuanian and Estonian websites are also available in Russian. As of usage of social media, countries are more active in their Facebook accounts. Accounts are easy to find using search criteria "*Study in <country>*". Latvian FB page (studyinlatviaLV) is relatively new and was created in the middle of 2014 and has about 1300 *total page likes* (situation on January 1, 2015). The page is new; however, it has quite high activity having posts each week. Lithuanian FB page (studyinlithuania) is the least active and has about 2000 *total page likes* (situation on January 1, 2015).

The most active FB page is Estonian one (studyinestonia), it has more than 5000 *total page likes* (situation on January 1, 2015), more than one post is created each week, some basic interaction can be recognized on FB page. All three FB pages mainly contain posts about topical events in general; however, Estonian page has more education related posts. Estonians are more active also in other social media – in *Twitter* and *Youtube*.

As of concrete establishments, most of them really do not use social networks or more precise – do not use social networks for foreign students attraction. For instance, one of the biggest universities in Latvia (University of Latvia) –it is the biggest university also in the Baltic states have FB page but it is written in Latvian. There is no separate page for international students or potential foreign students. The same can be concluded for other universities in Latvia. The same cannot be said for Estonia where active FB is running in English (e.g., University of Tartu, Tallinn University of Technology) and Lithuania (e.g., Vilnius University).

Results of evaluation on use of social networks for foreign students on higher education establishments in the Baltic states are included in table 3.

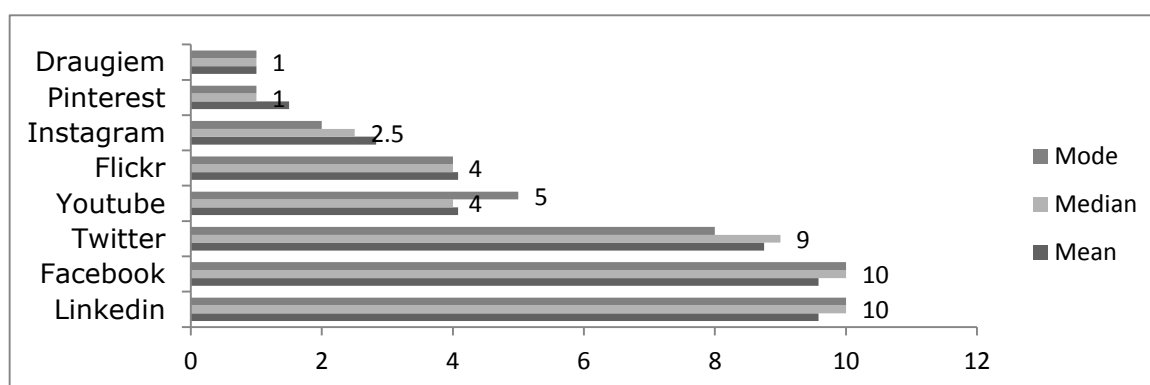
Table 2

Comparison of gateway web sites for prospective foreign students based on different criteria (situation on January 05, 2015)

	Latvia		Lithuania	Estonia
Website	www.studyinlatvia.eu	www.studyinlatvia.lv	http://www.studyinlithuania.lt/	http://www.studyinestonia.ee/
Responsible institution	Academic Information Centre	State Education Development Agency	Education Exchange Support Foundation	Archimedes Foundation
Easy to find	7 It is misleading that there are two gateway websites with the same goal		10	10
Landing page	6	6	8	6
Overall attractiveness	6	5	8	6
Trustworthy recommendations	7	0	10	7
Structure of information	6 Fragmented information. Two website cannot have synchronized information. Not organized well.		9	8
Availability of search	0 Is not built in search	10 Has advanced search with filters	10 Has advanced search with filters	5 No advanced search within the website.
Mobile version	4 Mobile heavy formats, slow loading time, difficult to browse			
Language	only English	only English	English, Russian, Lithuanian	English, Russian (partly), Finnish

Source: Renate Vidruska prepared table based on indicated webpages, evaluation scale 1 – 10, where 1- lowest evaluation, 10 – highest evaluation

Expert evaluations on importance in social networks are included in Figure 3.



Source: author's calculations based on expert survey conducted in December 2014 (n=12), evaluation scale 1 – 10, where 1 – not important; 10 – very important

Fig. 3. **Expert's evaluations of importance of respective social networks for information on higher education institutions in social networks**

Expert evaluations indicate that most attractive social networks for foreign students are LinkedIn, Facebook and Twitter. Next steps for deeper research will be foreign student's survey.

Conclusions, proposals, recommendations

1. Academic research has paid a lot of attention on effective use of social networks for higher education and study programs marketing in foreign markets.
2. Application of social networks for higher education and study programs marketing in foreign markets increases with every year.
3. The very general comparison shows that Estonian website about studies in the country is more attractive compared with two others (Lithuanian and Latvian) and social network Facebook page has more education related information and is more active. Although Latvian webpage has much information, it does not have good enough user experience and there are ways to improve it.
4. It is not appropriate to have two different webpages (as in Latvia case) that act as gateway pages for foreign students. This leads to lower credibility, information fragmentation and unsynchronized information on both websites. More detailed evaluation of existing web resources and their effectiveness should be created in promoting higher education in Latvia. It should include expertise as well as additional data about audience and page impressions.
5. Most attractive social networks for foreign students are LinkedIn, Facebook and Twitter.

Acknowledgement

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EVALUATION OF INSTITUTIONS IN INNOVATION-DRIVEN ECONOMIES

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Abstract. The aim of the paper is to quantitatively evaluate the quality of institutions in innovation-driven economies. First, the authors define institutions as socially approved behaviour models that restrict the rationality of an individual and constrain or encourage specific behaviour and classify institutions into two groups - governance institutions and value institutions. Secondly, the authors propose and implement an innovative and consistent yet simple and informative methodology for quantitative evaluation of institutions. The core of the methodology is the Institution Index Matrix that combines Institution Index and Institutional Potential Index in a single framework, where the level of quality of institutions is placed on X axis and the results of policies that facilitate growth-friendly institutions- on the Y axis. To measure the quality of institutions several World Bank's World Development and Worldwide Governance Indicators are used as well as the results from the World Value Survey. The analysis confirms that the leaders regarding the quality of institutions are the Nordic countries, Western European countries and New Zealand, Canada, the United States and Australia and the laggards - Southern, Central and Eastern European countries as well as Hong Kong, Chile and Israel. The low quality of institutions might impede the economic convergence. Finally, the authors provide a detailed analysis of the institutional environment in the countries with the worst institution indicators and propose solutions for the development of growth-friendly institutions in these countries. Research results can be applied to global development policies and regional development policies in geo-political regions.

Keywords: institutions, institutional arrangements, governance, economic development

JEL code: O17

Introduction

Ever since the origins of economic thought, the discussion about the prerequisites for economic development and its facilitating factors has been ongoing. In recent decades economic thought has returned to the importance of social and intangible factors for economic development, focusing on terms such as: institutions, habits, values, social infrastructure, social capital etc. The authors of this paper rely on the new institutional economics guidelines,

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which emphasize that institutions are the most important reason for differences in economic development.

Studies indicate the incongruity of existing institutions in developing and post-socialist countries with market economy conditions, demonstrating the need to conduct in-depth research about the role of institutions in socio-economic development processes by investigating institutions and their changes in developing and post-socialist countries. For the above reason, evaluations of institutions are particularly significant for the countries which are trying to adopt the experience of modernization of more developed countries, e.g. the Eastern Member States of the European Union, which are adopting not only legislation developed in the western EU member states but also, at a slower pace, norms of behaviour and values that are better suited for the functioning of a modern economic and political system.

In order to evaluate institutions, a number of different indicators are widely used - synthetic indexes which measure the rule of law, quality of legislation, efficiency of public administration as well as simpler indicators like the level of confidence in public authority and one's peers, the level of motivation etc. Nevertheless, a system which, by using a few important indicators, could make it possible to evaluate a region or country's institutions and their opportunities for improvement in a simple, easily perceivable and intuitive way does not exist.

Taking into account before mentioned deficiencies in the evaluation of institutions, the aim of this paper is to propose and implement an innovative and consistent yet simple and informative methodology to evaluate the institutional environment and options for its improvement in a state or a region. Such tasks have been set to implement the aim of the study: to outline the interaction among institutions, socioeconomic development and public policy; to formulate Institution Index Matrix, Institution Index and Institutional Potential Index; to calculate Institution Index and Institutional Potential Index for innovation-driven economies; to analyse the results of the calculations; to provide a detailed analysis of the institutional environment in the countries with the worst institution indicators; to offer conclusions and suggestion.

The method of the study is document analysis and descriptive statistics. World Bank's World Development and Worldwide Governance Indicators, EUROSTAT and OECD data as well as the results from the World Value Survey are used for the calculation of indexes.

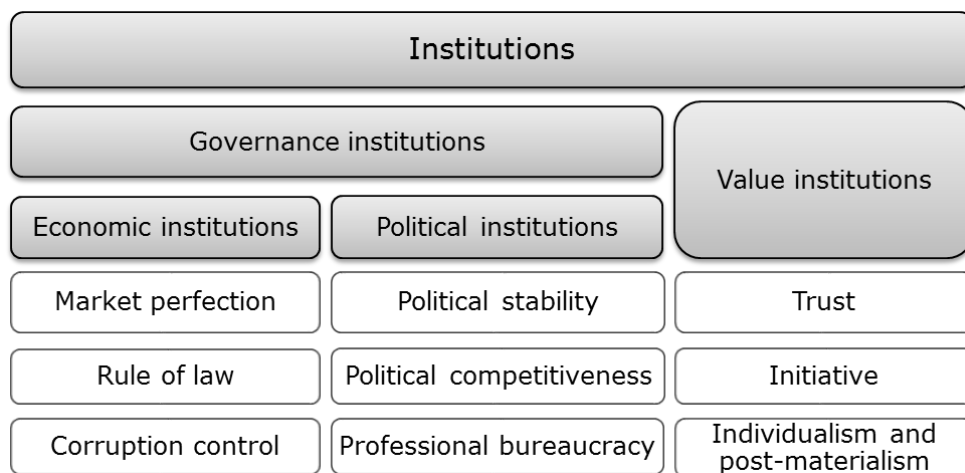
Research results and discussion

1. Theoretical background

In order to evaluate the quality of institutions, the authors define institutions as socially approved arrangements that restrict the rationality of an individual and constrain or encourage a specific behaviour. The authors also classify institutions into two groups - governance institutions and value institutions (Figure 1). Governance institutions include economic and political arrangements that facilitate or impede socioeconomic development. They should provide incentives for investment in human and physical capital and facilitate political action

that brings benefits to the majority of society, not only the political elite (Acemoglu et al., 2005, Acemoglu, Greif, 1998, Greif, 2000, Hall and Jones, 1999, Hodgson, 2004a and 2004b, North, 1990, North, 1994, Robinson, 2006, Rodrik et al., 2004).

Also the values impact the use of production resources. Higher trust promotes sharing knowledge and other resources decreasing production costs and encouraging innovation. Initiative raises economic and social activity leading to higher rates of employment, entrepreneurship and non-governmental activity. Individualism decreases the need to conform to common rules and norms facilitating innovation and rational behaviour, whereas post-materialism encourages civic activity and political participation promoting democracy and increasing the constraints on political elites (Anderson, Jack, 2002, Feldman and Zoller, 2012, Grootaert, Van Bastelar, 2002, Inglehart, Welzel, 2005, Malecki, 2012).



Source: author's construction

Fig. 1. **Conceptual framework of institutions**

In authors' previous research (Vitola, Senfelde, 2014) they have quantitatively evaluated the impact of institutions on the socioeconomic development and approved the hypothesis that high quality institutions encourage an efficient use of limited production resources in order to fulfil the needs of society. On a global level, most crucial institutions for socioeconomic development are such value institutions as trust and initiative as well as a governance institution voice and accountability; they increase objective and subjective well-being – the income level and the satisfaction with life. For the subjective well-being important role is played also by other value institutions (collectivism and post-materialism) as well as such governance institution as corruption control.

Furthermore, the authors found that the importance of specific institutions depends on the socioeconomic development level of the economy. In factor-driven economies important role is played by institutions that shape formal conditions of the economy such as private sector regulation and government effectiveness. In efficiency-driven economies an important role is played by such governance dimensions as corruption control and voice and accountability.

Corruption control increases the efficiency of markets as well as decreases costs for economic agents because corruption acts as an additional tax. Whereas voice and accountability increases the participation of economic agents and other parties in decision making, thus, shaping legislation that supports and encourages socioeconomic development. Finally, in innovation-driven economies a critical role is played by such informal institutions as trust, initiative and voice and accountability.

Moreover, the authorshave suggested that the development of growth-friendly institutions can be facilitated by public policies, namely, employment policy, education policy and social policy (Figure2).



Source: author's construction

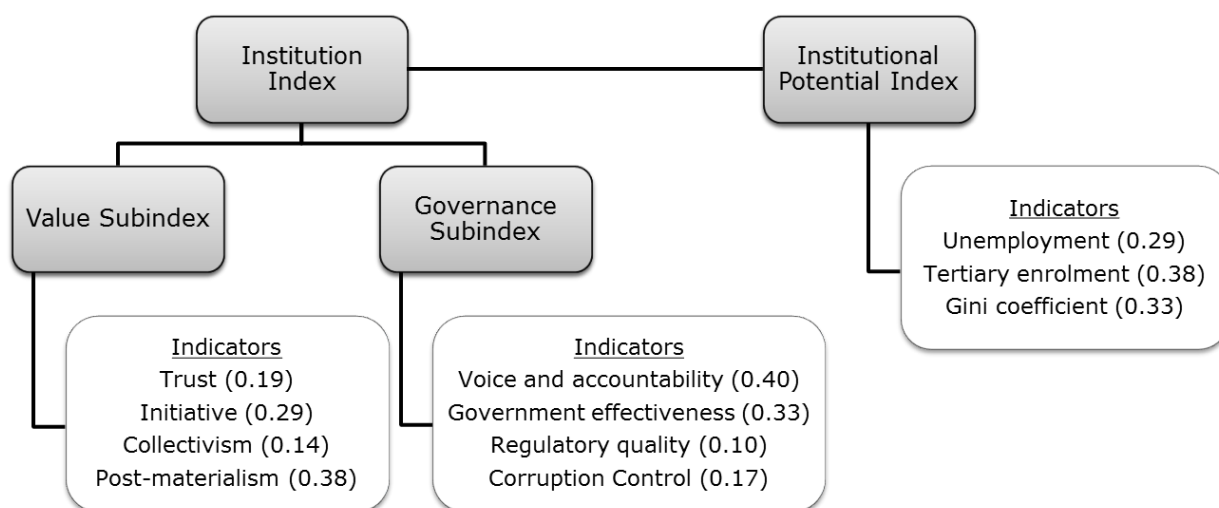
Fig. 2. The causal relationship between public policy, institutions and socioeconomic performance

Low unemployment level leads to an inclusive, active society in which every member of society has an opportunity to be economically active, to improve skills and knowledge, to socialize and to improve one's financial situation. In contrast, high unemployment leads to social segregation, social and economic isolation, loss of skills and knowledge, and even threats to public safety. Education level not only raises the level of human capital but also facilitates new contacts and social networks that lead to higher level of social capital as well as increases the level of tolerance and civic activity. Lastly, lower income inequality decreases social segregation, social tension and loss of human capital because of low access to services, such as education and health services.

Authors'previous research quantitatively approves that lower unemployment and higher tertiary school enrolment raises initiative and trust in the society as well as increases the level of governance. Also lower income inequality increases the level of trust. And trust and initiativeas well as high quality of governance, as already mentioned, are crucial for economic growth and satisfaction with life.

2. Formulation of Institution Index Matrix

The evaluation method employs Institution Index, which includes Governance and Values subindexes, and Institutional Potential Index. Institution Index measures the quality of governance and value institutions, whereas the Institutional Potential Index evaluates the ability of a state to improve its institutional environment by implementing public policies that are crucial for developing growth-friendly institutions in a state (Figure3).



Source: author's construction

Fig. 3. The indicators included in the Institution Index and Institutional Potential Index

Indexes are based on a 0 to 1 range where the best performing territory is assigned maximal value (1) and other territories reflect their ratio to the best performing territory. Weight (indicated in the brackets, see Figure 1) have been assigned to the indicators based on 17 Latvian expert opinion and using the method of pairwise comparison.

To measure the quality of governance the World Bank Worldwide Governance Indicators (regulatory quality, corruption control, voice and accountability and government effectiveness) are used and to measure values - results from the World Value Survey (the individualism index that illustrates the support to individualism versus collectivism as well as indicators developed by the authors using Likert scale and the answers to questions about general trust and responsibility of state versus individual that characterises the level of initiative). To measure public policies we used indicators from the World Bank Development Indicators and EUROSTAT databases – employment, proportion of students in tertiary education and Gini coefficient.

The Institution Matrix combines Institution Index and Institutional Potential Index in a single framework, where the level of quality of institutions (Institution Index) is placed on X axis and the results of policies that help to shape growth-friendly institutions (Institutional Potential Index) – on the Y axis. Four quadrants allocate countries to four groups:

- I Leaders – countries with high quality of institutions and high achievements in policies that facilitate the development of growth-friendly institutions;
- II Up-and-coming – countries with a lower than average institutional quality but high potential to improve their institutional quality because their public policies facilitate development of growth-friendly institutions;
- III Laggards – countries with a low quality of institutions and low potential to improve them because their public policies do not support the development of growth-friendly institutions;

- IV Loosing grounds - countries with high quality of institutions but lower than average potential to improve their institutional environment.

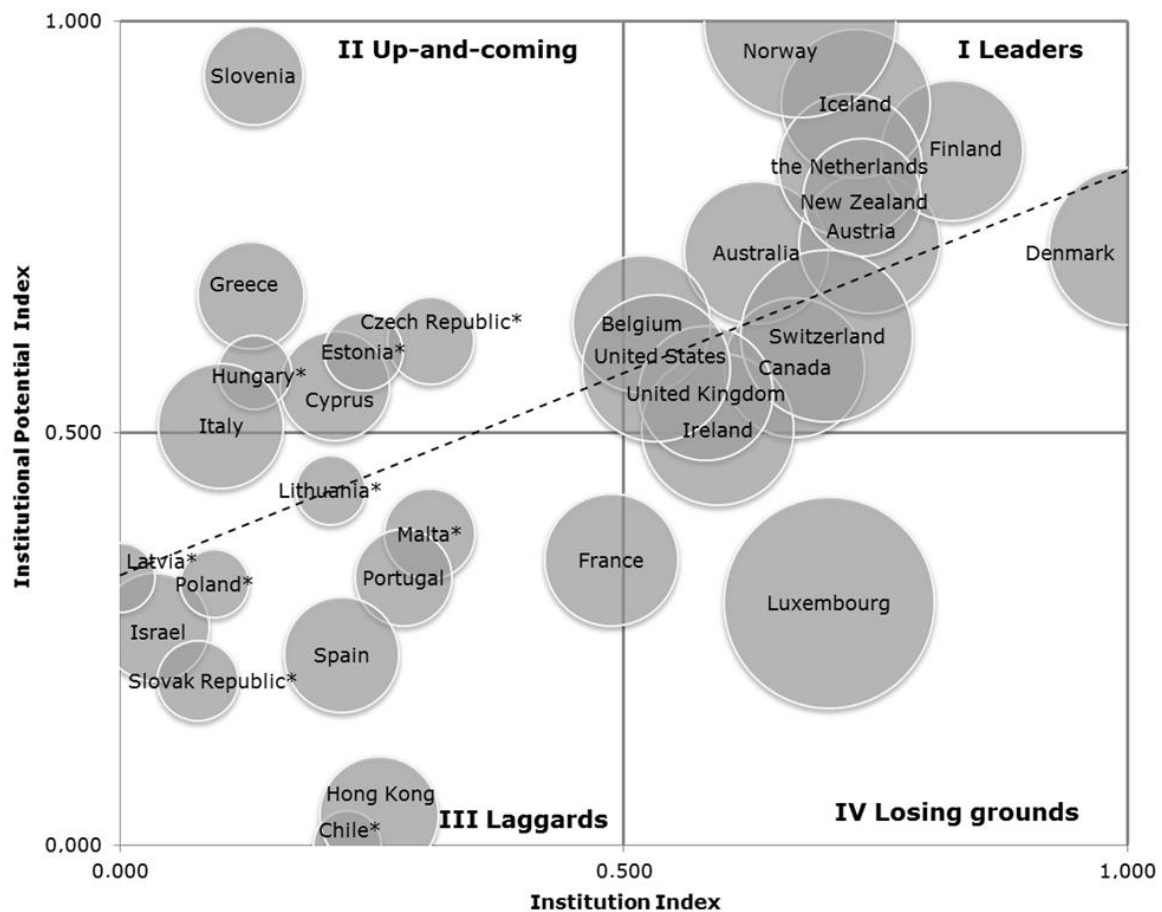
Analysis covers all 33 countries with innovation-driven economy and countries in the transition stage to this category; the classification of countries is based on the methodology used in the World Competitiveness Reports produced by the World Economic Forum. 10-year (2003-2012) average indicators from the World Development Indicators data base and World Governance Indicators data base are used as well as EUROSTAT (2004-2013) and OECD (2003-2012) data for Gini coefficient, and the average indicators from World Value Survey rounds in 1999-2002 and 2005-2008.

3. Analysis of institutions and their improvement potential

Firstly, the Institution Index Matrix is employed to locate 33 innovation-driven economies or economies in transition to this stage in the four quadrants (some countries from this group are not included in the analysis because of the lack of data in some of the datasets, e.g. Germany, Sweden and Japan). The Matrix shows that in general countries with a higher institutional quality have a higher potential to increase it and vice versa. High institutional quality also correlates with higher national income. However, there are also exceptions as Luxembourg and France that have a rather high institutional quality but rather low prospects to improve it, whereas Slovenia and Greece have a low institutional quality but high prospects to increase it (Figure 4).

The leaders among innovation-driven economies regarding the quality of institutions and their improvement potential (Quadrant I) are the Nordic countries, Western European countries as well as New Zealand, Canada, the United States and Australia. In these countries the quality of governance and value institutions is higher than average. All these countries are also high-income countries. Institutional Potential Index indicates that the institutional environment in such countries as Norway, Iceland, Finland, the Netherlands and New Zealand will raise rapidly, whereas in such countries as Ireland, the United Kingdom, Canada, the United States, Belgium and Switzerland the quality of institutions will increase moderately because. Therefore, the public policy in the latter should be redesigned in order to facilitate development of more growth-friendly institutions.

The Quadrant II shows "Up-and-coming" countries with higher than average institutional potential but lower than average quality of value institutions – these are Slovenia, Greece, the Czech Republic, Estonia, Hungary, Cyprus and Italy. Especially rapid improvement of the institutional environment is forecasted to Slovenia, in which the institutional potential is as high as in the Nordic countries Norway and Iceland.



Source: author's calculations based on World Bank 2014a, World Bank 2014b, World Values Survey Association, 2014

Fig.4. The quality of institutions in countries with innovation-driven economies and countries in transition stage to this category (*)

Size of the bubble illustrates GDP per capita

The Quadrant III shows the “Laggard” countries with lower than average quality of governance and value institutions – mostly the Southern (Spain, Portugal, Malta), the Central and Eastern European (Lithuania, Latvia, Poland, the Slovak Republic) countries as well as France, Israel, Hong Kong and Chile. The worst results characterize Latvia, Poland, Israel and the Slovak Republic as these countries have the lowest institutional quality and at the same time lower than average potential to improve their institutions. Hong Kong and Chile must take into account that unless they redesign their public policies they will lose their competitive advantages regarding institutional quality to other countries with a lower institutional quality but higher institutional potential.

The Quadrant IV includes “Losing grounds” countries with lower than average quality of governance institutions but higher than average quality of value institutions. Only Luxembourg is located in this quadrant.

Secondly, to find the bottlenecks, a more detailed analysis of the “Laggard” countries is provided by identifying factors that have a negative impact on their institutional quality and

potential. A factor is regarded to have a negative influence, if the index is lower than 1/3 of the maximal value in the selection of countries.

Table 1

Institutional and policy bottlenecks in the “Laggard” countries

Country	Institutions		Institutional Potential
	Governance dimension	Value dimension	
Chile		Trust Initiative	Income inequality
Hong Kong	Voice and accountability	Initiative	Income inequality
Israel	Voice and accountability Corruption control Regulatory quality	Trust Initiative	
France		Trust	
Spain		Trust Initiative	Unemployment
Portugal	Regulatory quality	Trust Collectivism	
Malta		Trust Collectivism	Tertiary school enrolment
Latvia	Voice and accountability Government effectiveness Corruption control Regulatory quality	Trust Initiative	Unemployment
Lithuania	Voice and accountability Government effectiveness Corruption control Regulatory quality	Trust	
Poland	Government effectiveness Corruption control Regulatory quality		Unemployment
Slovak Republic	Government effectiveness Corruption control Regulatory quality	Trust Initiative	Unemployment

Source: author's calculations based on World Bank 2014a, World Bank 2014b, World Values Survey Association, 2014

Table 1 illustrates the causal relationship between public policy, institutions and socioeconomic performance (Figure 2) on a country basis. Thus, deficiencies in such value institutions as trust and initiative in Chile and Hong Kong are caused by a high income inequality. But trust and initiative, as previously discussed and quantitatively approved by the authors, is crucial for reaching a higher level of income and satisfaction of life. Therefore a public policy that facilitates a lower income inequality would increase these countries socioeconomic development potential.

Also the Eastern European countries (Latvia, Lithuania, Poland and the Slovak Republic) show a low level of trust and initiative. Moreover, these countries have underdeveloped governance institutions, such as government efficiency, corruption control and regulatory quality and in the Baltic states – also voice and accountability. The government effectiveness, regulatory quality and especially voice and accountability significantly impact the income level prospects in a country. Voice and accountability as well as corruption control is also crucial for the satisfaction

of life. Lack of these institutions impedes the socioeconomic development of the Eastern European countries. These bottlenecks are caused by a rather high unemployment level, which, as proved by the authors in a global level analysis, decreases the level of initiative, trust and governance. Therefore public policies should aim at a lower unemployment in order to facilitate the development of growth-friendly institutions.

Also the Southern European countries (Spain, Portugal and Malta) as well as France have institutional drawbacks in terms of value institutions, especially trust and collectivism. Although analysis shows that collectivism is important only in terms of satisfaction of life, its importance should not be underestimated. Adjustment in public policies could mitigate these deficiencies. However, country specific circumstances should be taken into account when designing policies to facilitate a development of more growth-friendly institutions.

Conclusions and suggestions

The analysis shows that the leaders among innovation-driven economies regarding the quality of institutions and their improvement potential are the Nordic countries, Western European countries as well as New Zealand, Canada, the United States and Australia. Interestingly, the institutional potential in Slovenia is as high as in the Nordic countries thus forecasting a rapid growth of institutional quality in this country. "Laggard" countries are mostly the Southern, Central and Eastern European countries as well as France, Israel, Hong Kong and Chile. Especially Eastern European countries (Latvia, Lithuania, Poland and Slovak Republic) show a low level of such value institutions as trust and initiative as well as weak governance institutions. Results of the analysis confirm that institutional evaluations are important not only for relatively new democracies and developing countries but also for developed countries because some of them are still characterized by rather weak institutions.

Analysis also confirms that institutional quality correlates with institutional improvement potential as well as with the level of national income. Therefore countries with a low institutional quality might get stuck in a vicious cycle where low level of institutions hampers institutional improvements and consequently leaves the country underdeveloped. As public policy may play an important role in changing the institutional path-dependence in a country, development of institutions should be monitored and the role of public policies in institution building evaluated in order to overcome bottlenecks that delay emergence of growth-friendly institutions. Institution Index Matrix, Institution Index and Institutional Potential Index can be used as a helpful tool to evaluate a region or country's institutions and their improvement opportunities.

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CULTURE OF KNOWLEDGE SHARING IN TERMS OF COMPETITIVE INTELLIGENCE IN ORGANISATIONS

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Abstract. This paper presents the role of culture of knowledge sharing to implement competitive intelligence (CI). One of the competitive advantages in business is culture of knowledge management within organisation. Due to increasing role of information in business management, institutional managers' awareness increases regarding the need to have a good knowledge of competition in business environment and to arrange internal processes of organisation to be able to respond efficiently to the changes caused by the external environment. To enable knowledge sharing within the company, a special role is paid by the existing organisational culture, since certain organisational cultures promote more open information movement among members. Researchers increasingly emphasize the positive role of knowledge sharing and the advantages to be gained from it by private individuals and organisations. To make organisations successful, specific attention is required for provision of information interaction.

The object of the research is to evaluate knowledge sharing techniques and their importance to implement competitive intelligence in Latvian enterprises based on the analyses of scientific literature and the results of the survey data. The result of the research of management of competitive intelligence in Latvia pointed out the necessity to improve the communication system of enterprises. Trust was found the essential element allowing for interaction within relationships and social exchanges. Further, there were significant correlations between both organisational culture and CI. The significant findings of the study can be related to Latvian enterprises.

Key words: knowledge sharing, competitive intelligence, organisational culture

JEL code: M19

Introduction

In the economic context of the 21st century, rapid development of information takes place and knowledge becomes a precious resource for organisations. The fact that economies become more knowledge intensive makes it evident to most companies that knowledge is a precious resource (Howell K. E., Annansingh F., 2013).

One of the most significant aspects ensuring investigation of innovations incl. competition, is organisation's receptiveness of changes and enabling the flow of information, so that the

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required information were any time available to each employee. Changes in organisations are necessary due to the rate and scope of changes in external environment. Development of companies is more and more related with accumulation of knowledge, with implementation of innovations and changes determined by accelerated technological, social, economic, and political processes. Culture management as a stabilizing factor of social systems in the climate of ongoing changes, on its part, is a very complicated task.

Problem statement

Research undertaken earlier revealed that one of the competitive advantages in business is culture of knowledge management within organisation (Nevis E.C., et al., 1995; Davenport T.H. and Prusak L., 1998; Drucker P.F., 2000; Chow et al., 2000). Researchers discovered that efficient knowledge sharing in company is crucial to develop a basic expertise of employees and is important to gain a competitive advantage. The research revealed that the unwillingness of knowledge sharing might cause some damage to organisational survival (Lin C.P., 2007).

Mutual knowledge sharing is a key to business information management (Alavi M., Leidner D.E., 2001). Information exchange within organisation is recognised as a positive factor of organisational survival. Reasons stimulating or hindering knowledge sharing within organisation, however, are comparatively difficult to realize and complicated to manage. Identification of motivating facts, which determines employees mutual exchange of information, is a matter of high priority (Davenport T.H., Prusak L., 1999). When evaluating knowledge sharing as an organisational value, top managers should carefully assess the existing culture of social interaction in the company. Up to now, few empirical studies have been performed regarding the factors contributing to knowledge interaction within organisation.

Literature review

Knowledge can be considered from several aspects. For example, it can be seen as a state of mind, an object or a condition for access to information (Alavi M., Leidner D.E., 2001; Wasko M.M., Faraj S., 2005). Knowledge can be also considered as the individual's state of mind, which is adapted to organisation's requirements (Wasko M.M., Faraj S., 2000). Knowledge can be stored, acquired and manipulated with.

While early research highlighted organisation-level knowledge embedded in routines, recent research increasingly stresses the role of individual-level knowledge and the importance of knowledge sharing and transfer between team and organisation (Friesl M., Sackmann S.A., Kremser S., 2011).

In recent years, theorists and practitioners set out to answer the following questions: what determines knowledge sharing, what the initial conditions should be for knowledge sharing to be implemented (Kane A.A., et al., 2005), what the role of knowledge sharing in creation of innovations is (Tortoriello M., Krackhardt D., 2010) and how it affects changes in the

organisation (Mohrmann S.A., et al., 2003). Several studies have been performed witnessing that knowledge sharing within organisation is facilitated by confidence and openness (Sackmann S.A., Friesl M., 2007).

Confidence as an advantage of communication turnover was also highlighted by Latvian respondents in the survey for the role of organisational culture in the implementation process of technology (Cekuls A., 2014). In order to trust, people need to rely on assumptions that the other person will behave or react in a certain predictable way (Mayer R.C., et al., 1995).

Some researchers consider knowledge sharing, knowledge flow and knowledge transfer as a variable criterion and also define it this way. For example, Alavi M. and Leidner D.E. (2001) regard knowledge sharing as equal to knowledge transfer and define it as a process of spreading information across the organisation. Spreading can take place among individuals, groups or organisations, applying any type or amount of communication channels. Davenport T.H. and Prusak L. define knowledge sharing as a process comprising information exchange between an individual and a group.

Aspects influencing habits of information exchange

Several studies show that people get involved into information exchange expecting their demand for definitive information will also be met in future (e.g. Wasko M.M., Faraj S., 2005; Kankanhalli A., et al. 2005) Staff of the organisation is also motivated through exchange of experience with well informed persons within organisation (Brown J., Duguid P., 1998).

Summarising the studies, several factors have been observed, which are likely to affect an individual's performance in the information circulation process. It is observed that knowledge sharing in an organisation is facilitated both by information processing system (tools) and technologies (Alavi M., Leidner D.E., 2001; Haldin-Herrgard, 2000; Hlupic et al., 2002), and by such factors as organisational motivation and incentive system (Bock et al., 2005; Ardichvili et al., 2003), national culture (Chow et al., 2000) and organisational resources providing information, e.g. over time and space (Davenport T.H., Prusak L., 1998; Haldin-Herrgard, 2000).

Researchers increasingly emphasize the positive role of knowledge sharing and the advantages to be gained from it by private individuals and organisations (Jonsson A., Kalling T., 2007; Yi J., 2009). To make organisations successful, specific attention is required for provision of information interaction (Davenport T.H., Prusak L., 1998).

Knowledge sharing occurs when organisational members share organisationally relevant information, suggestions, ideas and expertise with one another. While it is recognized that certain advantages are also obtained due to knowledge sharing, people are unwilling of sharing. Various reasons hindering knowledge circulation are mentioned, among them organisational culture is consistently identified by scientists as one of the key reasons (Al-Alawi M., et al., 2007; Davenport T.H., Prusak L., 1998; McDermott R., O'Dell C., 2001).

Luu (2013) believes that knowledge exchange within organisation is affected by three key factors: emotional intelligence, corporate ethics and organisational culture. Emotional intelligence is a factor of the environment promoting socialisation of employees within the framework of organisational culture, which ensures successful interaction and integration of employees. Emotional intelligence has been reported to indicate the positive link with knowledge sharing (Endres et al., 2007; Rivera-Vazquez et al., 2009).

Several studies show that knowledge sharing within organisation is promoted by organisational culture and personal values (e.g. Janz B., Prasarnphanich P., 2003; Lee H., Choi B., 2003).

Organisational culture and knowledge exchange

Studies conducted to date agree that organisational culture is one of the key determinants among the countless factors contributing to or hindering knowledge exchange (Abzari M., Teimouri H., 2008; Al-Alawi et al, 2007; Chin-Loy C., Mujtaba B.G., 2007; McDermott R., O'Dell C., 2001; Stankosky M., 2005).

However, there is comparatively little research regarding impact of organisational culture to knowledge exchange (Sackmann S.A., and Friesl M., 2007).

Some managers acknowledge organisational culture to be the most relevant obstacle in creating and attracting knowledge assets (De Long D.W., Fahey L., 2000). Milne's P. (2007) position is that employees in general are motivated for accumulating and not for sharing knowledge in order to maintain their competitive advantages.

From the aspect of information turnover, organisational culture reflects the way of spreading knowledge or differences across the organisation as well as the values preventing the organisation from ageing. Organisational culture plays an important role in the company knowledge management (Zheng S., Zhong J., 2011). Corporate culture should encourage growth of staff's professional intellect as well as growth of the whole organisation in general.

To enable knowledge exchange within the company, a special role is paid by the existing organisational culture, since certain organisational cultures promote more open information movement among members (Hofstede G., Hofstede G.J., 2005). Correctly selected organisational culture will support the knowledge sharing experience among organisational members.

Trust in management has been found to magnify knowledge sharing through decreasing fear of losing one's value and increasing the member's motivation to document knowledge simultaneously (Renzl B., 2008).

Schein E.H. (2004) writes that culture can be abstract but its behavioural and relational consequences are definite. Expediency of culture can only be identified when it is observable.

Awareness and diagnosis of culture, particularly organisational culture, has historically been debatable. The close conjunction of the company's organisational activity with a particular organisational culture is the issue dealt with many scientists and practitioners (De

Long D.W., Fahey L., 2000; McDermott R., O'Dell C., 2001; Schein E.H., 2004). In many organisations, organisational behaviour is determined rather by organisational culture than by directives of top management and implementation of strategy, since they are in contradiction to organisational culture (Jarnagin C., Slocum J.W., 2007). Cameron K.S. and Quinn R.E. argue that taken-for-granted values, underlying assumptions, expectations and definitions already in existence contributed to the reason for ignoring organisational culture as an important factor.

Constant accumulation of experience and transformation of experience into knowledge required for progress of the whole organisation and for attainment of its goals is necessary for successful process of competitive intelligence (Cekuls A., 2014).

Knowledge exchange nature in Latvia

To assess the role of organisational culture for the technology implementation process in Latvia, Cameron and Quinn stress the importance of self-evident values or assumptions existing at the company. Among various theories and models, the structural framework by Cameron K.S. and Quinn R. or Organisational Culture Assessment Instrument is widely used for studies of organisational culture (Suppiah V., Sandhu M.S., 2011).

It is significant that results of studies showed a high closely positive correlation (0.866) between the stages of organisational culture and structure. The way of further arrangement of information turnover is highly dependent on the organisation's internal environment information turnover structure determined by the existing organisational culture.

When establishing procedures of the information turnover process, the goal of communication should be estimated – to involve, to find out the opinion, to gain responsiveness or to enlighten on the information required for the organisation. Data from research in Latvia show that companies spend 35% of time for data collection and only 12% – for exchange of the obtained knowledge. This shows that competitive intelligence process in Latvian companies is inherent of poor informative links and feedback, and indicative of shortcomings in the communication framework and interrelation of companies.

For example, in organisations with hierarchic culture, differing views can emerge within the structure regarding the way information turnover should be formed among people situated at various hierarchy levels; hence, common criteria and values should be established to be used in the management processes of competitive intelligence.

The study of competitive intelligence of business environment in Latvia shows that employees provide their superiors with information on competitive environment on a regular basis. An important number of respondents emphasised that the results of competitive intelligence are only distributed among the authorised persons of the organisation, and this could hamper informational interaction within organisation. For its part, the study about the role of organisational culture partly revealed that power in Latvia's companies are mainly concentrated with one or several leaders who make all major decisions. Unconditional

realisation of the leader's personal directions is required from all the rest organisational members, and their abidance and conformity to management are appreciated more than their professional competence. It indicates that information turnover in Latvian companies is mostly one-way. This evidence could also witness about the hierarchic system of information transfer or about shortcomings in the knowledge movement processes in general.

Introducing changes into organisational structure, values of organisational culture should be assessed. It is intercommunication problems that are considered to be communication defects of a certain culture.

Although respondents in Latvia admit that information from people obtained within the organisational framework serve for competitive intelligence, a comparatively low evaluation in the study has been given to the statement that the existing organisational culture encourages sharing of information. The study about the role of organisational culture in providing the competitive intelligence processes through emphasising intercommunication problems in Latvian companies, revealed the assumption that many problems of "communication failures" or "insufficient cooperation level" caused by shortcomings in the system of values of the company's organisational culture (Cekuls A., 2014). Almost half of respondents think that organisation should ensure an environment, in which mutual trust between individual and organisation exist that would promote formation of knowledge exchange behaviour. Upon recruitment, not only the candidates' professional competence but also their readiness to cooperate and take notice of others should be taken into account. Most of respondents agree that organisational culture ensure building up of knowledge sharing behaviour, causing confidence among colleagues.

Examining the role of organisation in building up knowledge sharing behaviour, the author believes: in order to promote knowledge sharing behaviour within organisation, transformation of organisational culture should be performed emphasizing implementation of values of supporting culture in the organisation. Organisational culture, which is uniform across the organisation with elements of supporting culture, fosters successful management of competitive intelligence.

Through engagement into the cultural transformation process of the whole system, the steering group is enabled to create precisely the culture required for providing efficient competitive intelligence management in the organisation. Besides, the study about the role of organisational culture shows that 85% of respondents think that organisational culture can facilitate successful process of competitive intelligence within the company.

If innovations comply with main norms and values of organisational culture, if the changes themselves become a cultural value of the company, then culture plays a positive role in development of the organisation. Culture builds confidence among colleagues within organisation – one of the keystones of competitive intelligence process in the organisation.

By ignoring culture in the competitive intelligence implementation process, it can hinder or completely stop efficient implementation of competitive intelligence process in the organisation.

Conclusions

1. Knowledge exchange behaviour is closely related to people within organisation: employees, managers and top level staff. Before starting cultural transformation, it is important for the senior management to be aware of the reasons why this transformation is necessary; employees of the company, for their part, should realize why the system transformation process was started within organisation.
2. In organisations with positive structure of social interaction, mutual information exchange between management and employees will be more frequent and have just a minor emphasis upon the hierarchic status within organisation.
3. The social interaction between management and employees plays an important role for knowledge exchange process within organisation.
4. The success of positive social interaction culture is information exchange with the employees who are more competent than their colleagues in some particular area of organisational knowledge, and who are ready to share their expertise.
5. In some organisations, knowledge spreads asymmetrically and may never reach certain members. Knowledge exchange is a way how to improve and ensure access to knowledge.
6. In order to create such organisational culture, which would foster successful process of competitive intelligence, the author would suggest promotion of the elements of supporting culture characterised by mutual trust between the organisation and its members. The list of organisation's key values includes cooperation, helpfulness and availability for team work.
7. Culture of each company determines how the knowledge sharing will function within the organisation and what will the company's common criteria be for achievement of goals.

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GENDER BALANCE IN CORPORATE BOARDS AND IN TOP MANAGEMENT IN LATVIA

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Abstract. In Latvia, the education level of women is higher than of men, while the rate of remuneration is higher for men than for women, and women are under-represented in management positions. The aim of the research is to analyse the theoretical aspects of the gender balance and diversity management in companies, to explore the situation of the gender proportion within the large companies of Latvia and to identify the factors that contribute to the growth of the women representation within the TOP management. The European Commission (EC) has set the target to reach the women representation up to 40% within the management of companies by 2020 and encourages the EU Member States on the application of the legislative quotas. Latvia is among those EU countries that has expressed official position against the introduction of quotas within the legislation, and thus, is seeking for other opportunities to stimulate gender balance within the companies. Latvia is a newcomer and lacks research in this field that emphasises the novelty of this paper. The paper investigates the gender situation in order to determine to what extent the 'glass ceiling' affects women's career growth in large companies of Latvia. Moreover, the paper analyses the benefits of the gender diversity to be used as incentive for the large companies of Latvia. The article has been prepared based on the analysis of primary and secondary sources, outcome synthesis and the evaluation of results of a survey of employees of large companies of Latvia (n=211) and survey of HR managers of large companies (n=50). Results present characteristic features of good female and male managers as perceived by the respondents. Managers of each gender have their strengths, which could together contribute to improved management performance.

Key words: gender equality, diversity management, women in business.

JEL code: J16, M12

Introduction and research objectives

Recently Regional Studies Association Network „Entrepreneurship, Gender and Structural Transformation” has started debate on how global transformation promotes and requires entrepreneurial ideas and perspectives to frame the changing economic and social

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environment. Business activities reflect the enduring gender segregation of the labour market and statistics show a higher participation in business amongst men than women. The papers presented in the special issue of RSA Quarterly suggest the need to examine in more depth the structural and regional conditions for the development and implementation of business ideas (Regions/RSA 2013) and the role of gender within decision-making bodies of companies.

In Latvia in 2012, about 1/3 (35%) of officials and 1/3 (36.6%) of company founders were women (SIF, 2014). The proportion of women on the executive boards of large companies in Latvia is relatively high: in January 2012 it was 26%. This figure ranks Latvia among those countries that are developed in the field of gender equality such as Finland (the proportion of women on the executive boards of large companies 27%), Sweden (25%), and France (22%). However, the proportion of women on the executive boards of large companies is still far from the target defined by the EU – 40% in 2020 (Reding, 2010).

Does it mean that available resources are used to their maximum potential in the situation when Latvia's population is facing demographic trends like ageing and low fertility?

The aim of the research is to analyse the theoretical aspects of the gender balance and diversity management in companies, to explore the situation of the gender proportion within the large companies of Latvia and to identify the factors that contribute to the growth of the women representation, in particular within the TOP management. **The hypothesis** is that a 'glass ceiling' on women's career growth in the TOP management of large companies of Latvia exists in the form of different structural, cultural and social constraints. **Tasks** of the research: 1) to analyse theoretical aspects of the diversity management and, in particular, the gender equality; 2) to explore the gender situation in the large companies of Latvia (with the number of employees above 250); 3) to determine the characteristics of good female and male managers that contribute to diverse management; 4) to identify factors that might contribute to the growth of the women representation in the management of large companies.

The research is based on the literature review and the survey results obtained by surveying employees and HR managers of large companies of Latvia during the "Study of the Situation of Men and Women in the Large Companies of Latvia" (SIF, 2014).

Methods of the research

Document analysis is used for studying the general situation and summarising the background information. The primary sources of data are laws, regulations and policy planning documents on the gender equality. Other studies, the EC reports and statistical data were used as secondary sources.

Two surveys were carried out: one survey of the Human Resource (HR) managers and the other survey of the employees of the large companies of Latvia. In total 157 companies registered in Latvia with more than 250 employees in 2012 were identified as appropriate for the survey. Companies were selected according to the criteria of large companies: 68

companies conform to the EC criteria: at least 250 employees, a turnover of more than EUR 50 million, and/or the asset value of more than EUR 43 million; the other 89 companies conform to the Eurostat criteria having more than 250 employees.

Within the survey of HR managers, the response amounted 38% (50 Latvian large companies). This survey was carried out from August 27, 2014 to October 10, 2014 using the Web survey and computer assisted telephone interviews. Apart from other qualitative information, this survey provided the statistical data on the gender proportion of employees within the large companies of Latvia. The survey of employees of large companies was performed in order to understand better the factors hindering or promoting the involvement of women in the management. Two hundred eleven respondents participated in a web survey, in which the respondents completed an on-line questionnaire. This survey was carried out simultaneously with the survey of HR managers of large companies. Questionnaires were anonymous and no information about the workplaces of particular employees was acquired. Data from the surveys was processed with SPSS for Windows software.

Research results

1. Gender aspect and diversity management in the business

A low number of women at the higher management level is seen as a problem that leads to the discussion on the gender equality within the companies. From the management theory aspects this is related to the concept of the diversity and smart management of diverse persons among the employees.

Researchers Eger and Indruchova described the evolution of the diversity management concept. As explained by the researchers the natural substance of diversity exists in the human society where diversity of people from the point of their age, gender, race, ethnicity, mental and physical abilities, sexual orientation and other characteristics is a natural thing that leads to the diversity management of the HR. Initially, the concept of the diversity management has been raised in the US, and then it was introduced to Europe in the 1990s. However, only recently it has been developed and applied in the EU's company practice at a significant level (Eger, Indruchova, 2014).

Wziatek-Stasko explains that the diversity management is about noticing differences between people in (and outside) enterprises and conscious development of strategies, policies and programmes, which create a climate for respecting and using the differences for the benefit of the organization (Wziatek-Stasko, 2013).

The review of the literature in the field of gender equality and the diversity management shows that most of the researchers in different countries analyse the proportion of women in the corporate management. In general, the proportion of women in the TOP management is rather low. In most studies, the statistics of the proportion of women in corporate management varies between countries and can be used to grasp the general context.

According to the study of "McKinsey & Company", the proportion of women in the management bodies which could be compared to the supervisory councils is from 2% in Japan (the lowest proportion) up to 34% in Norway (the highest proportion). By contrast, the proportion of women in the management bodies which could be compared to the executive board ranges from 1% in Japan (the lowest proportion) to 21% in Sweden, which is the highest proportion (McKinsey & Company, 2013; McKinsey & Company, 2013). Statistical data compiled in different studies can provide a general picture of the situation in the particular country but they are not comparable as the studies use different groups of companies, the size of companies and the interpretation of the senior management. However, the studies provide conclusions and open questions common to the situation of Latvia.

The statistics confirm that some countries, like Norway, have increased the proportion of women significantly, mainly by applying regulatory requirements in the form of quotas. Norway and Spain have pioneered a new wave of action across Europe with the introduction of legislative quotas for company boardrooms, followed by Finland, France and other countries that have introduced, or are considering the insertion of the gender-based recruitment requirements in their legislation (Villiers, 2010).

However, there are countries, like Great Britain, that are not in favour of the implementation of the legislative quotas and are seeking for the ways to reach the gender balance without strict regulatory requirements. Researchers are analysing the benefits for the business applying the diversity management and the gender balance, in particular.

As concluded by a researcher Wziatek-Stasko, more and more often research results are popularized which indicate that equality and diversity in the company, in particular in the category of sex of employees, correlate with the company's profitability (Wziatek-Stasko, 2013). Several researchers over the years have observed that the business performance indicators are improving with women in the management, however, they do not show statistically significant correlations (Adler, 2009; McKinsey & Company, 2007; Smith, Smith, Verner, 2005; Kotiranta, Kovalainen, Rouvinen, 2007; Carter, D'Souza, Simkins, Simpson, 2010). It is still an open question, which is the third set of factors that equally affects both the increase of the proportion of women in corporate management and improvement of business performance. Smiths and Verner conducted a research and found an inverse correlation that the proportion of women in management increased when the company's performance improved (Smith, Smith, Verner, 2005).

Apart from economic and financial benefits for the business, diversity management may also have other intangible and social benefits resulting in better performance of the management and companies in general:

- the quality of decision-making is improved through implementation of diversity management principles. Diverse composition of the board makes it possible to consider different points of view, come to a wider range of ideas and to adopt more innovative decisions (McKinsey & Company, 2007).

- diverse management is better able to understand a variety of customers and it knows the market better (McKinsey & Company, 2007; Darnell and Gadiesh, 2013);
- diversity management programmes improve employee motivation, customer satisfaction and the company's reputation (McKinsey & Company, 2007);
- an easier access to the talent base – a more open environment attracts more talented and more creative persons (Wziatek-Stasko, 2013). For example, according to the data of the Central Statistical Bureau (CSB) of Latvia, 69% women and 31% men acquired the higher education degree in Latvia in 2013.
- the board with a greater proportion of women ensures a much better management style based on listening to employees, social support and searching for benefits to both parties ("win-win") in conflict situations (Erkut, Konrad, Kramer, 2006);
- women are much more successful in maintaining productivity, improvement of work quality, meeting project deadlines, generation of new ideas and advancement of projects (Villiers, 2010);
- Investors are also slowly beginning to pay attention to internal corporate policies, including diversity management. Certain investment funds, such as the "Amazon" (EU) and "Calpers" (USA) have included diversity as one of the investment criteria (McKinsey & Company, 2007);
- For women in business, it is more important to ensure the long-term development, for men – a fast short-term profit. Accordingly, the benefit of gender balance is the diversity of the team (Erkut, Konrad and Kramer, 2006).

2. Gender aspect in the large companies of Latvia

The proportion of women and men in large companies

The research results show that the companies in general employ more women (59%) than men (41%). At the same time there is a tendency – the higher is the level of management, the lower is the number of women. A clear gender disproportion can be observed at senior management level of the large companies of Latvia. Men are significantly more represented both on executive boards and supervisory councils of these companies, while gender proportion on middle level management is quite similar - among the heads of departments, 46% are women and 54% are men. The survey data highlight that there could be a 'glass ceiling' or structural/cultural/social constraints on women's career growth in Latvian business environment, in particular, for their representation on executive boards. The fact that no gender disproportion is observed on the middle level management leads to the above conclusion.

Characteristics of good managers

To promote gender equality in senior management of companies it is essential to understand the overall behaviour towards the capabilities and competencies of women and men as

managers. The survey of employees of large Latvian companies reveals the prevailing perceptions about the skills of particular gender.

The question on what capabilities characterise good managers was asked to identify the characteristics of a manager that employees appreciate and see in female managers the most. Respondents determined the sense of responsibility as the main characteristic of a good female manager. Moreover, the effective planning and work scheduling skills are the second most recognized characteristics of a good female manager, which are followed by the ability to hear out a variety of opinions. Good female managers are least characterised by the authoritarianism, the ability of searching for innovation and making decisions rationally.

In assessing the ability of women to make decisions rationally, female and male respondents expressed a clearly different opinion. Female respondents have often noted rational decision-making as a characteristic of a good female manager, while the male respondents have named it much less often.

In total, male respondents have rated the capacities of female managers lower in all aspect but 23% of the respondents believe that women are not good managers. Gender factor can be observed in the assessment of abilities of female managers, as the understanding of female success is based on diligence and sense of duty. Also, men's opinion about female managers includes the traditional assumptions about women's abilities – irrationality and the lack of initiative.

Respondents put rational decision-making skills, ability to take initiative and authoritarian management style as the most important characteristics of a good male manager. Aspects that characterize a good male manager the least are sensitivity towards the feelings of subordinates and transfer of information on time. While a tendency to take risks is a characteristic that rather describes a male manager, as the characteristic 'takes less risk' is selected only by 8% of respondents. The characteristics named are concentrated around the traditional masculinity characteristics that determine the risk and authority as the criteria of masculinity (Kimmel, 1994).

When evaluating the characteristics of a good male manager, the gender differences of respondents are the most prominently in the assessment of the sense of responsibility. Male respondents assess the male sense of responsibility more positively than female respondents. Male respondents see male managers as open to risk/taking risks more than female respondents. But both men and women equally assess the rationality of male managers. So a male manager in the eyes of subordinates of both genders is considered a rational decision maker.

Such differences can be explained by the different management styles of different genders as well as the fact that the society sees the gender stereotypes in the management style of male and female managers. Rationality and authority are emphasized when talking about men, while in case of women – sense of responsibility and the ability to listen and collaborate.

The research shows that both gender possess specific and different set of skills or abilities that all are essential to form the good and well performing management team. This confirms the importance of diversified managers within the business to ensure better performance.

Factors hindering and promoting women carrier in TOP management

Looking at the best practices implemented in the companies by their forms of management, it is evident that the subsidiaries of international companies are the "pioneers" in this field. This practice leads to the assumption that gender equality and diversity management issues are not yet a standard practice of personnel policies of local companies, and these ideas and practices are sooner integrated in the international parent companies of which the strategies and personnel policies highlight gender equality as the company's public value. The survey confirmed that employees believed that the participation of women in corporate management should be promoted through a variety of support tools. This opinion was expressed by more women (66% of women completely agreed or mostly agreed with this statement) than men (39% of men completely agreed or mostly agreed with this statement).

Results of the research "Attitudes towards Gender Equality in Society" in 2014 (Latvijas Fakti, 2014) indicate that, in the society's opinion, the main reason for lower representation of women in management positions is a traditional one – women are more often taking care of the housework, children, family. It is essential to find out what support measures for work-life balance are offered by companies. The survey also confirms that one of the major factors hindering women's professional development, is the family, more specifically, the conservative view of family and women's responsibilities in it prevailing in the Latvian society. Family does not have a similar importance in the life of women and men as well as in public expectations regarding the role of father and mother. The research reaffirms that the representatives of both genders do not have equal career opportunities, because in the case of men the aforementioned obstacles do not exist.

When answering the question on possible solutions for increasing the number of women in management positions and on the executive board, the employees name support measures for families with small children and work-life balance as the priority. Both employees and managers see mentoring and coaching activities and implementation of innovative forms of work organisation as possible solutions for increasing the number of women in management positions. Including the gender equality issues into the company's internal documents and procedures (23% of respondents) as well as training of managers, HR professionals on diversity management (28% of respondents) is also important for the employees. The reasons for such a choice should be studied separately; however, it could indicate a need to strengthen the capacity of managers and HR specialists of managing diversity.

Conclusions

1. The research confirmed the hypothesis - the glass ceiling exists within large Latvian companies hindering the career growth of women in TOP management.
2. It can be concluded that an ideal manager would need features characterising a good male manager and good female manager. A male manager is considered to be good thanks to authoritative management style, ability to take initiative and make decisions rationally. These characteristics have been assessed as minor in evaluation of a good female manager. While it is considered that the essential characteristics of a good female manager are such abilities as sense of responsibility, effective planning and respecting deadlines, the ability to hear out opinions, which are not highly valued, when talking about a good male manager.
3. Mixed management teams could be more effective and create the perfect model of corporate management. By using the strengths of each gender and creating an equivalent team, it would be possible to contribute to employee satisfaction with the company's management.
4. Therefore, a greater involvement of women in corporate management and use of their potential is an important issue that is worth looking at in the context of unused resources. The participation of women in corporate management should be promoted through a variety of support tools ensuring better work – private life balance, allowing more flexible forms of a work and ensuring coaching and mentoring for potential female managers.

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THE IMPACT OF INTERNET PENETRATION ON POLITICAL PARTICIPATION ACTIVITY IN LITHUANIA

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Abstract. Active political participation in the process of democratic governance provides citizens with an opportunity to influence elections and control the work of politicians. However, results of the surveys during last few years display that the activity of citizens' political participation in elections is declining significantly. As a result, new ways to encourage activity of citizens are looked for while taking into account the rapidly changing environment. One of such possibilities is rapid development of information and communication methods which allow citizens' participation via internet and proper information gain in networks. The aim of the article is to identify the impact of internet penetration on political participation activity in Lithuania. The authors analysed tendencies of internet penetration and activity of citizens' participation in election. Furthermore, causal relations between political participation in elections which happened from 2007 to 2014 and factors of internet penetration (households with internet access and individuals, who used internet daily or at least once per week) were analyzed in this article. According to this study the authors found a relation between activity of voters in the before mentioned elections and factors of internet penetration. There were not identified statistically significant differences between counties where the most part of the population are from rural areas and those, where prevailed urban population. The regular usage of internet has impact on voters' activity in the rarest settled counties. It was identified that individuals who use the internet more frequently find information about elections in websites. The hypothesis was raised that this information encourages them to participate in elections more actively.

Key words: political participation, internet penetration, activeness of voters, election.

JEL code: O330, R200.

Introduction

Political participation is considered as one of the main topics while talking about contemporary representative democracies (Teorell J., Torcal M. and Montero J. R., 2007). Different measures are applied for political participation in modern democratic countries. One of them is information and communication technologies (ICT). It is related with e-participation,

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e-voting possibilities development. While applying ICTs citizens can better inform representatives of authority on their interests and needs, put pressure trying to get response to their opinion, find information about political parties, offer their opinion during elections, etc. Social network sites, blogs, specific websites have allowed individuals to participate in activities aimed at influencing government and policy. It is stated that finding information in internet is relatively low cost compared to finding information through other measures (such as the television, in person etc.).

The surveys of citizens' participation are noticeably developed in Western democracies during last few years. Plenty of articles can be found where phenomenon of citizens participation is examined, its typologies are presented, and which analyses the shift of citizens' participation forms. J. Gaventa and C. Valderrama (1999), H. J. Abs and R. Veldhuis (2006), R. Dalton (2009), D. Held (2002) and others can be mentioned among the authors who have analyzed citizens' participation in Western countries. In Lithuania, this issue was analyzed by A. Krupavicius (2004), M. Damkuvienė and R. Tjunaitienė (2010), P. Ragauskas (2004), R. Riekasius (2011) and others. The issues of e-democracy, e-participation, e-voting are analyzed widely in scientific literature and they are directly related with the rapid ICT development (Blumler J. G. and Coleman S., 2001; Chappelet J. L. and Kilchenman P., 2005). But there is a lack of deeper surveys about influence of internet on political participation activity. Considering this the authors of article formulate the aim - to identify the impact of internet penetration on political participation activity in Lithuania. The concept of political participation is analyzed, the internet penetration and the activity of voters in Lithuania's is surveyed considering the rural and urban population, and the relations between voters' activity and internet penetration are identified in this article. The attention is given to impact of internet on voters' activity. The methods applied are: analysis of scientific literature, comparative analysis, logical analysis, correlation and linear regression analysis.

The concept of political participation

The institutionalized methods of citizens' political participation in decision-making process distinguish democracy from other political systems (Dalton R., 2009). D. Held (2002) points out principles of democratic system which prevalence would determine political life as one of the most important part of citizens living: effective participation, conscious understanding, and equality of voting in critical moment, control of agenda, engagement. Institutions of authorities should assure possibilities of citizens' participation in order to practically implement these principles of democracy.

Scientists H. J. Abs and R. Veldhuis (2006) presented classification of participation conceptions the basis of which is active citizenship. With reference to four dimensions of citizenship (political, economic, social and civic) they point out four conceptions of participation: political participation, social participation, cultural participation and economic participation.

The Internet has had a huge impact on both the way in which people connect with each other and the way that they gather and share information (Dalton R., 2009). It allows communication with little regard for geographical boundaries (so long as those places have Internet access), and significantly reduces the obstacles to communication presented by time and language restraints (Whiteley P., 2013).

Political participation is identified with a common participation in elections. On the basis of democracy principles citizens have to control those who are making decisions; the main way of this control – society's possibility to elect political elite during competitive elections periodically (Blumler J. G. and Coleman S., 2001). Pre-election period is also very important because during it a lot of discussions, debates are organized, candidates and parties present their election programs etc. This time is assigned for the information retrieval, collection, analysis, and assessment.

Just like other countries, Lithuania is confronted with a big challenge – ICT development and its impact on democracy and participation (Riekasius R., 2004). As such, the terms of "e-democracy", "e-voting" etc., provide new forms of participation, new possibilities of information spread, new possibilities for communication with political elite and representatives of public administration institutions.

Materials and methods

This study is based on secondary statistical data and summary and interpretation of the results of scientific research about internet impact on voters' activity. Regional statistics about ICT from Statistics Lithuania and data about voters' activity from the Central Electoral Commission of the Republic of Lithuania (CEC) are the main sources of this study. From 2005 to 2014 regional statistics about household with internet and persons, who used internet daily or at least once per week were used in order to analyze internet penetration in Lithuanian counties (Official Statistics, 2014). Analysis of citizens' activity in elections is based on the CEC data about voters' activity in the Local Government Councils' election in 2007 and 2011, the Parliament (Seimas) election in 2008 and 2012 and the President election in 2009 and 2014 (Lietuvos Respublikos Vyriausioji rinkimu komisija, 2014). Data of scientific articles from databases of Essential Science Indicators and Virtual Library of Lithuania were used in this article.

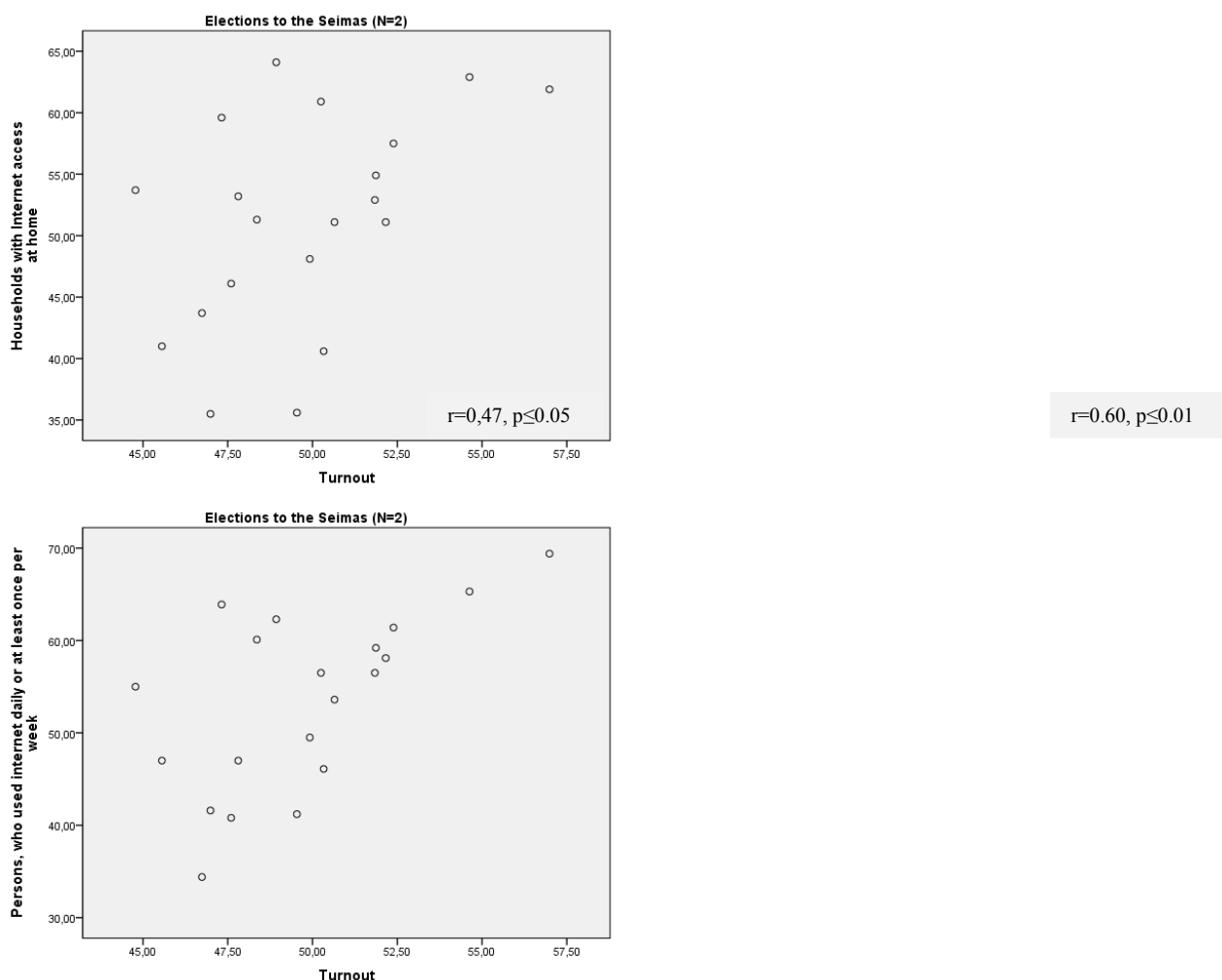
The authors used comparative analysis method to analyse data and scientific articles. Quantitative and holistic approach was applied in order to find essential quantitative relations. Statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS 13) and Excel 2003. Relations between internet penetration and voters' activity were investigated using Pearson correlation coefficient and linear regression analysis. Two indexes which show internet penetration were used in this analysis: a) household with internet access (HIA) and b) persons, who used internet daily or at least once per week (PUI). Causative relations between these indexes and voters' activity were analyzed in six elections. Moreover,

the analysis was performed according to the type of election and county. A p value of ≤ 0.05 was considered statistically significant.

Results

Correlation analysis showed (Figures 1 and 2) that voters' activity was significantly related with both indexes of internet penetration – HIA and PUI ($p \leq 0.05$) in all elections during 2007–2014 ($N=6$) and the Parliament election separately ($N=2$). This correlation was especially significant in three cases ($p \leq 0.01$). All these correlations were positive.

Relation between voters' activity and PUI is significantly more stronger than relation between voters' activity and HIA in the Parliament election. Individuals who use the internet more frequently find information about elections in websites. The authors can hypothesize that this information encourages them to participate in elections more actively.

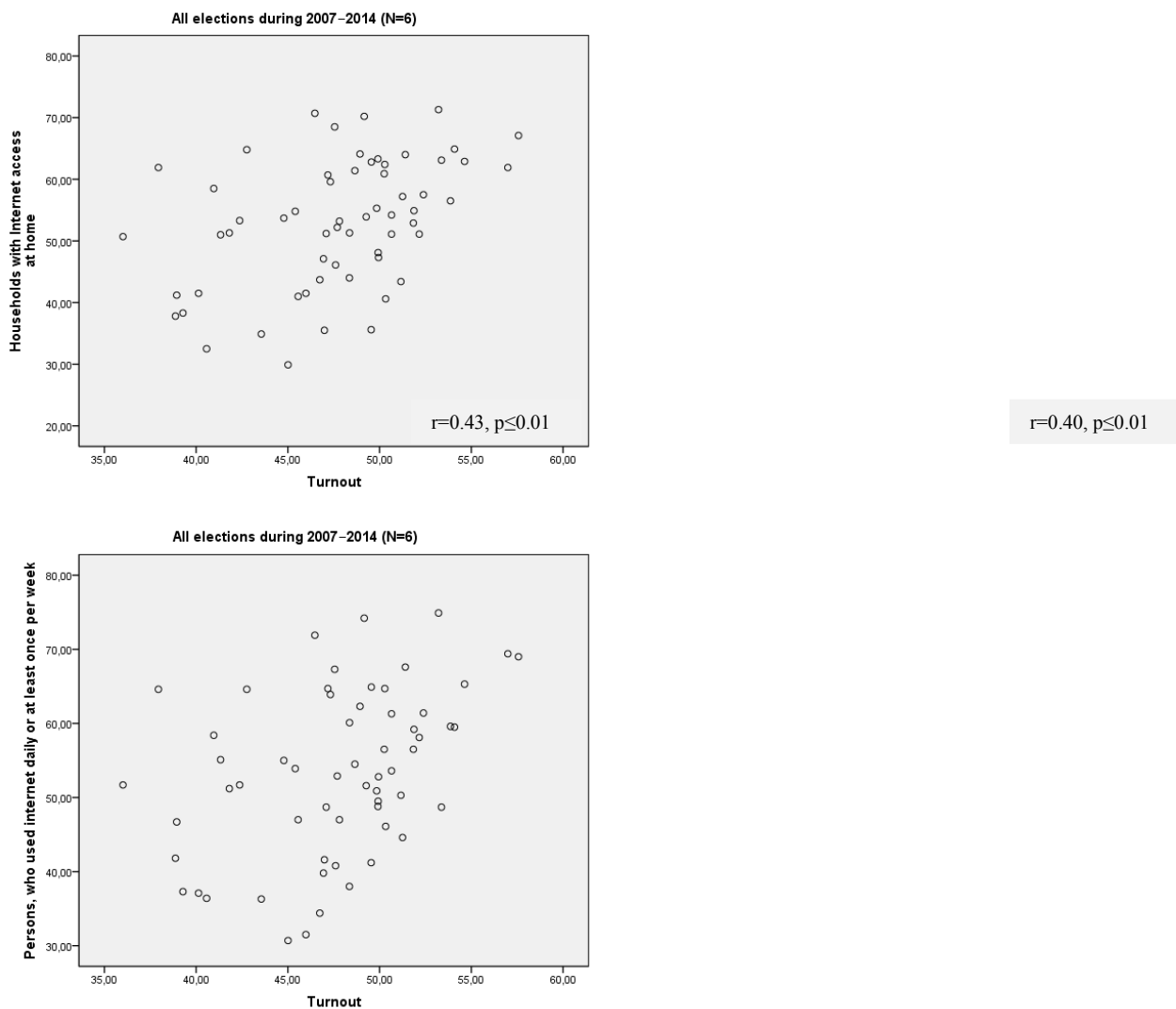


Source: authors' calculations based on the Statistics Lithuania data

Fig. 1. Analysis of correlation between voters' activity and indexes of internet penetration in the Parliament elections of 2008 and 2012 (Pearson coefficient)

This study shows weak positive correlation between voters' activity and PUI and HAI in elections which happened between year 2007 and 2014 (Figure 2). These findings suggest that

higher number of persons who use internet and household with internet access increased voters' activity in the above mentioned elections and Parliament election separately. However, according to this study, voters' activity in the President election and Local Government Councils election is not related to indexes of internet penetration.



Source: authors' calculations based on the Statistics Lithuania data

Fig. 2. Analysis of correlation between voters' activity and indexes of internet penetration in elections between year 2007 and 2014 (Pearson coefficient)

After analysis of correlations between voters' activity and indexes of internet penetration according to different counties, the authors found only two statistically significant correlations (Table 1). Voters' activity is related to PUI only in Alytaus and Utenos counties. This correlation is significant and strong. However, correlations between voters' activity and indexes of internet penetration in other counties were not statistically significant.

Table 1

Analysis of correlation between voters' activity and indexes of internet penetration in elections between year 2007 and 2014 (Pearson coefficient)

No.	Counties	HIA	PUI
1.	Vilnius	0.44	0.64
2.	Klaipeda	0.39	0.39
3.	Kaunas	0.53	0.54
4.	Panevezys	0.52	0.40
5.	Telsiai	0.64	0.51
6.	Siauliai	0.72	0.60
7.	Utena	0.46	0.87*
8.	Alytus	0.69	0.84*
9.	Marijampole	0.69	0.44
10.	Taurage	0.71	0.79

* Correlation is significant at the 0.05 level.

** Correlation is significant at the 0.01 level.

Source: authors' calculations based on the Statistics Lithuania data

Linear regression analysis was performed to find if internet penetration had impact on voters' activity. Voters' activity was chosen as dependent variable. HIA and PUI were independent variables. According to the linear regression analysis, HIA and PUI did not affect voters' activity in any of election. However, higher UI had significant impact on voters' activity in Alytaus county ($\beta=0.93$, $p\leq 0.05$). Significant relations were not found in other counties.

Discussion

This study analyzed relation between voters' activity and indexes of internet penetration (HIA and PUI) and proved the impact of internet on voters' activity, which is the main finding. Results showed that HIA and PUI had significant affect on voters' activity in Lithuanian elections between year 2007 and 2014, especially in the Parliament election. Research argues about impact of internet on political participation: some of them state that internet use decreases political responsibility while others maintain the idea that internet increases political participation (Lusoli W., 2005; Schmitt H., 2004; Sylvester E. D. and McGlynn A. J., 2010; Stanley J. W. and Weare Ch., 2004).

Authors' study agrees with H. Schmitt's and W. Lusoli's studies results, which show that internet has mobilizing affect on voters' activity. Both scientists analyzed impact of internet in the European Parliament elections. H. Schmitt investigated the role of internet use in receiving the pre-electoral information of the 1999 European Parliament election and concluded that internet users take part in elections more actively than individuals who are not using it despite the causal structure. Moreover, the study revealed that the internet was almost as popular as public meetings which were one of the most typical forms of electoral campaigning of European political parties previously (Schmitt H., 2004). Analysis about internet has mobilizing affect on voters' activity. Both scientists analyzed impact of internet in the European Union citizens' internet use in finding the information about internet has mobilizing affect on voters'

activity. Both scientists analyzed impact of internet in the 2004 European Parliament election showed that internet goes hand-in-hand with citizen-centred campaigns, where the individual takes a more active role in information gathering, in taking part to political discussion and in attending public electoral events (Lusoli W., 2005). Authors' findings are in agreement with D. E. Sylvester's and A. J. McGlynn's study, where they show that people who used internet more often in their homes were more likely to contact the government whether by phone, e-mail, or letter. For example, the probability of political participation through letter writing or phone calls is increased by 15–17% for someone who uses internet at home multiple times per week as compared to someone who does not use internet at home. Moreover, the probability of sending an e-mail to government rises by 35% for the same change in the frequency of internet use at home. These results demonstrate that individuals who do not use internet at home whether because of inadequate knowledge or lack of access are less likely to be politically active and this has significant and negative consequences for political participation (Sylvester E. D. and McGlynn A. J., 2010).

However, J. W. Stanley and Ch. Weare present the opposite results. According to their studies, internet has a lacking impact on democratic participation. Findings that internet access does not mobilize individuals politically, suggests that many of the web-discussion participants were already politically active and were attracted by the opportunity to exercise their political voice in another areas. So the affect of internet access on mobilizing non-active individuals is hardly probable (Stanley J. W. and Weare Ch., 2004). Though the authors found the significant relation between voters' activity and HIA and PUI, this relation is weak. Indexes of internet access and usage increased rapidly in Lithuania, whereas voters' activity significantly decreased. Rapid internet penetration had very small impact on voters' activity.

Results of this study show that PUI has very strong impact on voters' activity only in Alytaus and Utenos counties. It is interesting that PUI indexes are the lowest in these counties. Moreover, these counties do not distinguish from others according to voters' activity. On the contrary, relation between PUI and voters' activity was not found in counties, which are leaders according to the PUI indexes. This confirms the results of studies which present controversial data about impact of internet use on voters' activity. There is the need to perform the more comprehensive studies in order to find these differences between counties.

Statistically significant differences were not found between counties with higher number of rural population (Taurage and Marijampole) and counties with urban population. Though major part of the population of Utena and Alytus consists of urban inhabitants these territories are rarely settled. Population density is internet has mobilizing affect on voters' activity. Both scientists analyzed impact of internet in the lowest in Utenos county (19.8 people per km²) and population density in Alytaus county is in the third place (27.6 people per km²) of all counties. Correlation between voters' activity and UI is observed in these counties. Moreover, UI has impact on voters' activity in Alytaus county. The authors can hypothesize that active

internet users from these counties get information about elections in websites easier and with less expense. Thereby this has impact on their participation in elections.

No electronic vote is available in Lithuania at this time. Despite this fact, internet is efficient device which helps individuals easily and voluntarily participate in Lithuanian elections. Moreover, it helps in choosing different ways of political participation with small financial and time input. Previously, enthusiastic internet users were only young people who did not have the right to vote. On the contrary, nowadays more older people become involved in the activity related with elections on the internet.

Firstly, the only one role of internet in elections was to provide access to the various information sources, especially to the websites of political parties. Nowadays a person who has open internet access at home or at work can create a diary, write a comment about elections in social networks or micro-websites, show his/her support by videos, pictures, photos or uploaded status, join the election campaign by creating views or sharing them. Different persons can be involved in commonly created advertisement campaign on the internet.

Broadband internet connection access should be expanded in the areas which do not have this connection. This could support the use of internet abilities to increase voters' activity. It is also important to explain advantages of internet for people, to show how internet can help solve their problems, contact with national institutions, political parties and non-governmental organisations and get the information from them. This could defeat their hostility. Moreover, people should get financial support and training service. The essential thing is to provide necessary knowledge and skills for the old people, rural inhabitants, those who get lower incomes and disabled people who do not use computer and internet (Lietuvos Respublikos Vyriausybės..., 2011). However, the very important factor, which has the impact on application of internet and other modern technologies in mobilizations of voters, is national institutions, political parties and non-governmental organisations intention and ability to adapt to the forms of communication, collaboration, information and mobilization and to apply them in the conditions of electronic democracy. Firstly, these organisations should actively use internet and its opportunities to contact and communicate with electors and to mobilize them for the political activity. Electronic vote should be introduced in Lithuania.

Statistical analysis of data let to find only the main general tendencies of relations between internet usage and voters' activity and this conditioned the restriction of this study. The main restriction is related to the lack of data, especially about internet penetration according counties. Statistics Lithuania began to publish data about household with internet access and persons, who used internet daily or at least once per week according to the counties from 2005. Because of this reason the article analyzes voters' activity only from 2007. This study is important primary contribution to solution of this problem. However, further research which should analyse activity level, participation forms and content of different groups of voters (according to the living place, gender, age, etc.), would increase probability to evaluate impact of internet on voters' activity more accurately.

Conclusions

1. Political participation refers to activity by ordinary citizens that has an intent or power to influence political decision making. Rapidly increasing internet penetration has a significant impact on broadening political participation by lowering the cost of involvement, creating new mechanisms for organizing groups and opening up new channels of information.
2. The authors found a relation between voters' activity in the elections between year 2007 and 2014 and households with internet access and people who used internet daily. The relation is observed only in the Parliament elections. There were no statistically significant differences found between counties where the most part of the population are from rural areas and those, where prevailed urban population. But the regular usage of internet has impact on voters' activity in the rarest settled counties.
3. The authorities in Lithuania cooperating with telecommunication companies have to develop further internet access and to provide flexible training services for the persons who are digitally excluded. The forms of electronic democracy should be actively applied by authorities, political parties and non-governmental organizations. These efforts will create wider possibilities for political participation, and voters will have access to plenty of information on internet.

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RESPONSIBLE CHANGE OF VEHICLE DRIVER'S DRIVING BEHAVIOURS

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Abstract. The mobility of society is an essential condition for the development of the regions. Transportation provides access to the labour market, satisfying people's daily needs, encouraging consumption and making a positive impact on the economic development of the regions. An efficient, economical and safe transport infrastructure is an essential precondition for sustainable mobility. Society can be considered as being part of the transport infrastructure, because society's everyday routine directly affects the use of infrastructure and related processes. Driver's behaviour in road traffic is an essential factor for a safe transport infrastructure. Road traffic accident statistics in each country is a significant indicator of transport infrastructure quality and its efficient usage.

The problem of the study is the negative influence of drivers driving behaviours to road safety and the necessity to propose the discussion of solutions to change these behaviours. For a solution to the defined problem, the authors put the article's objective: with the aim of determining the essential benefits from a change in driving habits, to identify preventive actions applied in practice, to improve road safety and to reduce the number of road traffic accidents.

National economic indicators affect society's behaviour and there is a direct observable correlation to road traffic accident's statistics. Serious accidents are associated with driving a car or being in a car that was involved in a road traffic accident. The issue of traffic safety needs to be addressed at a national level, however, entrepreneurs must engage in solving this problem, whereas road accidents directly affect the profitability of companies.

Key words: responsibility, society, sustainable transport, training, business.

JEL code: L62, L91, M14, M21

Introduction

Eco-driving means smarter and more fuel-efficient driving. Eco-driving represents a new driving culture that makes best use of advanced vehicle technologies, while improving road

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safety. An important component of sustainable mobility, eco-driving considerably contributes to climate protection and pollution reduction (ECOWILL, 2011).

The objective of eco-driving is to reduce average speed levels and minimise acceleration and deceleration, thereby, reducing fuel consumption, polluting emissions, noise and costs — not only of fuel but also in terms of reduced maintenance and fewer accidents. On the environmental side, eco-driving training was found to be effective in reducing fuel consumption in the short term, although longer-term analyses indicate that the impact is reduced over time. Fuel saving and speed reduction are the two targets achieved by these measures, with accident numbers and noise levels decreasing as a consequence. In both cases, cost-benefit analyses show that the measure is effective, both socioeconomically and financially (EU Sustainable Mobility Concepts, 2013).

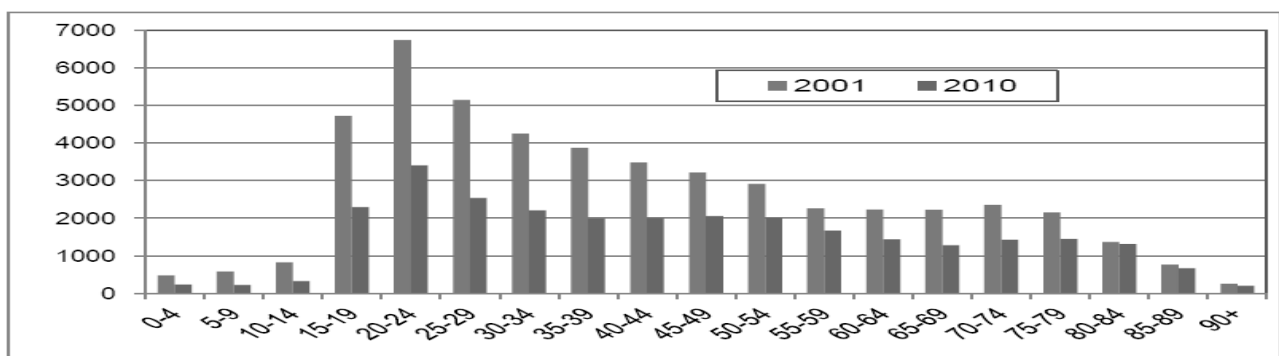
Given the worldwide popularity of eco-driving instructions, it is of the utmost importance to not only assess the real changes in terms of fuel consumption and travel time but also on emissions and safety. The joint consideration of optimal benefits for road safety and vehicle emissions is an area that merits further research because benefits to both issues are highly desirable (Carslaw et al., 2010).

Research results and discussion

Road traffic accident statistics

The authors conducted a road traffic accident analysis with the aim of identifying the main groups of drivers, which by the EU statistic data are most involved in road traffic accidents with serious consequences.

An analysis of age and gender was performed, identifying driver groups with the highest risk of being involved in road traffic accidents with fatalities. Top priority should be given to these groups in organizing educational activities related to traffic safety. Figure 1 compares the number of fatalities between the years 2001 and 2010 in groups with ranges of five years. The distribution remained broadly the same, with the highest fatality numbers between the ages of 15 and 29 years (Brandstaetter, C., et al., 2012).



Source: Brandstaetter, C., et al., 2012

Fig. 1. Fatalities by age group, the EU-19, 2001 and 2010

Table 1 shows the distribution of fatalities by age groups in Latvia compared with EU-24. In Latvia, as in other EU countries, the average proportion of accidents with fatalities is in working ability range between 25-59 years. This fact is an important indicator for employers of the need to educate employees about road safety.

Table 1

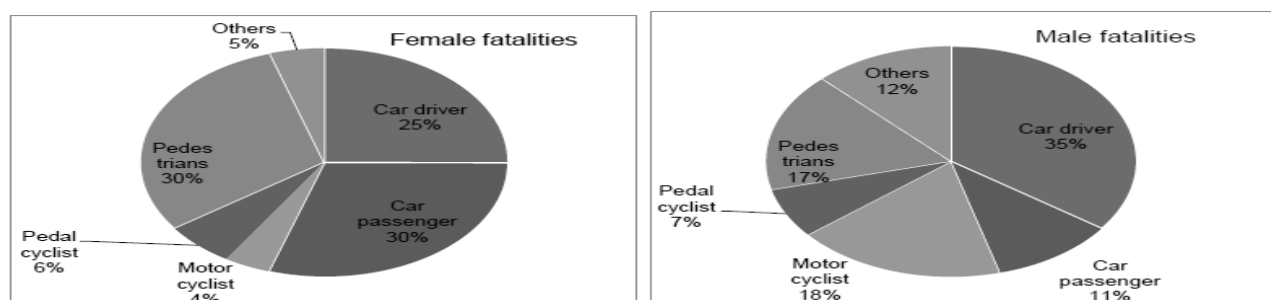
Distribution of fatalities by age group in Latvia compared with the EU-24, 2010

Age group / country	0-14	15-24	25-59	60-99	Median age
LV	4%	17%	54%	25%	45
EU-24	3%	20%	51%	27%	40

Source: Source: Brandstaetter, C., et al., 2012

An analysis by mode of transport and road user type identifies the target audience with a higher possibility of risk to be involved in road traffic accidents with fatalities. An individual educational methodology for each of these groups can be applied, according to the group's main interests and habits.

Figure 2 shows the male and female distributions of fatalities in the EU-24 by road user type, and these differ considerably. Nearly two thirds of female fatalities were car passengers (30%) or pedestrians (30%) while only 11% of male fatalities were car passengers and 17% pedestrians: 18% were motorcyclists (Broughton J. et al., 2012).

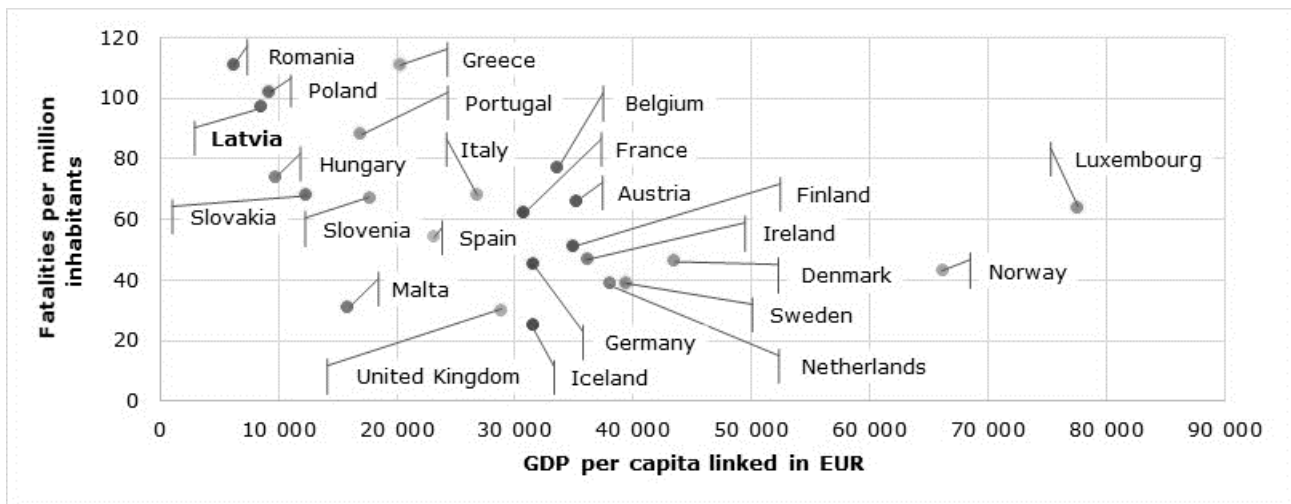


Source: Brandstaetter, C., et al., 2012

Fig. 2. **Distribution of male and female fatalities by mode of transport, the EU-24, 2010**

The authors compared **Gross Domestic Product (GDP)** and **geographical tendencies** indicators in Latvia with average indicators in the EU countries with the aim of making an in-depth research on improvements in traffic activities.

Figure 3 shows the distribution of fatalities per countries by GDP per capita in 2010. Countries with a lower GDP experienced tendencies with the highest rate of fatalities.



Source: Eurostat and CARE (authors' design)

Fig. 3. **Distribution of fatalities per GDP per capita, the EU-24, 2010**

The geographical representation of fatality rates in Figure 3 shows a tendency for rates to be lower in the North than in the South and lower in the West than in the East, which is probably the result of different historical backgrounds and policies for traffic safety (Brandstaetter, C., et al., 2012). Hungary and Slovakia have a similar GDP as in Latvia but with slightly more positive traffic accident statistic. The national traffic safety departments of these countries should conduct exchanges of experience on improvement activities, and community groups with similar financial capabilities could also take part in such activities. Similarly, the authors propose a further in-depth study of Iceland, the United Kingdom, Malta, the Netherlands and Sweden regarding traffic safety experience and activity since the statistical rates of fatalities in these countries are the best in the EU.

From the data in this section the authors conclude that national economic indicators affect society's behaviour and there is a direct observable correlation to road traffic accident statistics. Accidents with serious consequences resulting from common causes are shown in the South-Eastern countries (including Latvia) and they are associated with driving the car or being in a car that was involved in a road traffic accident.

Road traffic accident consequences impact on society

Road traffic accidents reduce or permanently change the quality of life for the victims and for their families, negatively affect the economic situation of the drivers who caused the accidents as well as negatively affecting health care capacity, performance of public health statistics, insurance and legal institutional capacities.

A road crash can have far-reaching and long-term consequences, not only physically but also psychologically and socially, and not only for the victim but also for his/her relatives and friends. Sometimes, longer-lasting support may be needed, either by professionals or by volunteers. In medical terms, the psycho-social support has to be understood as a preventive measure, since traumatic events like road crashes can create post-traumatic stress disorder

which result in further health risks and damage (European Commission. Best practices in road safety, 2010).

The health benefits of improving fuel consumption, and the resulting lower emissions, are harder to determine, there is a growing consensus that they do exist. Improving safety also has financial and health benefits. Road trauma results in high economic and social costs, both in lost productivity and demands on the health system (Rakotonirainy et al., 2011).

In economic terms, the cost of road crash injuries is estimated at roughly 1% of gross national product (GNP) in low-income regions such as Africa, Asia, Latin America and Caribbean; 1.5% in middle-income regions such as Middle East, Central and Eastern Europe; and 2% in high-income and highly motorized countries such as Australia, Japan, New Zealand, North America and the Western European countries (Peden, M, 2004).

Regardless of the costs of health care and rehabilitation, injured people bear additional costs. Eighty-five percent of the families of disabled road traffic survivors reported a significant decline in their quality of life. In all countries, the loss of income earners and the costs of funerals and prolonged care for disabled people can push families into poverty. A recent study in Bangladesh found that 21% of road traffic deaths occurred to household heads among non-poor people versus 32% among poor people. Three quarters of all poor families who had lost a member to road traffic death reported a decrease in their standard of living, and 61% reported that they had had to borrow money to cover expenses following their loss. Families who are deprived of the earning capacity of members disabled by road traffic injuries and who are burdened with the added cost of caring for these members may end up selling most of their assets and getting trapped in long-term indebtedness (Peden M. et al., 2004).

The authors conclude that accidents have a negative impact on revenues of the economic and social sphere that would otherwise have been possible to deflect for improvement to the public's overall health and quality of life. The long-term rehabilitation of the working ability population brings losses to employers, who are forced to hire and train additional employees, and also reduces the effectiveness of the social system and the development in the long run.

Eco-driving training effect

In this chapter, the objective of the authors is to analyse and evaluate the effectiveness of eco-driving training of several target groups with different cultures and habits.

Driving behaviours can influence both fuel economy and safety. A positive correlation between crash rates and fuel consumption was found in a large corporate fleet (Haworth & Symmons, 2001). In contrast, another study demonstrated that the drivers who had the lowest fuel consumption were not necessarily the safest or those who complied with the eco-driving instructions (Saint Pierre et al., 2010).

A recent French study involving 1,200 passenger vehicles has shown that most of the drivers ignore the main Eco-driving instructions despite their strong motivation in reducing their fuel consumption (Delhomme, Paran & Nicolas, 2010).

Managing driver safety, for example, could not only reduce the number of accidents but also lead to lower insurance costs and result in less down time for staff members and their vehicles. Cars driven correctly can also result in savings in fuel costs and employees who have polished their skills through attending a driver training course, for example, are likely to feel less stressed when driving on business. The promotion of better health and safety driving practices could even spill over into an employee's private driving which, in turn, could reduce their risk of being injured in an accident outside of working hours (Centaur Media plc, 2006).

At the core of many eco-driving programmes, a variety of advice is provided to drivers to minimize fuel consumption while driving. Different eco-driving programmes in Europe have been found to yield fuel economy improvements on the order of 5 to 15% (Onoda, 2009). The study in Vietnam has ascertained the positive effect of the eco drive activities on vehicle fuel efficiency improvement. The findings have shown that the average fuel reduction is about 6.0% and 2.0% in suburban and inner city courses, respectively. Although the reduction results are not so high, it shows a potential for introducing eco-driving as a friendly environmental technique to road transport system towards GHG improvement (Hiep et al., 2013).

The safer driving behaviour results from: an anticipating driving style; maintaining a steady speed; less speeding; less overtaking; less stress/aggressiveness. Eleven months after eco-driving training, a German company HAMBURGER WASSERWERKE effected fuel consumption reductions of more than 6%, accidents and related costs could be diminished by more than 25%. Eco-driving programmes prove to be very cost-effective. The Dutch eco-driving programme results in a cost-effectiveness of about €5 per avoided ton of CO₂ emissions over a period of 10 years. CANON COMPANY in Switzerland trained the eco-driving style with 350 service car drivers in VSZ VELTHEIM. The drivers reduced fuel consumption by 6.1%, had 22% more km per accident and 35% less accidents in total (ECOWILL).

The drivers who had received training tended to decelerate earlier, using momentum. They drove more smoothly and in a much more proactive way and thereby saved a lot more fuel than before. In the driver group which had received training the fuel economy in the second and the third month after the training amounted to 6.8%. Six months after that, it was still at 3.7%. In the control group which had not received any training, no such reduction in fuel consumption occurred. During the test drives the speed of both groups was practically identical. The pre-post comparison showed that the journey time for the daily tour had not increased (ECOWILL).

The impact of technology use

One potential way to change drivers' behaviour on the road is to use feedback technologies. The purpose of this chapter is to identify the benefits of the use of technological solutions that can have a positive influence on road safety.

Vehicle's built-in eco-driving supported technologies

Numerous studies have been conducted in which car manufacturers such as Fiat, Ford, Toyota, and Nissan tested feedback technologies using on-board systems to enforce a sustainable driving behaviour. An obvious link between financial benefits and individual's motivation to reduce their fuel consumption was highlighted (Tulusan et al., 2012).

The study by Boriboonsomsin (2010) in the United States evaluated how an on-board eco-driving device that provides instantaneous fuel economy feedback affects driving behaviours, and consequently fuel economy, of gasoline-engine vehicle drivers in the United States under real-world driving conditions. The results show that on average the fuel economy on city streets improves by 6% while the fuel economy on highways improves by 1%.

The latest vehicles have technologies using on-board systems to enforce a sustainable driving behaviour such as gear change monitor and eco-driving mode. This equipment is available as standard and buyers' choice is not based on their willingness to improve driving safety. The traffic safety equipment selection, as for example City Safety System, Pre Crash System, Collision Avoidance System, Night Vision System, and Pedestrian Detection System i.e., are purchasing options and no separate research has been made indicating the main factors of consumer's motivation in choosing these options.

The smart phones

As smart phones are becoming increasingly available, several applications have been created to use the phone's internal technologies, such as GPS and accelerometer, to deliver context related feedback to drivers. Examples of these applications are: DriveGain, EcoDrive, GreenMeter, Fuel Saver, Green Driver, BlissTrek, iEcoMeter, Green Gas Saver. However, compared to other available eco-driving technologies (i.e. in-vehicle -, on-board -, or navigation systems), eco-efficient smart phone technologies seem, at present, underutilized. Feedback types identified to reduce fuel consumption were: correct gear changing during acceleration and smooth acceleration (Tulusan et al., 2012).

Global positioning systems (GPS)

Even though the technology has been out there for quite a while, only recently GPS fleet tracking solutions became available to small and medium size enterprises. Before that only the largest and wealthiest companies were able to afford GPS tracking, now the situation has changed. Not only are there a lot more enterprises that can afford these services, but there is also a big demand for them. GPS tracking solutions have proved to be an effective tool that helps companies reduce their costs, increase efficiency and have more control over their vehicles. GPS tracking combined with fuel monitoring devices can help analyse driven routes and fuel consumption data in order to optimize transportation services (Zarins, 2014).

A Research programme by Vonk (2007) proves that GPS solutions have a positive effect on traffic safety. Key findings: the use of car navigation improves the driver's behaviour when driving through an unknown area; heightens alertness and reduces the stress levels of the

driver; reduces the amount of miles driven by 16%; reduces travel time when driving through an unknown area to an unknown destination by 18%; reduces the workload (the amount of effort it takes the driver to drive) of the driver when travelling through an unknown area to an unknown destination. Drivers who do not have the use of a GPS solution have 12% more damage claims.

Conclusions, proposals, recommendations

1. National economic indicators affect society's behaviour and there is a direct observable correlation with the road traffic accident statistics.
2. Road traffic accidents with serious consequences are mostly in the working ability age range between 25 and 59 years and are associated with driving the car or being in a car that was involved in a road traffic accident.
3. Road traffic accidents have a negative impact on the economic and social sphere that would otherwise have been possible to deflect for improvement to the public's overall health and quality of life.
4. Driving behaviours of individuals can influence fuel economy and traffic safety. The promotion of better health and safety driving practices could even spill over into an employee's driving which, in turn, could reduce their risk of being injured in an accidents.
5. Eco-driving supported technologies for vehicles positively affect driving behaviours and consequently fuel economy. Technological solutions have proved to be an effective tool that helps companies reduce their costs, increase efficiency, improves the driver's behaviour and reduces the stress levels of the drivers.

To improve road safety and socio-economic prosperity in a long term, it is recommended to change the vehicle driver's driving behaviours at a national level. The authors propose to start discussions to incorporate eco-driving training programme elements as a mandatory in car driver's certification programmes; for the youngest drivers, who just received a driver's licence between the ages of 15 and 29 years, it is proposed to restrict ability to drive the vehicles (or other motorised transports) with high engine power and to incorporate the two level of re-examination programme with eco-driving principles as well as with training in different difficult road (wet, slippery, icy i.e.) conditions included.

For the preventive improving the company's efficiency and staff healthy, the authors recommends the following activities for entrepreneurs:

1. To introduce mandatory briefing on traffic safety and eco-driving principles for employees as well as introducing preventive educational activities that can mitigate potential traffic risks;
2. To include in transport fleet purchases a mandatory criteria, which would request that eco-driving and fuel consumption assistance features be installed in the vehicles;

3. To implement in transport fleets operation the technological and administrative solutions to control economic usage of the vehicles as well as to use the electronic devices (for example GPS systems) to support the driving mode and to control fuel consumption.

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SITUATION ANALYSIS OF SOCIAL RISK FAMILIES WITH CHILDREN IN LATVIA

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Abstract. Children have rights to grow up in favourable conditions that facilitate their development. But not all children can enjoy this, as there are more than 12 thousand risk families with 6.7% of all the dependent children in Latvia. The aim of the paper is to investigate the situation related to the social risk families in Latvia - to identify problems these families are facing, and to evaluate support provided by the state and the local governments. Situation analysis is based on publicly available statistical data and 24 semi-structured in-depth interviews with heads of social service offices and social work specialists. The research shows that families at social risk are characterized by a variety of problems - poverty, alcohol abuse, violence, unemployment, poor housing and other. Most of the problems are related to poor basic skills or lack of them, also to lack of motivation to change. Support for social risk families is provided by the state and local governments but as research data show, there are obstacles to problem-solving, especially in rural areas - shortage of financial and human resources; inadequate inter-institutional cooperation and coordination of work; and the lack of preventive work. To improve work with social risk families it is essential to elaborate more responsive system of services for families with children, to establish more effective collaboration between professionals and to allocate additional financial resources.

Key words: social risk, social risk family, social support.

JEL code: I31, I32

Introduction

Children are entitled to such living conditions and favourable social milieu that promote for their wholesome development. Healthy development can only be ensured in families in which needs of all the members are met. However, the statistics show a considerable number of families facing difficulties in this respect, thus threatening healthy development of children in

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these families. The number of such families is higher in rural areas than in urban areas. In 2011, there were 12,530 social risk families registered in Latvia. These families contain 6.7% of all the dependent children (Millere, Pranka, 2013). Risk families are often large families. In order to support families exposed to social risk, it is essential to establish risk mitigation and prevention system that should be focused not only on providing support in the event of risk occurrence but also on risk assessment and prevention, and such support system for risk families with children has been established in Latvia at the national and municipal levels.

The necessity to support families facing difficulties is provided by the theory of structural functionalism. From the perspective of functionalism system can survive and be sustainable only if all its elements function properly. If some of the elements are dysfunctional, and social risk families can be looked upon as such, the balance is destroyed, and the system's sustainability is threatened.

The aim of the research is to investigate the situation related to the social risk families in Latvia, focusing on rural areas. The following tasks are set: 1) to study the theoretical aspects of social risk; 2) to identify problems these families are facing; 3) to evaluate support provided by the state and the local governments. The study focuses particularly on the capacity of the municipalities to deal with the problems, regarded from the point of view of the social work specialists.

Situation analysis is based on publicly available statistical data that provide information about socio-demographic and socio-economic situation and characterize external risks and background factors of risk families. The study also employs the qualitative research data – 24 semi-structured in-depth interviews with heads of social service offices and social work specialists, working with families with children, from 12 municipalities (Vecumnieki, Nereta, Daugavpils, Balvi, Vilani, Gulbene, Salacgriva, Sigulda, Ape, Strenči, Ventspils and Skrunda municipalities). Interviews were carried out in 2013. The study characterizes the situation and the problems related to social risk families as well as solutions local governments are currently able to provide.

Results and discussion

Conceptualization of social risk family

Although members of the society have always been exposed to certain risks, defining the concept "risk" has become particularly topical in the recent decades. Nowadays risks are analysed using different approaches and methods. All these different approaches possess a common element – distinction between the available and the selected actions. The sociologist Ortwin Renn implies that the concept "risk" denotes possibility that certain human actions or natural events lead to undesirable consequences. Analysing the definition of risk, it can be concluded that the concept of risk comprises three interrelated elements: outcomes that affect aspects of what humans value; possibility of uncertainty as well as the combination of both these elements (Renn, 2008).

Risk can be analysed in three levels – individual level, focusing on a child, family and community levels. In the first level it can be argued that all children are at risk in some way or another; likewise it can be claimed that some children are more exposed to risks than others. For instance, children are seen as at risk if they are disabled, have low self-esteem, have demonstrated behaviour problems or have been abused. Alternatively, it is possible to claim that children themselves should not be looked upon as being at risk – risks are caused rather by the environment in which they develop. It could be proposed that the family in which a child grows is a source of risk. According to the second approach_family-related risk factors, such as poverty, single parenthood, low parental education levels, a large number of children, not owning a house, welfare dependence, family dysfunction, abuse, parental mental illness, parental substance use, and family discord or illness have been found to undermine child's development. The third approach focuses on community, neighbourhood or school as risk-involving environment. For example, a low-income community with a high crime rate, high level unemployment and low high-school graduation rate might be viewed as a place that puts children and adolescents at risk of poor outcomes (Anderson Moore, 2006).

Identifying risks it is sometimes impossible to distinguish between these levels. For instance, defining what children at risk are, the phrase is sometimes used to refer to poor life outcomes in general. Also when outcomes for children are mentioned, there is a tendency to refer to general, long-term deficits, such as school failure, death, economic dependency or incarceration. Consistent with its aim, the current study focuses on theoretic explanations of the risk phenomenon related particularly to the families with children.

In scientific literature different family-related indicators of risk can be found; however, the current study addresses the indicators of social risk in families with children: economic stress issues; substance abuse, child abuse and neglect issues, domestic violence; child development issues; changes in typical behaviour; other factors which contribute to the family's inability to deal with stress in a way that is healthy and productive (Definition of Families...).

The main criteria for identifying social risk families in Latvia are capabilities of these families to satisfy the needs of the children. Social risk family is a family in which healthy development of children is endangered, basic needs, including emotional needs of children, are not met and children are at risk of losing care of their biological families (Latvijas SOS Bernu..., 2013)

The association SOS Children's Villages Latvia points out three levels of risks (Latvijas SOS Bernu..., 2013). The level of risk indicates potential deficit in meeting basic needs of children and the risk of being separated from families; level of risk is also denoted by the activities of a caregiver in search for help and willingness to accept offered help and support. Risk factors are related to the caregiver's ability to recognize child's needs, to participate in child's care as well as to practical capacities and resources available to the caregiver.

Every child has the right to grow up with their parents. Children who have been separated from their parents are more often exposed to violence, exploitation and maltreatment. Therefore, it is important to support risk families. If the support is provided, children are more

often protected from violence and abuse, do not live on the street or face the risk of being separated from their parents and placed in institutions (Families at Risk).

To summarize the above mentioned, families can be exposed to risk for a number of reasons: different kinds of violence, unemployment, drug abuse and mental illness – these are just few of the risk factors that have a direct impact on the development of children. Insufficient resources and poverty are particularly important risk factors.

Characteristics of the situation

The population of Latvia amounts to approximately 2 million; 17.3% of them are children under the age of 18. About 1/4 of all households are households with children (Central Statistical Bureau..., 2014).

The figures characterizing socio-economic situation and living conditions show that all indicators in Latvia are worse than the European average: unemployment rate is 15.0%, long-term unemployment rate is 7.8%, at-risk-of-poverty rate is 19.4%, severe material deprivation rate is 19.6%, and at-risk-of-poverty or social exclusion rate amounts to 36.6% (EUROSTAT). Data show that the situation of families with children is worse than the average, especially of single-parent families and families with three and more children (Table 1).

Table 1

Characteristic of material situation (%)

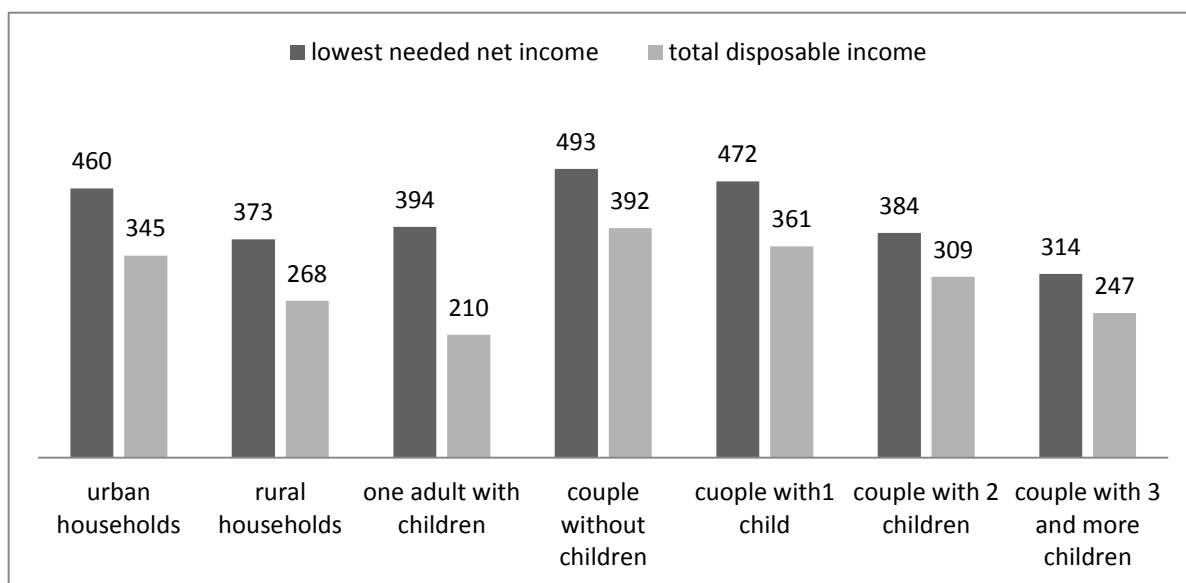
Household type	At-risk-of-poverty rate	Subjective evaluation of the ability to make ends meet	
		with great difficulty	with difficulty
All households	19.4	27.0	29.6
single parent with children	38.3	34.1	31.7
2 adults with 1 dependent child	14.5	14.3	26.1
2 adults with 2 dependent children	16.0	18.5	23.8
2 adults with 3 and more dependent children	32.6	36.9	27.0

Source: authors' calculations based on the Central Statistical Bureau of Latvia, 2014

Consumption expenditure by number of children in household shows the same trend: average per-household member expenditure for those without children is EUR 316 monthly, and it decreases as the number of children increases, reaching EUR 150 for households with three and more children (Central Statistical Bureau ..., 2014). Unfavourable financial situation of households is characterized also by data that show significant difference between the lowest net income necessary to make ends meet and the total disposable income. The trend that families with children, particularly single-parent families and those in rural areas, are in worse position is obvious (Figure 1).

Data show that households in rural areas have more difficulties to meet their children needs. The number of those families who cannot afford three meals a day, fruits and

vegetables, new cloths, two pairs of shoes for children is almost twice higher in rural than urban areas (Latvijas Republikas Centrālā..., 2013).



Source: authors' construction based on Income and Living Conditions in Latvia, 2013, 2014

Fig. 1. Comparison between the lowest necessary and disposable income (EUR)

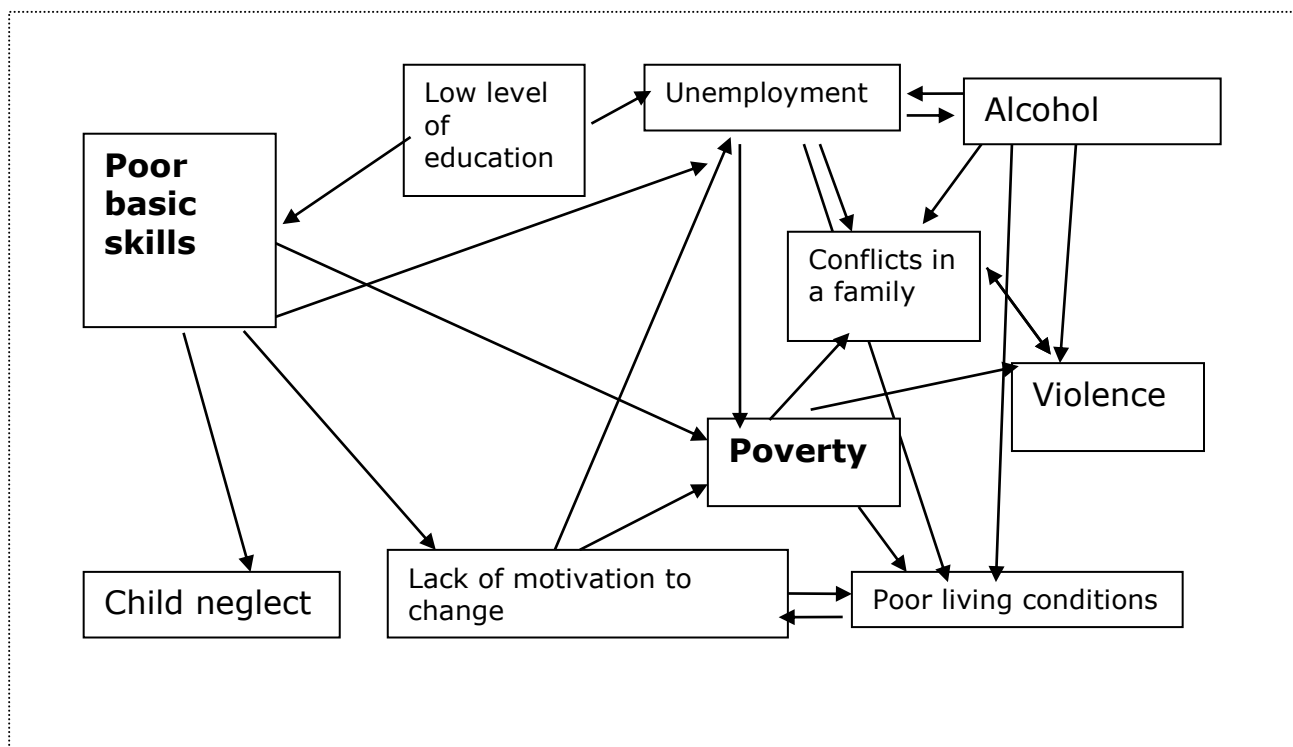
The figures above can be used to characterize the socio-economic situation but they do not have any other practical application, because only individuals with a status of a needy person (income less than EUR 128.06) are eligible for social assistance. Since this is a very low level of income, the number of needy persons is relatively small, amounting to 10.3% in 2012 (Informācija par pasvaldību..., 2013), however, 19.8 % of children had the status of a needy person in 2011 (Millere, Pranka, 2013); it means that about 1/5 of all children have difficulties to meet their basic needs.

Socio-economic problems are important but they are not the only problems families are facing (Figure 2). The interviews' data show that families at social risk are characterized by excessive alcohol consumption, physical and emotional violence, lack of mutual conformity, unemployment, housing problems and the lack of opportunities for self-realization. Most problems of risk families are related to poor basic skills or complete lack of them, also to lack of motivation to change and to improve their living conditions.

Social workers point to insufficient involvement of social services in developing basic social skills of these families as well as to a variety of methods and resources that could be used to teach the necessary skills, e.g. involving family assistants, developing social housing, providing training to young families, developing youth homes:

"...there would not be many families at social risk, if there were possibilities of timely training skills to raise children..." (Ventspils municipality), *"...work should be implemented with mothers to teach them basic skills – cooking, cleaning, doing the laundry, shopping. Then there would not be so many children that have to be taken off their parents. We are ready to*

pay for a supporting person. Before the crisis [these provisions] were included in the binding documents; during the crisis [they] were taken out..." (Skrunda municipality); "...some families are unable to function – they do not know how to survive with their low income; they have low requirements for life and they are unwilling to change life, find a job... It would be necessary for family assistants to work with these families, ideally – in group-homes for low income families..." (Sigulda municipality).



Source: the summary of data based on the results of in-depth interviews

Fig. 2. Main problems and causes related to families at risk

The issue of the lack of basic skills is particularly topical for young people when they leave institutional care: "...young people after non-family care lose the granted housing, because they do not know how to live...what to do?... youth house is needed at least for one year after leaving an institutional care..." (Balvi municipality).

The informants also point to the widespread lack of motivation to develop and improve the living conditions: "...there is the lack of professional work with parents. For example, in the situation when the child is put in a children's home, parents do nothing to get the child back. How to motivate, to achieve that family is interested in recovering?" (Nereta municipality)

Informants also note other problems that are specific to the risk families, e.g. violence, excessive alcohol consumption, inadequate housing conditions. It is also pointed to the insufficient resources of the municipalities to solve the problem and to render help and support to these families. "... female victims of violence – they have nothing, just a psychologist. About 12 women at the moment are in need of a professional rehabilitation... our resources cannot ensure it... we do not have addiction specialists, just general practitioners. To see the

addiction specialist, a person should travel 35 kilometres to Rzekne – who of these people in the country have such sum of money? We do nothing, just talk and extort benefits.” (Vilani municipality).

The study also demonstrates the opinion that problems for the families at risk are often inherited, and there is lack of positive examples.

Support by the state and municipalities and factors restricting it

The state and municipalities are obliged to provide support to families with children, particularly to large families. Social assistance and wide range of social services are offered to these families. Much attention is paid to material assistance – for supporting families and children LVL 160 million (approx. EUR 227 million) were used in 2011; 82.4% came from the State budget and 17.6% were allocated by the local governments (Latvijas Republikas Centrālā...,2013).

The State issues universal benefits - childbirth allowance, childcare benefit, parental benefit, state family benefit, state social security benefit etc. These payments are mostly flat-rate or related to social insurance. Unfortunately universal benefits are not flexible, as they do not consider material situation of a particular family. Local governments that provide support have more potential to respond to particular risks after evaluating the particular situation.

Provision of social assistance is mainly responsibility of the local governments, and it is means-tested. Local governments provide guaranteed minimum income benefit, housing benefit, benefit in emergency situations and other benefits to support the poorest persons. But they fail to address the problems because of inadequacy of these benefits and low coverage. For example, in 2012 only 54% of needy persons, including 33 thousand children, received the guaranteed minimum income benefit, 75% - the housing benefit (Informācija par pasvaldību..., 2013). However, social assistance has impact on the improvement of material situation of households. According to the statistics, 26.8% of the income of single-parent families and 18.4% of the income of large families come from social transfers (Latvijas Republikas Centrālā..., 2013); at-risk-of-poverty rate before all social transfers is 43.0% but after transfers it is reduced significantly to 19.4% (Income and Living..., 2014). In 2015, certain increase of state social benefits is planned.

Social services, reimbursed by both the state and the local governments, are available for families. The State provides social rehabilitation for children – for the victims of violence; for drug-addicts, for persons with visual or hearing disabilities, for working-age persons with functional disabilities etc. Other services are under the responsibility of local governments but the available services fail to address all the necessities due to the limited financial coverage.

The study results show that specialists of social services are not satisfied with the result available resources can ensure. The informants mostly point to the lack of financial resources as main obstacle to providing support and implementing the work successfully. There is opinion that support to the families-in-need is often limited to the identification of the

problem: "...there are cases, when during ten consultations problem is identified but what to do after? Nothing happens after that." (Ventspils municipality). "...we could rehabilitate much more families, for instance, those having conflict situations but we cannot do it, because we do not have money. We would like to isolate family members who had suffered from violence but it is not possible. We have a crisis room but the abuser may access it. To purchase this service for twenty days – it is expensive..." (Ape municipality). The problem of limited resources as the obstacle to obtaining good results was mentioned by nearly all the informants.

Other reasons unrelated to the scarce financial resources were also mentioned. Social workers consider inter-institutional cooperation to be weak and ineffective; there is also a lack of coordination between various specialists involved – each specialist is doing something but the work is not oriented towards a common goal. Problem-solving is also hindered by the lack of necessary skills: "No teamwork... Specialists also frequently lack necessary competencies and skills..." (Strenci municipality). The informants possess an opinion that education establishments should be more involved in problem identification and solving already in the period of adolescence; they should cooperate more but the current experience shows that cooperation with schools is very difficult, and as the result of this families acquire social risk status: "...cooperation with schools is required, and the cooperation is not always positive. Children run away from schools, and these schools do not attempt to solve the problem – the social service can do nothing in such situations..." (Ventspils municipality). "...we face difficulties cooperating with schools because they lack understanding of who should do what..." (Nereta municipality).

It is also pointed to insufficient human resources; more social workers to work with families and children and also skilled service providers are essential to ensure successful work implementation. Services should be more available and accessible – closer to the residences. "We need more social workers to work with families and children – there is only one social worker for work with families per 5,000 population. This is not the right approach... there is a shortage of service providers; those who are available are not always providing the best result, for instance, school psychologists and social pedagogues are worth nothing – they work just with children and are subjected to the management of the institution. Schools do not want to cooperate. Also a speech therapist is only diagnosing..." (Balvi municipality).

It is claimed that, solving problems related to risk families, too much emphasis is put on the material aspect and there is a lack of preventive work; the family is underestimated at the national level. "...the state mostly cares about the material aspect but there is a need of the preventive care" (Balvi municipality). "...in general, all the public policy is not focused on the family; the family is not a value, and everything results out of this..." (Ventspils municipality).

The social workers express an opinion that work with risk families is less effective also because local government members have limited awareness of the activities of social services: "...they do not understand what we are doing and for what purpose..." (Vilani

municipality). Most social service professionals lack different kinds of resources when rendering support to the risk families, and this fact is a serious obstacle to a successful problem solution.

However, the lack of resources is not the only problem. The study also points to the internal risks – particular characteristics of the clients – that lead to the current problems *“...rural municipalities have limited resources but the worst thing is our clients’ lack of responsibility and low motivation to improve their living conditions...”* (Balvi municipality).

The current study shows that the problems are mostly attributed to low basic skills and low motivation for improving living conditions, and these factors cannot be prevented by granting additional financial resources to the risk families. In the current situation social services are financially supporting these families but this support turns out to be short-term, as the causes of the problem remain. In order to improve the situation, the work of social service specialists has to be intensified and the range of available social services widened.

Conclusions

Children are entitled to such living conditions and favourable social environment that promote for their healthy development. However, these conditions are not ensured for many children, because 6.7% from all the children in Latvia live in risk families.

The scientific literature presents different understandings regarding the concepts “risk” and “risk family”. This study defines risk family as a family in which favourable preconditions for wholesome development of children are not satisfied, basic needs, including emotional, are neglected, and the risk of losing the biological family care is persistent.

Risk families with children are facing a variety of different problems: poverty, social exclusion, violence, unemployment, drug abuse etc. In social work specialists’ opinion, most crucial factors that contribute to social risk are lack of basic skills and lack of motivation to change and to improve one’s living conditions; problems for the families at risk are often inherited, and there is lack of positive examples.

Wide range of support for social risk families is provided by the state and local governments. Main focus is on the material support – allowances and benefits; however, social services are offered to risk families, too. Social work specialists are aware of the importance of the material assistance to these families; yet they acknowledge that this support does not address all the problems of risk families, because material assistance neglects causes of the problems, therefore professional social work with risk families is essential.

The main obstacle to problem-solving, especially in rural areas, is shortage of resources – financial and human as well as shortcomings related to inter-institutional cooperation, coordination of work; also inadequate understanding of the problem and the lack of preventive work. Effective and responsive system of services for families with children as well as more effective collaboration between professionals and allocation of additional financial resources to

improve quality of the social services is crucial and needs to be coupled with additional support for the most vulnerable population.

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COMMUNITY STRUCTURE AND ELEMENTS AFFECTING ITS ACTIVITY: CASE OF JAUNPILS COUNTY

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Abstract. A single person, a group of persons or a social class forms a background for social structure of each society – needs, values, interests, social norms, lifestyle and agreed behaviour form its identity. Communities unite individuals and different groups performing a certain social role and maintaining their common core values, interests or locality and contributes its enhancement. Socio-economic environment is mainly determined by society's ability to cooperate – important precondition for it is a social trust which is determined by social structure, a sufficient presence of active individuals and existence of closely linked communities.

Territories in modern Latvia differ immensely when compared on the grounds of social capital. Last ten to twenty years have introduced negative socio-economic development, population decline and other factors that mostly affect rural areas. In order to better understand the qualities of social capital the study was focused on Jaunpils county (*novads*) with an appropriate population size for in-depth analysis.

The aim of this study is to discover the factors that influence and determine society's social activity by analysing the social structure from the standpoint of social activity and its geographical dispersion. Analysis of data collected from Jaunpils municipality and statistical information as well as qualitative methods - interviews and observations were used.

Research results indicate that active society and its social interactions is a precondition for liveliness of the place and maintenance of positive social environment where the portion of active individuals (leaders) and well organised and structured social activity are a key factors.

Key words: social structure, community, social activity, civic engagement, participation.

JEL code: Z130

Introduction

The role of social aspects gradually increases within planning theory, practice and related fields. There is a diversity of views on the human potential and potential of social activity –

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human resources, human capital, social capital (Becker, 2002). There are several approaches to describe individual's or group's activities. Social capital is a potential resource belonging to both a single being and a group.

Modern planning theories and studies increasingly stress social capital's importance as it unites the society, strengthens the trust within the social groups, outlines the benefits of collective effort and mutual benefit (Helliwell, Putnam 2004). It seems that traditional capitalistic understanding of "capital" is shifting towards more humanistic meaning that facilitates free will, equality, participation, and interconnectivity among people, families and groups (Putnam, Goss 2000). Capitalistic society slowly prefers to liberal values – a society that more often places moral values in front of material. Such trend increases the importance of individual trust, interaction, networking and bonding.

Among the most obvious forms of social interaction is formation and development of community which is influenced by many factors. Communities form when group of people have common goals, views, interests, tradition and relationship based on relational interconnectivity and networks (Chaskin, 1997). Community's activities are usually closely linked to a geographic location and attachment to it (Peterman, 2000), however, other examples indicate communities where networks and connections are based on social, cultural and functional relations.

Lively and active community groups refers to important elements of presence of social capital within society. Different forms of public activity can be categorised on a scale according to the level of formality that describes them – starting from informal activities, such as group leisure activities, attendance of culture and sports events, joint communal work etc., up till semi-formal and formal activities like NGO, participation in municipal planning documents, election etc. Common form of community leisure activities in Latvia, which is largely supported and often even funded from a municipality budget is amateur-arts groups like choir singing, folk-dancing and amateur theatre (Daugavietis, 2015).

The paper aims to identify the elements that affect community's activity and structure in Jaunpils county (*novads*). In order to achieve the above mentioned goal, main tasks were defined: 1) identifying factors of social activity; 2) analysis of socially active groups; 3) identifying forms of social activity and territorial dispersion.

Both quantitative and qualitative methods were used for implementation of the tasks defined. An in-depth analysis was performed on the social structure, social activities, and its geographic dispersion. The source data were collected from Jaunpils municipality, local face-to-face interviews with the most active inhabitants in the county as well as multitude of statistic data sources such as population registry, property registry, municipal databases, NGO activity reports, reports on public involvement, data from social services and other sources.

A closer look reveals that neither geographic location, nor comparison to other counties on the grounds of quantifiable development indicators indicate Jaunpils county's superiority thus their success might be attributed to significant social capital. In the midst of Latvia's rural

counties Jaunpils was picked to study local community and the factors that influence and determine its social activities that at the first glance seemed well developed, deeply rooted in the community and their practices.

The paper contains chapters on factors that determine community's activity, analysis of socially active population, overall social structure, forms of social activity and its geographic dispersion, community emergence and territorial layout. The main conclusions and proposals for further research are included in final chapter.

1. Determining factors of activity within the community

How it is possible to distinguish between communities ready to move on with their strategic vision from those that are not? Community's ability to cope with the future in an orderly, well planned and long-term consistent manner is an object of both academic and purely practical interest – identifying communities equipped with required social toolset to embrace change from those that are not yet ready is a key task for planners before moving on with implementation of any plan e.g. community's social capital or its capacity.

Planning professionals, community workers and municipality officials would benefit immensely from ability to assess community social capacity, thus, being able to better plan and allocate required staff resources for particular task. Communities possessing a strong social capital are better prepared to tackle long-term challenges and accomplish more refined and ambitious goals, whilst communities lacking proper social capacities require extensive preliminary work and conditioning (capacity building) before the community is ready for a long-term challenges (Chazdon, Lott, 2010).

The study seeks to identify the key factors that determine rural community's level of social activity and diagnose community's social capital as well as its capacity for cooperation and sustention of long-term development initiatives that require substantial financial and professional investment. The study also takes into consideration and adjusts for inadequacy and unavailability of proper statistic data to measure community's social capital and social capacity. Above listed limitations require for creative and unconventional data collection as well as some alternative community evaluation factors to be introduced and discussed within this study.

Formal civic engagement – immediate yet superficial factor indicating community's capacity for activity and engagement is described by participation in European (EU), national and regional election on both sides including the running candidates and portion of community taking part in voting. Nevertheless the formal civic engagement can be extended to participation in local and regional planning process, council meetings, opinion groups and other activities that contribute to healthy self-governing society.

Economic and Business figures – a close look at the health of locally based small and medium entrepreneurship (SME) reveals the quality of local business-minded community

activists. Business orientated leadership (indicated by the number of local SME's) is a quality of minute portion of community (approx. 3% of population) these individuals affect the rest of the community the most. General statistics such as number of SME's, employment rate, salary rate etc., explain some understanding of overall economic situation within the community, it rarely gives in-depth understanding of factors that drive activity within the community which can be better described by such unconventional figures as number of visitors per month at local businesses and services, rate of informal economy etc.

NGO activity – significant narrative of the state of community's social capital and capacity is being told by the number of active NGO within the area. Such factors as NGO directions of activity, the number of active members, portion of the community involved and the area NGO impacts as well as number of project activities accomplished and financial investment attracted also should be taken into account. NGO managing certain self-help groups is a sign of mature community ready to solve its own problems and take care of its long-term needs, thus, being an important aspect to be considered when evaluating the community.

Informal civic activity – while NGO represent formal side of communities capacity to engage the local challenges, significant part of activities are outside of formal and legal framework defined by NGO activity. There is a multitude of self-initiated activities a community may engage such as local tradition of joint communal work, adult education, lifelong-learning activities and other vocational activities like folk dancing and choir singing in particular. Quite often a substantial municipality budget resources are allocated to support this type of activities providing certain base for comparison and evaluation of this factor (Daugavietis, 2015).

Media analysis & Communication - the health of social capital and social capacity as well as general diagnosis of community are indicated by the presence and manner of overall communication. The healthy bi-directional communication among institutions, businesses and community indicates presence of advanced and ready-to-engage inhabitants as well as matured governance while content analysis of local media, notice boards and public meetings indicate the depth and capacity of the community's civic engagement.

General public activity – most unconventional and extra effort-intensive are factors that determine and illustrate community's general activities that can be easily overlooked and underestimated such as load (number of visitors) of local library, municipality, culture centres, social services, employment agency, use of children playgrounds and other public spaces such as parks and squares.

Local patriotism and general happiness – most likely the most elusive and difficult factor to determine and measure is a level of local patriotism and general happiness. Due to its intangibility and extensive social study this factor is often ignored or taken as granted with little or no data to back up the opinion. While it is last in our list the factor should not be overlooked and undermined as it is a crucial precondition for healthy attitude to all of above mentioned factors. Lacking local patriotism people will not care to invest any effort to improve either the physical space surrounding them or the social atmosphere within the community.

Lack of trust and general happiness will cause much the same. Thus, communities short of local patriotism, trust and life satisfaction require extensive capacity building before the community is ready to tackle any long-term challenge (Chazdon & Lott, 2010).

Community planning and community work is a smallest part of planning activities nevertheless it is a long-term action that lasts over years and requires substantial determination and investment. The studies indicate that community work is capable to seed and nurture the required factors and characteristics to create social capital, build trust, bridge differences, and engage community to take part in their activities (Chazdon & Lott, 2010; Mandell, 2010). Therefore, regardless of the obstacles and data elusiveness, there is a growing need to formulate a common framework for evaluating community's social activity, identify factors that stimulate it and discover the main points where proper stimulation can produce most effective changes.

2. Jaunpils county and its society

Jaunpils county is a small and a rather remote rural county with relatively high development index when compared to similar areas. Jaunpils social and economic situation, state of development, population structure, level of public participation indicate high level of social activity. Nevertheless there is a lack of available data that could link social activity to the overall territorial development and provide an objective baseline for comparison and the assessment of the effectiveness of the investment.

Jaunpils is located within Riga planning region and the county was formed as a result of the administrative-territorial reform in 2009 by merging Jaunpils and Viesatas parishes (*pagasts*). The county is relatively small (209 km²) and its administrative centre is located 92 km from the national capital Riga and 23 km away from neighbouring Dobeles which provides significant public, economic, social and culture services to the county.

At the beginning of 2014 Jaunpils county population was 2665 inhabitants – 84% of population living in historic Jaunpils area and 16% in historic Viesatas area (RDIM, 2014). The county consists of several villages such as Jaunpils (954 inhab.), Leveste (370 inhab.), Viesatas (161 inhab.) and Jurgi (146 inhab.) (OCMA, 2014). The county provides home for 1050 homesteads, more than half of them being a single farmsteads or single family estates with local gardens attached (Jaunpils County Development Program, 2012).

The main occupation in the county is farming and farming related supporting services – crop farming, dairy and meat production as well as supporting agricultural branches such as organic farming, eco-tourism, fish-farming and bee-keeping.

The county maintains relatively rich social life. In-depth interviews with municipality and other services indicate a large proportion of socially active persons within the society. The study found extraordinary busy NGO activity and high level of civic engagement in municipal and governance issues.

The inhabitants believe their strong suites are ethnic homogeneity, national patriotism and strong tradition, the presence of many educated and active people (leaders), large proportion of young families and enthusiastic and socially active youth. The interviewees point out the absence of abandoned estate and almost all of the farmland is in active use.

The inhabitants are highly patriotic and youngsters, even those who have emigrated for education or employment purposes, maintain high level of motivation to return to the home-area and take part in its development. Even municipal development strategy postulate a socially active inhabitant as one of the priorities (Jaunpils county development program, 2012), which is expected to become the main source of county's "energy" and fresh ideas in order to maintain the county's longevity and continuous existence. The main factors that support the high level of social activity in Jaunpils county are strong traditions, ethnic homogeneity, strong horizontal ties, active youth, tradition of adaptive municipal administration and effective planning.

3. The form and geographical dispersion of social activity

Formal civic engagement

Jaunpils county is slightly below (2-3 percentage points) national average level of formal civic engagement when measured by participation in election both on political level and the individual voters level. An important role in local politics is played by individual reputation and fame, direct personal relations to the electorate. Nevertheless there is a high level of predictability in municipal elections caused by both a trust in politicians and inert nature of voters that borderlines a chronic apathy not trusting any change to happen whoever gets elected. In other words, local elections play a minor role in local social agenda.

Economic and business figures

The county's business environment is described by three significant qualities: 1) larger proportion of entrepreneurs per 1000 inhabitants; 2) 3-5 leading companies play an extensive social role by providing employment and maintaining the environment. The companies include one of the biggest farms in Latvia, food processing plant, and pre-fabricated module house construction plant; 3) businesses occupy a diverse business areas thus, preventing the risk of specialisation. Meanwhile Jaunpils municipality employs small portion of society in comparison to similar rural areas making healthy economic environment.

NGO activity

In Jaunpils county are operating 28 NGO which on average make for 2 NGO more per 1000 inhabitants than national average (10.5 vs. 8.5 NGO per 1000 inhab.). The NGO's mainly focus on youth and senior citizens issues, participation in county's development, popularisation of healthy and active lifestyle, communal real-estate management, many of NGO's function also as leisure interest groups.

Informal civic activity

There is a wide spectrum of social, culture related, sports and other activity in Jaunpils county that have resulted in strong tradition of amateur arts and sports. While NGO and interest groups provide the opportunities there is a small portion of population (7 %) that regularly and actively use the services.

Communication

The main role in municipality communication is played by direct spoken messaging which is typical for rural areas. There are little-to-none other means of effective communication tools within the county.

General public activity

Jaunpils is known for its medieval castle which serves as an activity centre and tourism attraction at the regional scale. Regional and international tourism fills substantial part of local identity, strengthen community's self-esteem and provide a possibility for external income flow encouraging diversity of local services and businesses.

Local patriotism and general happiness

Tight horizontal ties are the most inherent characteristic of Jaunpils county's social structure. The quality of horizontal ties is distinguished by individual or group level of trust, cooperation, self-organisation practices, and civic engagement. It is important to side-track here for a moment explaining the low overall national self-organisation and social trust. People don't trust each other and they don't believe it is possible to change anything in existing situation, thus, it is safe to conclude that horizontal ties in Latvia are weak and undeveloped. There is a heavy impact of the Soviet regime in destroying social trust, breaking horizontal ties in a systematic manner, and demolishing any civic participation in governance processes. Jaunpils case of strong horizontal bondage can be explained by ethnic homogeneity and the deep historic role of family within the local processes. A new tradition of Local Community Forums (a systemic public involvement in municipal, self-governance and planning processes) runs successfully since 2004. Almost 5% of county's inhabitants (115 persons) participated in the Community forum in 2013. Voluntary communal work is a Latvian tradition that brought 150 persons to 15 locations during the largest communal work day in 2014.

4. Community emergence and territorial layout

The study shows the critical importance of municipal support and funding for maintaining level of social participation and NGO activity. The municipal practice is deemed as an enlightening example of fostering local social capital and should be shared among other regions as a good-practice case. Jaunpils inhabitants are more closely involved in all levels of decision-making and thus, are more convinced that their contribution is important and relevant to common well-being.

One of the research questions was addressing the issue of determining if social activities have a territorial signature. Do different regions correspond to different social activities in Latvia? It is of the utmost importance to understand historic administrative division and how the late territorial-administrative reform of 2009 has changed the organisational practices of the social habitation. The majority of social activities and NGO focus are concentrated to small number of large villages like Jaunpils, Leveste and Viesatas that coherently were the administrative centres of the Soviet farming cooperatives and, therefore, have inherited some infrastructure for maintaining the proper social life. In addition to that the old Soviet housing units, historically located along with main employment centres tag along the cohabitation and communication habits, similar interests and values of the previous workers villages. Quite many of these rather closely linked groups have reconfigured themselves as current housing management cooperatives.

From the standpoint of community emergence Jaunpils is characterised by 1) despite the short time elapsed since last territorial reform the community has managed to embrace the change and developed a new identity; 2) two previous administrative areas Jaunpils and Viesatas have socially bonded and merged; 3) villages as larger nuclei and farmsteads that take up their aerals. Jaunpils village stands out among others consisting of 3-4 separate historic communities.

Conclusions

1. Jaunpils county (*novads*) features high level of social, commercial and culture activity when compared to other municipal regions in Latvia. Despite its small size and low density of inhabitants Jaunpils demonstrates qualities of a high level of self-sufficiency and independence among territories of similar rural characteristics. The general trend of population decline is a causal factor for multitude of municipal challenges one of them being dwindling municipal budget. That being said it is even more important to efficiently invest public funds tackling issues which have the greatest potential of bringing the return on the investment. It is a conviction of authors that strengthening of social capital stands at the top of that investment list.
2. The social capital of research territory is the main stimulating factor of social activity, therefore, it is important to have the right tools to assess and analyse it in order to pick the most fitting actions for deciding the regional policy as well as strengthening the coordination of the local community life. Communities and their structure play the key role in determining local social capital.
3. Jaunpils county is characterised not only by strong social capital and high communal activity but also by different levels of territorial and regional community structure. The strong ties among two phenomena point towards diversity of community structure being a useful qualitative indicator in assessing the territories.

4. Horizontal ties and governance play highly important role in the case at hand – each of the individual factors constituting a social capital are intentionally maintained, freshly interconnected and fortified. Therefore, it is important to take into consideration the praxis of local governance when assessing social capital otherwise significant part of the evaluation is lost.

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REQUIRED EMPLOYEES' KNOWLEDGE AND SKILLS FROM THE EMPLOYERS PERSPECTIVE

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Abstract. An important pre-condition for successful operation and development of business are highly motivated and professional employees. The aim of the paper is to analyse the employee's knowledge and skills required by the employers. Methods used in the research are: analysis of scientific literature, survey of employers and survey of graduates of vocational education institutions of Kurzeme region, Jelgava city, Jelgava district, Ozolnieki county, Dobele district (the surveys were conducted in June 2013 – October 2013). Methods used for data analysis: descriptive statistics – indicators of central tendency or location and indicators of variability, analysis of variance, cross tabulations and factor analysis. Empirical research results showed that the employers' highly evaluated the following knowledge and skills: specific professional knowledge, ability for self-contained work, ability to plan work time, co-operation ability, initiative, and creativity.

Key words: qualified workforce, knowledge, required skills, education, attitudes.

JEL code: M53; D24

Introduction

An important pre-condition for a successful operation and development of business are highly motivated and professional employees. The needs of employers are changing fast following the changes in the economic conditions. The education system cannot prepare employees for the whole working life. Public administrations and employers are responsible for the improvement of knowledge and skills of the employees, and occasionally it is the responsibility of the employees themselves. The first step is to investigate the existing needs. Next steps should be the appropriate changes in initial and continuing vocational education and training, the changes in non-formal and informal education provision, and changes in the legislation and financing of education.

The above mentioned issues are being addressed by researchers worldwide, and the research

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results have been published in advanced scientific journals specially related to those issues, like *Journal of Workplace Learning*, *International Journal of Educational Development*, *Journal of Vocational Behaviour*, *Journal of European Industrial Training*, *Education + Training*, *Economics of Education Review*, and many others.

The aim of this paper is to analyse the employee's knowledge and skills required by employers. The methods used in the research are: analysis of scientific literature, survey of employers' and survey of graduates of vocational education and training institutions of Kurzeme region, Jelgava city, Jelgava district, Ozolnieki county, and Dobeles district. The surveys were conducted in June 2013 – October 2013. The evaluation scale 1-10 was applied for most of the questions in questionnaire, where 1 – not significant, 10 – very significant. The methods used for data analysis are: descriptive statistics – indicators of central tendency or location and indicators of variability, analysis of variance, cross tabulations as well as the method of multivariate statistical analysis – factor analysis.

Theoretical background

Researchers from Switzerland Simone N. Tuor and Uschi Beckes – Gellner have made a detailed research on risk – return and trade – offs regarding different educational pathways: vocational, academic and mixed types of educational pathways. They have found that choosing a mixed educational pathway is a useful strategy, indicating that the permeability of the national education system is a very important educational policy issue (Tuor&Beckes – Gellner, 2010). Young people's experiences of vocational education and training are an important issue for qualitative and skilled employees (Lawy, 2010). Researchers from Germany have raised the question: is vocational education and training in Europe an alternative to the European qualifications framework (ITB, 2009). Researchers from Australia have raised another important question – if the availability of vocational qualifications through work assisted social inclusion. As a result of the research they have come to the conclusion that work – based qualifications are a useful investment of public resources (Smith and Smith, 2011). International harmonization of training and qualifications in the manufacturing industry has gained wide international acceptance (Quintino, *et al.*, 2011). Analysis of policy failure in vocational education and training has been examined in greater detail in the context of the introduction of National Vocational Qualifications based on an individual competence at work (Williams, 1999) and competence – based training (Matlay& Addis, 2002) as well as through the role of higher education in supporting graduates early labour market careers (Pavil, 2014). Quality aspects in vocational education are evaluated in different ways, including application of different models (Cervai, *et al.*, 2013). Different countries have different experience and have used the findings of other countries, like Finland and Sweden (Lindell & Stenstöm, 2005), Germany (Schmidt, 2010), France (Béduvé&Giret, 2011), Israel (Neuman&Ziderman, 2003), South Africa (Allais, 2012), Ethiopia (Baraki&Kemenade, 2013), Uganda (Blaak, *et al.*, 2013), Cambodia (Cheng, 2010), also with regard to different fields of the national economy (Pema & Mehay, 2012). All these cases are good examples for the preparation of a skilled workforce.

The Triple Helix approach has frequently been used in higher education: University-Industry-Government Relations (Zawdie, G., 2010). The attention to innovations and to the links of employers with education tends to increase (Higher Education Council, Republic of Latvia, 2013). Investigation of the needs of the local industry, including small and medium size enterprises, is important for a successful development of the economy. Cooperation of local municipalities with education establishments and various enterprises should be investigated (Buligina, I. *et al.*, 2014). Researchers have indicated that a range of aspects have to be taken into consideration for decision making and in the training of a skilled labour force.

Research results and discussion

The survey of employers and the graduates of vocational education institutions of Kurzeme region, Jelgava city, Jelgava district, Ozolnieki district and Dobeles district were conducted from June 2013 to October 2013. The authors used the web survey, phone survey and written survey. A systematic sampling was applied in the survey to guarantee it is a random sampling. The company register LURSOFT was used for the selection of respondents for the employers' survey. All large and middle companies and every fifth of the small companies were selected. At first the respondents were called on the phone and invited to participate in the survey and fill in the questionnaire placed on a professional research company server. For the respondents who had difficulties to fill in the web survey form, the survey was implemented through a telephone interview. If the respondent did not fill in the questionnaire in one week, the respondents were called by phone once more and asked to do it; in total respondents were called three times. The response rate was 20%. For the survey of the graduates of vocational education institutions, all graduates were invited to participate in the survey (the representative from the vocational education institutions sent e-mails to their graduates and asked them to fill in the questionnaire placed on a professional research company server).

The evaluation scale 1 – 10 was applied for most of the questions, where 1 – not significant, 10 – very significant. For data analysis the following methods were used: descriptive statistics – indicators of central tendency or location and indicators of variability, analysis of variance, cross tabulations and factor analysis.

Factor analysis was used for identifying the key factors – skills and knowledge required from the employees and for determining the mutual statistical relations of these factors. As a result of the factor analysis the initial fifteen factors, through five iterations (by using the Varimax rotation with Kaiser Normalisation) are grouped in four complex factors (Table 1).

Table 1

Employers' evaluation on required employee's skills and knowledge
(Complex factor matrix after rotation)

Required skills and knowledge	Factors			
	F1	F2	F3	F4
Ability to plan and control (tasks and their execution)	0.914	0.078	-0.100	0.188
Co-operation ability	0.880	0.085	0.127	-0.124
Caring for the agenda and organization of work	0.862	0.042	-0.121	0.172
Purposefulness	0.749	0.118	0.317	-0.402
Ability to lead a team	0.608	0.458	0.111	0.358
Progress towards development, the ability to plan further education	0.603	0.452	0.289	0.116
Latvian language skills and knowledge	0.517	0.433	0.169	-0.107
Initiative - in addition to the actions to be taken in addition to an effort that required under the formal job responsibilities, in order to avoid problems in the labour process	0.489	0.292	0.300	-0.471
English language skills and knowledge	0.105	0.884	0.039	-0.160
Computer skills	0.073	0.768	-0.012	0.177
Other languages (excluding English and Russian) skills and knowledge	0.226	0.765	-0.113	0.131
Russian language skills and knowledge	0.256	0.758	0.271	-0.094
Initiative - in additional duties taking	0.267	0.269	0.755	-0.080
Professional knowledge	0.282	0.020	0.645	0.338
Driving skills	0.119	0.147	0.158	0.766
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 5 iterations.				

Source: author's calculations based on entrepreneurs survey conducted in June – October, 2013 (n=340), evaluation scale 1 – 10, where 1 – not significant; 10 – very significant

The interpretation of the identified complex factors will follow - regarding the indicators have relatively high burdens with the initial indicators:

1) Complex factor F1: purposefulness, ability to organise and work in team, desire to acquire new knowledge and skills, the factor has relatively high burdens on the following indicators: ability to plan and control, co-operation ability, caring for the agenda and organization of work, purposefulness, ability to lead a team, progress towards development, the ability to plan further education, the Latvian language skills and knowledge, initiative – preparedness to do more than required.

2) Complex factor F2: languages, and computer skills and knowledge, the factor has relatively high burdens on the following indicators: the English language skills and knowledge, computer skills, other languages (excluding English and Russian) skills and knowledge, the Russian language skills and knowledge.

3) Complex factor F3: professional knowledge and initiative - committing oneself to additional

tasks, the factor has relatively high burdens on the following indicators: initiative - preparedness to do more than required, professional knowledge.

4) Complex factor F4: driving skills, the factor consists of the initial indicator.

The employers evaluated employee's professional knowledge as being of major importance- (arithmetic mean – 8.9, median – 9, mode – 10), the evaluations were fairly homogenous (standard deviation– 1.2, range – 5). The second highest evaluated factor was the Latvian language skills and knowledge (arithmetic mean – 8.8, median – 10, mode – 10). However, these evaluations were not as homogenous as the evaluations of the factor 'professional knowledge (standard deviation – 2, range – 9). The statistical indicators of the evaluation of the required skills and knowledge of the employees are reflected in Table 2.

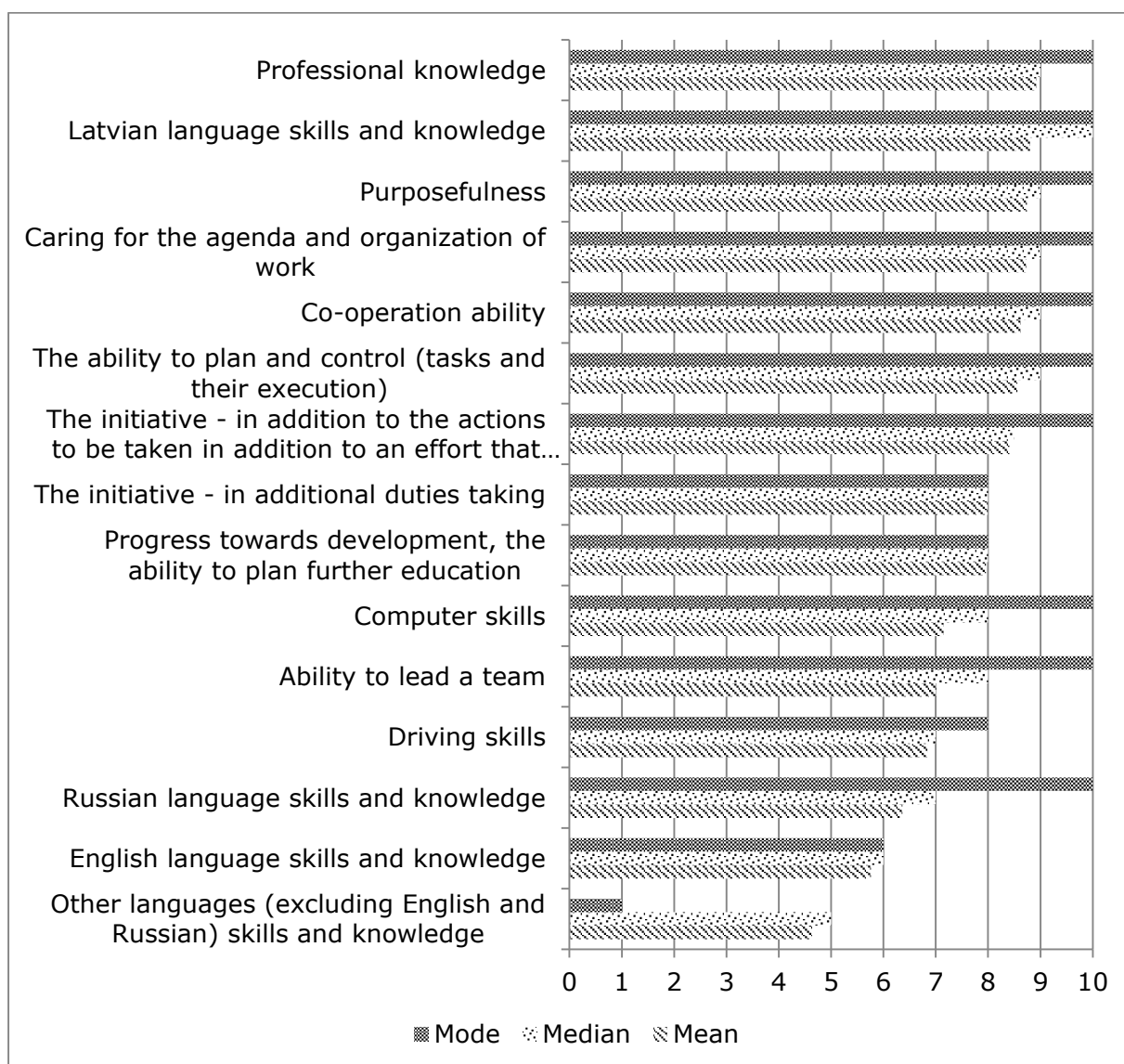
Table2

The employers' evaluations on the required skills and knowledge of employees, employers' evaluations

Required skills and knowledge	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
Latvian language skills and knowledge	8.8	10	10	2.0	1	10
English language skills	5.8	6	6	2.7	1	10
Russian language skills	6.4	7	10	2.8	1	10
Other languages (excluding English and Russian) skills	4.6	5	1	2.8	1	10
Computer skills	7.2	8	10	2.7	1	10
Driving skills	6.8	7	8	2.3	1	10
Initiative - in addition to the actions to be taken	8.4	8.5	10	1.5	5	10
Initiative - in additional duties taking	8.0	8	8	1.9	1	10
Purposefulness	8.7	9	10	1.2	5	10
Professional knowledge	8.9	9	10	1.2	5	10
Co-operation ability	8.6	9	10	1.6	2	10
Ability to plan and control (tasks and their execution)	8.6	9	10	1.8	1	10
Ability to lead a team	7.0	8	10	2.8	1	10
Caring for the agenda and organization of work	8.7	9	10	1.6	1	10
Progress towards development, the ability to plan further education	8.0	8	8	1.9	1	10

Source: author's calculations based on entrepreneurs survey conducted in June – October, 2013 (n=340), evaluation scale 1 – 10, where 1 – not significant; 10 – very significant

The average values of employers' evaluation on required employee's skills and knowledge are shown in Figure 1.



Source: author's construction based on entrepreneurs survey conducted in June – October, 2013 (n=340), evaluation scale 1 – 10, where 1 – not significant; 10 – very significant

Fig.1. Average values of employers' evaluation on required employee's skills and knowledge

It must be pointed out that the differences in the evaluations of the significance of the required employee's skills and knowledge by industry groups were statistically relevant with high probability proved by the result of the analysis of variance ($p < 0.002$). In the construction industry, employers highly evaluated the professional knowledge, initiative, ability to plan and control, ability to lead a team, the Latvian language skills and knowledge. In the transport and storage industry, employers highly evaluated the initiative, the Latvian language skills and knowledge, purposefulness. In the agriculture, forestry and fishing industry, employers highly evaluated the professional knowledge, the Latvian language skills and knowledge, co-operation ability. In the wholesale and retail trade, repair of motor vehicles and motorcycles industry, employers highly evaluated the Latvian language skills and knowledge, purposefulness, caring for the agenda and organization of work.

About 37% of employers pointed out that their company was in need or in the next three years will require new employees. The employers mentioned honesty was mentioned as a very significant factor when hiring new employees (arithmetic mean – 9.5, median – 10, mode – 10), sense of responsibility as another important factor (arithmetic mean – 9.3, median – 10, mode – 10) as well as desire and commitment to work (arithmetic mean – 9.3, median – 10, mode – 10). Developed intellect, reasoning and analysis and synthesis capabilities were also mentioned as significant factors (arithmetic mean – 9.3, median – 9, mode – 10) as well as communication skills (arithmetic mean – 9.3, median – 9, mode – 9). The evaluations of mentioned above factors were quite homogenous. The statistical indicators of evaluations on required skills and knowledge when hiring new employees are reflected in Table 3.

Table 3

Employers' evaluations on employee's skills and attitudes when hiring new employees

Employee's skills and attitudes	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
Appropriate work experience	7.3	8	8	2.1	1	10
Appropriate education and qualification	7.4	8	8	2.1	2	10
Sense of responsibility	9.3	10	10	1.2	5	10
Developed intellect, reasoning and analysis and synthesis capabilities	8.5	9	10	1.6	4	10
Appearance and social behaviour	6.6	7	8	2.2	1	10
Honesty	9.5	10	10	1.1	5	10
Expression skill	7.4	8	8	2.2	1	10
The overall impression of the overall adequacy of the post	7.7	8	8	2.0	1	10
Good reviews from people who trust	8.1	8	8	1.9	1	10
Motivation to work in the company and a vacant post	8.4	9	10	1.5	4	10
Communication and acumen	8.5	9	9	1.6	4	10
Desire to work in good faith	9.3	10	10	1.0	5	10

Source: author's calculations based on entrepreneurs survey conducted in June – October, 2013 (n=340), evaluation scale 1 – 10, where 1 – not significant; 10 – very significant

The graduates of vocational education institutions gave the highest evaluations to the following statement: the vocational education developed their ability (arithmetic mean – 7.3, median – 8, mode – 7), however, the evaluations were quite heterogeneous (standard deviation – 2.1, range – 9). The second highest evaluation was given to the statement that the vocational education sufficiently prepared the student for continuing his or her education (arithmetic mean – 7.2, median – 7, mode – 7), the third highest evaluation was given to the statement – the vocational education sufficiently prepared the student for work in the

profession (arithmetic mean – 7.0, median – 7, mode – 7), however, a surprisingly low average evaluations with a high variability of the evaluations was given to the statement regarding the competitiveness and prestige in the labour market (Table 4).

Table 4

Graduates of vocational education institutions evaluation on vocational education

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
Developed my ability	7.3	8	7	2.1	1	10
Competitive and prestigious in the labour market	6.7	7	9	2.3	1	10
Sufficiently prepared me to work in the profession	7.0	7	7	2.3	1	10
Sufficiently prepared me for continuing education	7.2	7	7	2.4	1	10

Source: author's construction based survey of graduates of vocational education institutions conducted in June – October, 2013 (n=109), evaluation scale 1 – 10, where 1 – don't agree; 10 – agree

Conclusions, proposals, recommendations

1. The needs of employers regarding employee's qualifications, knowledge, skills, and attitudes differ significantly. According to the research results gained in the research employers when hiring new employees, such general features as appearance and skills for expression were evaluated as the less important having the largest standard deviation. Also specific work experience and qualification were evaluated as not important but with large standard deviation. There are significant differences in the evaluations of the significance of the required employees' skills and knowledge by industry groups. The education system should gather information about the real needs of specific and general skills and knowledge to meet the very different needs of employers.
2. Such attitudes as honesty, desire to work with commitment and the sense of responsibility received the highest evaluations with the lowest standard deviation (all three ranked with mark 5 or more), also motivation (ranked with mark 4 or more). Intellect and acumen were evaluated slightly lower. The results confirm the outstanding significance of attitudes. Special attention must be paid to the creation of attitudes using education, culture, art and philosophy. Cooperation of the government with universities and with the whole education system is necessary to solve the task of the creation of attitudes.
3. The same tendencies regarding the evaluation of attitudes and general skills were identified in the inquiry of the graduates of vocational education institutions. The highest evaluations were given to the development of abilities and the preparation for continuing education. The analysis of the results of the employers' evaluation on required skills and knowledge of the already working employees indicates to the importance of the complex factor: professional knowledge and initiative taking additional tasks and duties. The complex factor F1 represents motivation and willingness to participate actively in the work. The complex factor F2 represents

different means of communication: foreign languages and computer skills. The standard deviations of the factors included in the complex factor F2 are rather high – the needs of the different means of communication differ significantly depending of the concrete enterprise. Most of the employers indicate that they do not need foreign languages, except for English and Russian. Nevertheless, many of them support foreign languages as an important positive factor. It has been indicated that also the need for computer skills will rapidly increase. The education system should create possibilities for employees to receive the necessary language skills and computer skills according to the individual needs. The complex factor F2 partly overlaps with the complex factor F1, since attitudes and means of communication are linked. The driving skills are useful for many employers but not for all, as represented by the complex factor F4. More investigations are necessary to find the right place in the education system for such universal, relatively simple skills. Some recommendations are prepared for the improvement of the education system in relation to the needs for a qualified workforce.

4. The education system should gather information about the real needs of specific and general skills of the employees.
5. Additional investigations could be useful to find in the education system the right the place for various universal relatively simple skills, similar to the driving skills.
6. Attention must be paid to the creation of attitudes using education, culture, art and philosophy.
7. Education system should create possibilities to offer the necessary language skills and computer skills according to the individual needs.
8. Measures should be implemented to improve the cooperation between employers, public administration, including local communities, and educators.

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FACTORS INFLUENCING LIVING STANDARDS IN THE EU

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Abstract. GDP per capita is often criticized for the fact that it does not reflect all the various determinants influencing living standards of inhabitants. In the paper presented, these 99 determinants, based on the evaluation of alternative indicators of living standards, are classified into eight main groups, i.e. public life, place of residence, economic area, educational area, health care, environment, interpersonal relations, and personality. The main source of data is the results of a questionnaire survey performed in 2013 and 2014 in the Czech Republic, Finland, France, Spain, and Great Britain, focusing on people's opinions regarding how much individual determinants influence their living standards. Using Principal Component Analysis made it possible to determine which of these 99 selected variables should be considered during a complex evaluation of living standards. It was determined that only 19 variables were of importance and that they could be merged into 8 factors. Furthermore, the material side of life is not prioritized to spiritual extension by respondents, which again brings us to the idea that GDP per capita is really not the right measurement for standard of living.

Key words: European Union, living standards indicators, standards of living, well being.

JEL code: I31, O15

Introduction

The issue of standard of living and its composition has, for many years, been engaged by many researchers, state authorities, institutions etc. Knowledge of the factors that should make up standard of living is significant not only for its measurement and subsequent comparison of a state's level of socio-economic development but also for the priorities of policy makers as well as understanding population satisfaction and its behavior. (Stávková et al., 2013; Gotowska and Jakubczak, 2013; Shumakova et al., 2014). On the basis of the many definitions of standard of living, there are a number of suggested approaches to measuring it. Currently, the most common approach is to measure the standard of living by real GDP per capita (Dorwick et al., 2003). Based on this criticism a number of alternative approaches has been created, such as Net Economic Welfare (Nordhaus and Tobin, 1972), Genuine Progress Index (Anielski, 2001), Human Development Index (UNDP, 2013), Better Life Index (OECD, 2013), Happy Planet Index, Actual Individual Consumption based on the Stiglitz-Sen-Gitoussi report, and many others (Stávková et al., 2013).

The way to measure living standards should be based on both objective and subjective sites. The main aim of this article is to find out which factors have influence on living standards according to inhabitants, and as such should be included in evaluation of living standards. The main source of data for the purposes of this paper are the results of the questionnaire survey performed in 2013 and 2014 in five countries of the European Union selected based on zones of cultural affinity. For each zone, one representative was selected, i.e. the Czech Republic, Finland, France, Spain, and Great Britain. The respondents assessed individual determinants using the 1–10 scale (1 – minimum, 10 – maximum) based on how important they considered them in terms of their living standards. In total, 99 determinants were assessed after being selected based on various indicators of living standards and welfare. The results were assessed using Principal Component Analysis (PCA). This multidimensional statistical method enables the reduction of the number of variables (called principal components) that describe the variability of all the variables and their mutual relations. The principal components are based on a linear combination of the original variables. For the purposes of this paper, the analysis was processed in the STATISTICA statistics software, ver. 12.

Research

Monitoring the living standards of people is quite a difficult and demanding task a number of major authors deal with. Living standards are affected by a number of factors and it is mainly through variables that these factors are monitored. The aim of this paper is to use one of the multidimensional methods – an analysis of the main components – to reduce these variables while trying to mark those of unquestionable significance.

Opinions on the living standards of people and how these people perceive the determinants affecting it were surveyed in 2 713 households in 5 European countries, i.e. 1 164 households in the Czech Republic, 311 in Finland, 473 in France, 584 in Spain, and 181 in Great Britain. The importance and significance of each factor were expressed by the respondents using a 10 - point scale. The set of data was perceived as a whole unit, as monitoring the differences among individual countries was not the main topic of this paper.

Of all the monitored variables, the ones of spiritual and emotional character were marked as the most important, i.e. relationships within the family, health of loved ones, feeling of love, and the balance of work and leisure time. These are followed by variables such as safety and protection, health of the individual, and air quality, and then by factors of a material character (income, prices of food, housing etc.). At the very end of the significance scale are factors related to the activities of political and executive representation.

In order to resolve the issue related to measuring the living standards of people, choosing the most suitable factors, and to the decision on the suitability of the indicators for their quantification, the authors used the results of a questionnaire survey processed using an analysis of the main components. From the correlation matrix of variables, the authors specified numbers (factors), range of variability explained by each main component, and a

cumulative share of variability. Based on the Kaiser Criterion (Eigenvalue must be higher than 1) and through the use of the scree plot, the number of variables was reduced to 19.

Table 1

Total Variance Explained

Eigenvalues (Factors) Extraction: Principal Components				
Component	Eigenvalues	% of Variance	Cumulative (Eigenvalue)	Cumulative (%)
1	26.162	26.426	26.162	26.426
2	6.856	6.925	33.017	33.351
3	4.988	5.039	38.006	38.390
4	3.770	3.808	41.775	42.197
5	3.251	3.284	45.026	45.481
6	2.634	2.661	47.661	48.142
7	2.464	2.489	50.124	50.631
8	2.246	2.268	52.370	52.899
9	1.854	1.873	54.224	54.772
10	1.801	1.819	56.026	56.592
11	1.643	1.660	57.669	58.251
12	1.585	1.601	59.254	59.852
13	1.479	1.494	60.733	61.346
14	1.361	1.375	62.094	62.721
15	1.226	1.238	63.319	63.959
16	1.217	1.229	64.536	65.188
17	1.122	1.133	65.659	66.322
18	1.099	1.110	66.757	67.432
19	1.069	1.080	67.827	68.512

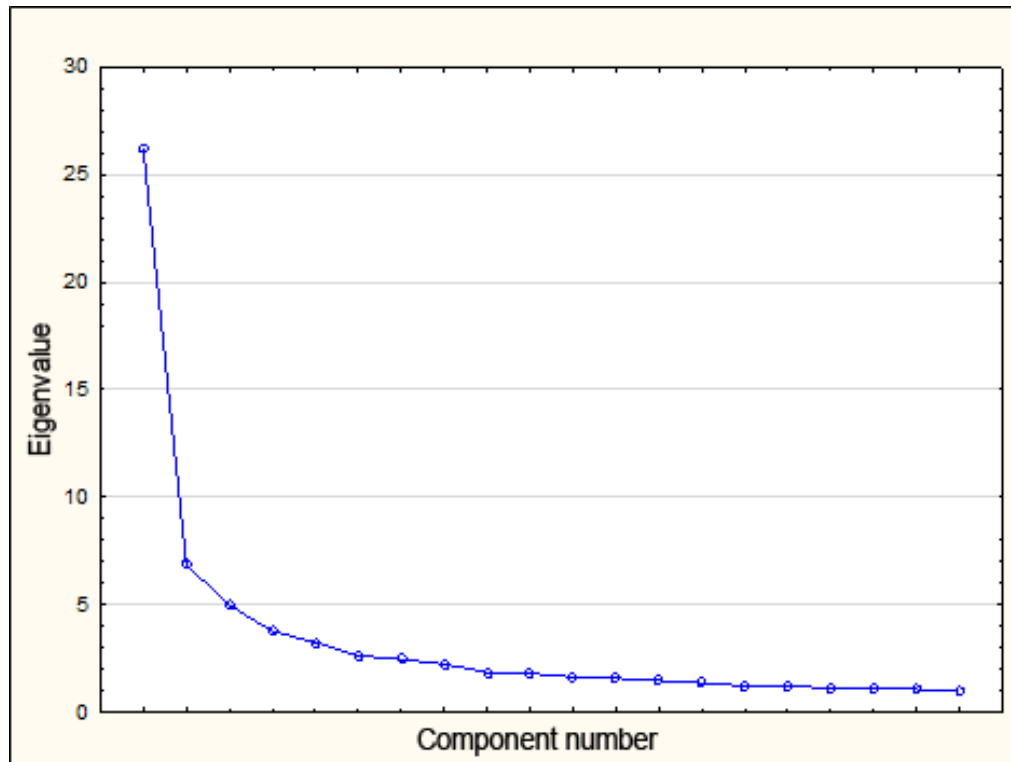


Fig. 1. **Scree plot**

By rotating the factors, the authors were able to specify the variables for the common factors:

Factor 1 – contains variables related to the quality of air and water, amount of green vegetation, level of noise etc.; thus, it is called technical quality of life;

Factor 2 – includes the variables related to education and its form, quality, and length, including other leisure time activities; thus, it is called a factor of educational activities;

Factor 3 – this factor is called quality of public life, as it contains activities related to political parties and movements, state administration, and justice;

Factor 4 – the factor of public services; it includes the availability of shops, services, sports facilities, cultural activities, and other leisure time activities;

Factor 5 – called the health factor; it includes variables related not only to the availability but also the quality of medical services and materials and their financial demands;

Factor 6 – this factor contains a number of variables related to the quality and price of food and food products and the quality and price of services; thus, it is called the commercial factor;

Factor 7 – factor of the above-standard; it contains dispensable variables, such as foreign products and services, inheritance etc.;

Factor 8 – a factor of spiritual extension; it contains variables expressing the general level of satisfaction, feeling of security, love, recognition, and self-realization.

Conclusions

1. Interestingly enough, the results of the survey show that the respondents significantly prefer placing the factor of spiritual extension into the category of living standards, which contains variables such as the feeling of security, love, and human relations. This may be considered to influence the shape of Maslow's hierarchy. The variables of material character are not that significant even though society is called material. Besides, the results contribute to more intense questioning of the most frequently used indicator of the living standard, i.e. GDP per capita.
2. The least significant factor is that of quality of public life; this shows the lack of interest by people and reflects their dissatisfaction with the political situation and activities of the politicians.
3. The results of the analysis of the main components made it possible to reduce the considered number of 99 variables expressing living standards and quality of life to 19 merged into 8 factors, while concretizing measurable variables for the factors that include all the areas of lives of people. Their general variability represents almost 70% of overall variability, and given the character and number of the variables this result may be considered sufficient.
4. The authors verbally named the 8 established factors - technical quality of life, educational quality of life, quality of public life, public services, health factor, commercial factor, factor of the above-standard, and spiritual extension. All these factors were specified based on the various people's opinion, which is, in fact, the most significant point as they know the best what does and what does not have influence on their living standards. However, these results should be combined with an objective way as well, which is the next step of the authors' research activities.

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DISTRIBUTION OF ECONOMIC OPPORTUNITIES OF RESIDENTS

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Abstract. Economic independence is a compulsory condition in order to make it possible for residents to control their life, to make the certain decisions and implement them. Rapid globalization processes and changing economic conditions provide Lithuanian residents not only with new opportunities, but also with a number of negative challenges. This leads to the need to analyze and evaluate the distribution of economic opportunities of residents. The paper aims to evaluate the distribution of economic opportunities among Lithuanian population by counties based on the integrated indicator. The following tasks were set in order to reach the aim of the research: 1. To explore influencing factors to economic opportunities of residents. 2. Grounding on the completed integrated indicator to assess economic opportunities of residents in Lithuania by counties. Study results suggest that economic opportunities of residents depend on education, gender, employment opportunities, wage differentiation, etc. Occupancy is a very important factor, which ensures economic independence of individuals. Statistical data analysis shows that the differentiation of economic opportunities of residents is formed on the regional level: in different counties, cities and villages, rural residents have uneven opportunities. The calculated integrated indicator has shown that the best situation belongs to Vilnius County (1st place) and the worst situation considering the integrated indicator belongs to Marijampolė County (10th place). The value of the integrated indicator of Marijampolė County is even 88.6% lower as compared to the corresponding indicator of Vilnius County.

Key words: economic opportunities, labour market segmentation, employment, Lithuania.

JEL code: J42, O12, R10.

Introduction

The rapidly changing pace of life is constantly changing economic and social conditions; therefore, modern society has to deal with a variety of challenges. All these and other changes largely depend on new opportunities for individuals in the allocation of economic resources. Theoretically free market system provides all citizens with an opportunity to seek for economic independence. However, it happens differently in a real life.

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A very significant factor, securing individuals' economic opportunities in the society, is employment. The employment differs in versatile labour market segments. Therefore scientists were always interested in the labour market and the processes taking place therein, because the labour market is not perfect. It is distinguished for exclusivity, sophisticated morphological content and complicated mechanism of functioning, whereas labour market segmentation is one of the factors affecting the distribution of different individuals in the labour market (Hoffman, 1986; Kaufman, 1986; Bosworth, Dawkins, Stromback, 1996; Leontaridi, 1998; Matiušaitytė, 2005; Martinkus, Beržinskienė, 2005; Jacobsen, 2007; Martinkus, Stoškus, Beržinskienė, 2009; Blau, Ferber, Winkler, 2010; etc.). The situation of residents at different segments of the labour market differs; therefore, it is necessary to analyze occupancy changes, salary change tendencies, etc.

The object of the research: distribution of economic opportunities of residents.

The objective of the research: to evaluate the distribution of economic opportunities among Lithuanian population by counties based on the integrated indicator.

The following tasks were set in order to reach the goal of the research:

1. To explore influencing factors to economic opportunities of residents.
2. Grounding on the completed integrated indicator to assess economic opportunities of residents in Lithuania by counties.

Research methods: the analysis of scientific literature, synthesis, comparison, summary, time series, correlative analyses, Min-Max indexes, and mean indexes.

Research results and discussion

1. Factors determining economic opportunities of residents

The most important decisions in human life are related to work, because people spend the majority of their life time at work. The decision on when to start working, on how much to spend at work and on the field of work, is very important for each person, who determines different economic opportunities of individuals.

The opportunities of economic independence at different life stages are different and depend on age, education, lifestyle, occupational ambitions, etc. It has been emphasized recently that education is one of the most important factors for the development of modern knowledge economy, whereas not only educated person, but also the society benefits. Gižienė, Simanavičienė (2012) argue that the history of human development confirms the relationship between education and economic development levels. Successful economic development increasingly depends on the amount of investments in people, intellectual potential and development.

In the life of an individual, education is important, because, according to Gižienė and Simanavičienė (2012), education and qualification of an individual are of key importance to the

quality of his/her work and career opportunities. The choice of the occupation and qualification development determines the differences in salary among the employees: persons with the highest education can usually expect to receive a better salary. Moreover, Beržinskienė and Raziulytė (2013) emphasize that scientific research has determined that during the economic decline in the Baltic States, the difference in salary between people with higher education and those who do not have it has increased (from 51% to 67%).

Salary is one more indicator determining the economic well-being of an individual. Salary is differentiated, having evaluated the qualification of an employee, his/her education, work skills, personal qualities, etc. In the labour market, according to Beržinskienė and Raziulytė (2013), wage differentiation is shaped on the regional level first.

Employment is a significant factor securing individuals economic opportunities. According to Martinkus, Beržinskienė (2005), certain situations are developed in the labour market mechanism limiting full employment opportunities. The functioning of the labour market is determined by the interaction between various market segments and sectors that are different in regional, demographic, social, professional, qualification and other aspects. It should be noted that the labour market, which is under the influence of social and political forces, is split into separate segments (partial labour markets), which function and adjust to the environmental changes separately (Martinkus, Stoškus, Beržinskienė, 2009).

Jakštienė, Beržinskienė (2011) distinguish the following ten labour market segmentation groups: economic, social, demographical, and geographical segmentation; segmentation by professional level, by workplaces, by individuals' behaviour in the labour market, psychological/psychographic segmentation, vertical segmentation, and horizontal segmentation. Labour market segmentation is the division of the labour market to individual market segments or parts, which are distinguished for certain characteristics of the segment. However, the labour market segment is a defined group of participants of the labour market, which is characterised by certain features typical to that group.

It can be said in summary that emphasizing distribution of economic opportunities of residents, special attention is often paid to the events in the labour market. Labour market has certain characteristics which distinguish it from other markets: it has a sophisticated morphological content and functions under different economic conditions. The formation of segments in today's labour market is determined by a number of factors (economic, social, demographic, etc.). Due to the fragmentation of the labour market, there are separate labour markets; therefore, the opportunities for economic independence of individuals differ.

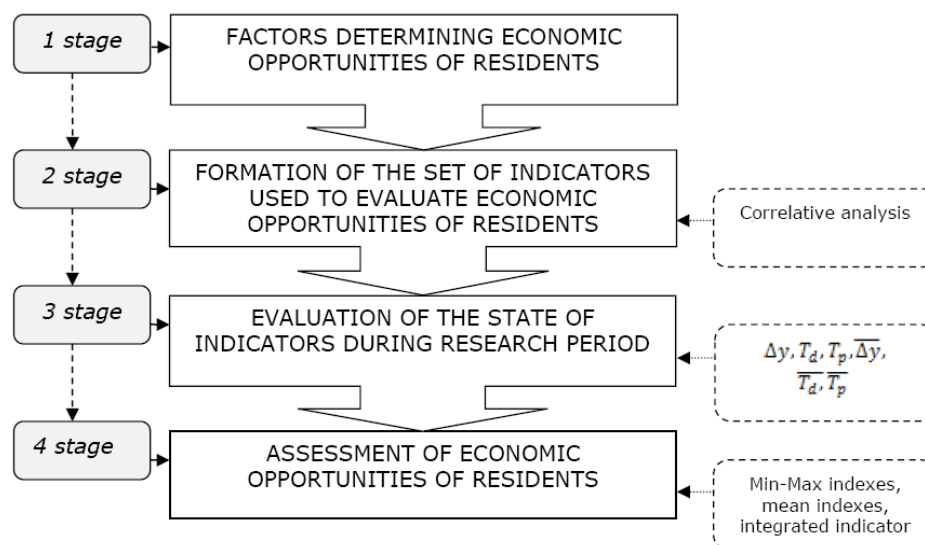
2. The methodology for the assessment of economic opportunities of residents

In order to assess economic opportunities of residents, territorial units are defined first. Counties are the main territorial units, which are compared by selected indicators. In addition, certain data is also analyzed by the place of residence (city and village). While selecting indicators to be analyzed, evaluated and grouped by counties, a correlation analysis was

carried out, i.e. the interdependence of indicators was calculated, on the basis of which statistically less dependent indicators were distinguished. The calculated correlation coefficients and p values show a strong relationship between some indicators; therefore, the final set of evaluation indicators used to assess economic opportunities of residents includes the least correlating indicators. The final set includes the following indicators:

- The ratio of residents with high and secondary education, *in percent* (e_1).
- Occupancy level of persons aged 15-64, *in percent* (e_2).
- The average monthly gross salary, *EUR* (e_3).

The data of Statistics Lithuania and EUROSTAT was used for the analysis of the distribution of economic opportunities. The evaluation of economic opportunities of residents covers four stages (Fig. 1).



Source: author's construction

Fig. 1. Evaluation stages of economic opportunities of residents

As seen in Fig. 1, having selected evaluative indicators of economic opportunities of residents, economic opportunities of residents can be evaluated and the situation in different areas can be compared. When evaluating the condition of the phenomenon during the analyzed period, the time series is analyzed; the analytical and the average change indicators of the time series are also calculated (Bartosevičienė, 2011; Cortinhas, Black, 2012): the absolute dynamic increase or decrease in level (Δy), the rate of the increase/decrease (changes) (T_d), the rate of dynamic increase/decrease (changes) (T_p), the average absolute change ($\overline{\Delta y}$), the average rate of increase/decrease (changes) ($\overline{T_d}$), the average rate of dynamic changes (increase/decrease) ($\overline{T_p}$).

There are two methods used to evaluate economic opportunities of residents: Min-Max method and Mean method. The Min-Max index is calculated first. It is used to evaluate the situation of the territorial unit comparing it to the territorial units reflecting the worst and the

best situation. The actual value of the indicator is a specific value of a certain indicator of a particular territorial unit. The value of the territorial unit having the lowest indicator is closer to 0, and the one having the highest indicator is closer to 1. Index values of the rest of the territorial units are located in the interval (0;1). The Min-Man index is calculated according to the following formula (Misiūnas, Svetikas, 2003):

$$I_{ij}(t) = \frac{x_{ij}(t) - \min_i(x_{ij})}{\max_i(x_{ij}) - \min_i(x_{ij})} \quad (1)$$

Where $\min(x_{ij})$ and $\max(x_{ij})$ are the minimum and the maximum values of the indicator j (according to all territorial units), x_{ij} – value of indicator j of the territorial unit i .

The index for each territorial unit is calculated in respect of each indicator (Misiūnas, Svetikas, 2003):

$$I_{ij}(t) = \frac{x_{ij}(t)}{x_{Resp.j}(t)} \quad (2)$$

Where $x_{ij}(t)$ – value of the indicator j of the territorial unit i during the period of time t ; $x_{Resp.j}(t)$ – the average value of the indicator j of the entire country during the period of time t .

Having calculated the values of the indices by this method, the territorial unit the value of which is equal to the average of all territorial units or to the value of the entire country, has the index value of 1. Territorial units the values of which are below the average will depend to the interval (0;1), and the territorial units the value of which are better than the average based on the indicator analyzed, will have the index value >1 .

The formula of the integrated indicator is as following:

$$I_{EGP} = \sum_{j=1}^j r_j \cdot I_{ij}(t) \quad (3)$$

Where r_j – the weight (significance) of the indicator j ; $I_{ij}(t)$ – the Min-Max index.

3. Evaluation of economic opportunities of residents

The most important factor of the development of any region, according to Kuliešis and Pareigienė (2011), is human capital, and the measure of its competitiveness is the ability to attract human resources. However, during the analysis one of the aspects of human capital, namely the changes of the residents in the region, it can be noticed that the number of residents has been constantly decreasing in the entire territory of Lithuania, except the capital Vilnius. According to Statistics Lithuania, at the beginning of 2013, there were 2971.9 thousand of permanent residents living in Lithuania, i.e., 31.7 thousand residents less than at the beginning of 2012. A quarter of residents lived in Vilnius County and one-fifth lived in Kaunas County. In terms of population, the smallest counties are those of Tauragė, Utena, Telšiai, Alytus and Marijampolė. There were from 3.6 to 5.3 % of residents of the country residing in them (Statistics Lithuania, 2013).

There are many educated people living in Lithuania. At the beginning of the academic year of 2012–2013, there were 587 thousand students or pupils or every fifth resident studying in Lithuania (Statistics Lithuania, 2013). However, during the analysis of the situation in separate counties, it can be noted that in 2010, the number of persons in the 25–64 age group with higher education has changed in Klaipėda and Utena counties, as compared to 2009: in Klaipėda County, it increased by 10.0%, and in Utena County, on the contrary, it decreased by even 15.8%. In 2013, as compared to 2012, the number of people with higher education in 25–64 age group has increased in Marijampolė County (23.9%) and Telšiai County (21.4%) and decreased in Tauragė County (16.0%).

During the analysis of the differences between the residents of rural areas and towns, it can be noted that residents from rural areas tend to have lower education. Even though certain rural areas (e.g. municipalities of Visaginas and Birštonas, Kaunas district) can be proud of considerable number of residents with higher education, in most of the rural areas, the ratio of residents with higher and secondary education is relatively low (e.g. in municipalities of Pagėgiai and Kalvarija, districts of Pasvalys, Skuodas and Pakruojis, the ratio of residents with higher and secondary education varies from 36.3% to 49.6%). This suggests that for the residents of rural areas, it is more difficult to integrate themselves into the labour market because employment is closely related to education, which is an important factor in order to ensure economic independence of individuals.

One of the most important purposes of all countries is to increase resident employment in the country in order to ensure the reduction of unemployment. Changes during the recent years show that the European Employment Strategy paved the way for the European Union to make progress fighting unemployment and creating more and better workplaces. According to the Results of the 2011 Population and Housing Census of the Republic of Lithuania (2013), there were 1 million 175 thousand persons working in the country. In 2011, there were 454 employed persons per 1000 population aged 15 and older. Urban employed persons made up 73.4%, rural – 26.6% of the total employed population. Men made up 47.5%, women – 52.5% of the total employed population. Such differences in employment could be determined by the decrease in the number of working men in the construction sites, industrial companies, i.e. in those sectors, which are frequently populated by men. Male and female employment rates in different age groups were different. The male employment rate was the highest in the age group of 30–34 (72.4%), the female one – in the age group of 40–44 (75.9%).

Analyzing general dynamics of employment level in Lithuania in 2009–2013, uneven change of this indicator is clearly visible: in 2010, as compared to 2009, the level of employment has dropped by 2.3 percentage points, but in 2013, the general level of employment reached 63.7% and comparing with 2011, has increased by 1.7 percentage points. The analysis of statistical data shows that the employment rate in different counties of Lithuania has been changing unevenly: in 2010–2013, the average level of employment raised every year in Klaipėda County (4.6%), Vilnius County (4.6%) and Kaunas County (4.5%). The level of

employment changed during the analyzed period very insignificantly in Marijampolė and Alytus counties: during the period of 2010–2013, it increased every year by the average of 1.6% and 1.7%, respectively. This situation could have been influenced by a small number of work positions, the lack of labour market measures designated to reduce the unemployment and/or the inefficiency thereof, etc.

According to the data of Statistics Lithuania (2014), gross wages that have been decreasing since 2010 in the state economy, have started to grow in all areas since 2011. Most of the positive changes were noticed in 2013, when the average gross monthly wages in the entire state economy including the individual companies exceeded the level of 2012 (5.1% or EUR 3.2) and constituted EUR 646.3 (Table 1).

Table 1

The average gross monthly wages in Lithuania counties, EUR

Territory	2009	2010	2011	2012	2013	Min- Max indexes	Mean indexes
						2013	
Vilnius County	675,4	659,9	677,2	703,8	732,9	1	1,1340
Lithuania	595,5	575,8	592,5	615,1	646,3		1
Klaipėda County	595,3	576	586	603,8	628,7	0,5387	0,9728
Kaunas County	571,7	547,8	568,9	589,3	623,8	0,5170	0,9652
Telšiai County	541,3	517,5	533,9	548,4	582,5	0,3342	0,9013
Utena County	541,2	505,3	515,8	530,4	560	0,2346	0,8665
Alytus County	508,6	490,1	504,4	521	556,5	0,2191	0,8611
Panevėžys County	513,1	491,6	511,6	528,6	555,9	0,2165	0,8601
Siauliai County	500,9	483,3	493,8	506,3	537,2	0,1337	0,8312
Marijampolės County	478,2	470	480,5	499,8	532,4	0,1124	0,8238
Tauragė County	467,7	455,5	464,3	480,6	507	0	0,7845

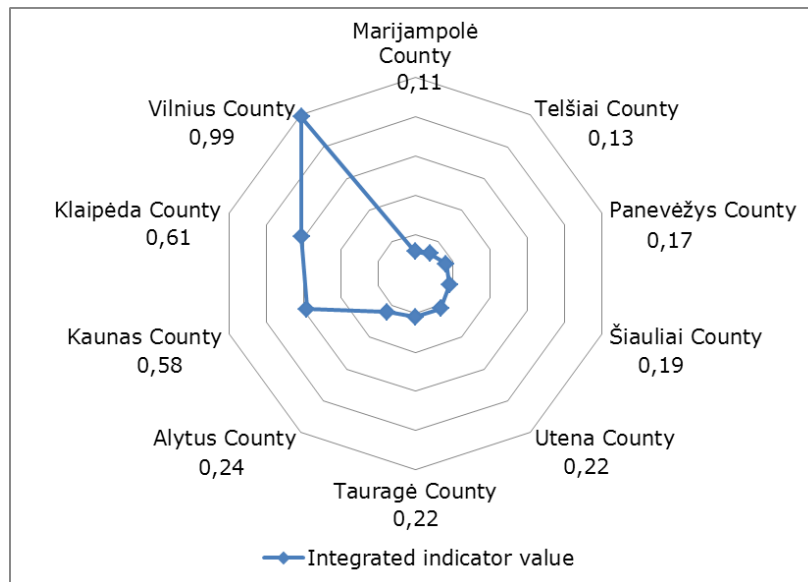
Source: author's calculations based on Statistics Lithuania, 2014.

Min-Max indices calculated (Table 1) in 2013 show that the highest gross monthly wages in 2013 were in Vilnius County (EUR 732.9) and the lowest gross wages were received by the employees of Tauragė County (EUR 507.0). The gap in wages between these counties consisted EUR 225.9. Only in one county, namely Vilnius County, the average gross wages during the analyzed period were higher than the national average. Statistical data analysis shows that during the period from 2009 to 2013, gross monthly wages were increasing by 2.1%. The average increase in gross monthly wages during the analyzed period was highest in Marijampolė County (2.7%), and the lowest in Utena County (0.9%). According to Tamašauskienė, Šileika and Mačiulytė (2008), regional differences are determined by regional economic development and expansion, conditions of the labour market, legislation, the activity of the trade union, determination of the minimum wages, efficiency.

For most of the Lithuanian residents, salary is the main source of livelihood; therefore, its size is very important. According to the Results of the 2011 Population and Housing Census of the Republic of Lithuania (2013), a salary was indicated as the main source of livelihood by 35.9% of the population. A big part (27.5%) of the population indicated that they were

supported by the family and/or other persons. The main sources of livelihood differed for the urban and rural population. The main source of livelihood for the urban population was a salary (40.1% of the total urban population), while rural population most often indicated that they were supported by the family and/or other persons (28.9% of the total rural population).

Concluding on the distribution of economic activities among Lithuanian residents in respect of territorial aspect, the integrated indicator (I_{EGP}) has been calculated. It shows that the best situation in terms of economic opportunities of residents is found in Vilnius County (Fig. 2).



Source: author's calculations.

Fig. 2. **Distribution of Lithuanian counties based on the evaluation of economic opportunities of residents**

The situation in Klaipėda County is better than the one in Kaunas County (Fig. 2): it is in the second position, and the value of the indicator is 4.7% higher than the value of the integrated indicator of Kaunas County. The worst situation, based on the integrated indicator of economic opportunities, is taken by Marijampolė County (10th place) (Table 2).

Table 2

Lithuanian counties based on distribution of economic opportunities of residents

Territory	Rank e_1	Rank e_2	Rank e_3	Rank I_{EGP}
Vilnius County	4	5	7	1
Klaipėda County	2	3	3	2
Kaunas County	3	2	2	3
Alytus County	8	8	9	4
Tauragė County	7	9	6	5
Utena County	6	6	8	6
Šiauliai County	10	4	10	7
Panevėžys County	9	10	4	8
Telšiai County	5	7	5	9
Marijampolė County	1	1	1	10

Source: author's construction.

The value of the integrated indicator of Marijampolė County is even 88.6% lower as compared to the corresponding indicator of Vilnius County. Economic indicators of Telšiai, Panevėžys and Šiauliai counties are also quite poor: they take places 9, 8 and 7, respectively (Table 2). Moreover, even in seven out of ten districts the value of the indicator ranges from 0.11 to 0.24. It shows that in most of the Lithuanian counties, the economic opportunities of the residents are limited, thus, paving the way for economic and social problems. It is noticeable that employment in such areas is worse, the wages received by the employees are lower, residents are pushed to the outskirts of the society and sustainable development of regions is limited.

Conclusions

1. Economic opportunities of residents depend on the level of education, sex, working conditions, employment opportunities and wages. The differentiation of distribution of economic opportunities among residents is formed on the regional level: in different counties, cities and villages, rural residents have uneven opportunities to pursue economic independence.
2. Economic opportunities of residents are evaluated based on the three indicators selected (the ration of residents with higher and secondary education, %; level of employment of persons in the 25–64 age group; average gross monthly wages, EUR) and comparing the situation in different counties. The calculated integrated indicator has shown that the best situation in terms of economic opportunities belongs to Vilnius County (1st place) and the worst situation considering the integrated indicator of distribution of economic opportunities belongs to Marijampolė County (10th place). The value of the integrated indicator of Marijampolė County is even 88.6% lower as compared to the corresponding indicator of Vilnius County.
3. Economic opportunities of Lithuanian residents are limited, because the value of the calculated integrated indicator even in seven out of ten districts is very low, ranging from 0.11 to 0.24. Such situation can be partially determined by a small number of jobs, the lack or insufficient amount of work market measures designated to reduce unemployment and/or the insufficiency thereof, poor employment opportunities, low wages and/or other problems.

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HUMAN DEVELOPMENT UNDER KNOWLEDGE ECONOMY CIRCUMSTANCES: CASE OF THE BALTIC STATES' RURAL AREAS

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Abstract. Human development (HD) is in the agenda of many developing and developed countries. HD is topical for countries that are on the transition way to the knowledge economy. Knowledge economy presumes high HD and development of the human capital potential; thus, people from developing countries that strive for knowledge-based economy tend to have higher education and be the white-collar workers usually in urban areas.

Several issues on rural areas can be connected to low human and education development there, i.e. emigration of rural population, problems of young people Not in Education, Employment, or Training (NEETs), stagnation in rural development and lack of specialists demanded in rural areas etc. The aim of this research is to evaluate role of education in HD in terms of knowledge economy transition in rural areas of the Baltic States for the last years based on available data. The authors review topical scientific literature, interpret Knowledge Index, Knowledge Economy Index and HD Index, data on education. In addition, the authors have observed and interpreted statistical data on rural and urban population, its employment. It can be concluded that Estonia and Lithuania have greater potential for successful transition to a knowledge-based economy. In the rural employment and development context, it is important to form a shared system between the rural plans and strategies and educational institutions. The hypothesis to test in further studies is - education as a HD's element has a high influence on rural development in general.

Key words: Human Development, Knowledge-Based Economy, Knowledge Assessment Methodology, Rural Development.

JEL code: O15, D83

Introduction

Developing countries are on the transition way to a knowledge-based economy. One of the knowledge-economy aspects is education that is under the Human Development (HD) observation. The Baltic States' population education level, circumstances and attainability is a motive for young people's migration from rural to urban areas. One of the issues of this phenomenon is a risk of deficit of rural profession specialists. Lack of local rural specialists can be a cause for a series of other different issues connected with rural regions' development i.e.

that might be a reason of the development's slow tempos. Therefore, it is important to explore the situation deeper to develop new hypotheses that propose effective solutions.

The aim of the research is to evaluate education's role in Human Development in terms of transition process to a knowledge economy in the Baltic States for the last years based on available data focusing on rural areas of the countries. The main tasks of the research are to explore theoretical background on the topic and HD education's path mainly from statistical data perspective on the Baltic States example for the last years. The authors also set as a task to briefly explore the situation of the HD from the education and employment perspectives in the rural territories of the Baltic States.

The theoretical framework of the research helps in the definition of main terms (HD and knowledge-based economy); appropriate HD indexes (HDI) and explore possibilities, advantages and disadvantages of the existing knowledge assessment methodology (KAM). The authors also provide conclusions of previous studies on other European countries' young educated labour force migration from rural to urban territories.

The authors also interpret Knowledge Index, Knowledge Economy Index and HD Index data connected with education. In addition, the authors have observed and interpreted the statistical data on rural and urban population, its migration and employment.

Agriculture and rural regions' development might be stagnated by several external environment factors. One of them is connected to the youngest generation striving for the education and knowledge that they can mostly receive in the country's largest cities. However, there are regions in the Baltic States, where the proportion of young people from the population is high; however, they are NEETs (young people, who are *Not in Education, Employment, or Training*). This problem is under the attention of the governments and European Institutions as well as the International Labour Organisation (Eurofound, 2012).

In 2014, the rural population's proportion out of the total country's population was 32.4% in Estonia, 32.6% in Latvia and 33.5% in Lithuania. Since 2005, these indicators have increased in each country, i.e. up to 0.1% in Lithuania, up to 0.6% in Latvia and up to 1.1% in Estonia (The World Bank, 2014); however, it is important to make the correct conclusions. Most probably, it does not mean that people prefer to live in the rural areas now. It is more likely that nine years ago natural population growth was better in the rural areas than in urban. The increase can be connected with slight development of the rural areas or emigration of urban population, or any other reason.

The authors apply exploratory research design. The main research methods applied are literature review, synthesis, secondary data interpretation, comparison.

Concerning rural development, this study observes a new path from the human development perspective. Human development is a core element for developing any territory. Focus on territorial development means investment in the development of its inhabitants.

Information sources used within the research are scientific journals' articles, official statistics and governmental or institutional reports on the topic.

The research topic is a subject to some limitations. For the theoretical background exploration, the authors chose the most recent published sources as well as those that present origin of the observed topics. The authors observe only one component of the HD (education) and Knowledge economy pillar (Education and Training). Statistical data evaluable for all three countries do not represent the situation for the last years. To compare the situation in all three countries the authors took the last available data from each country. Some KAM data provided are for 2009, the year economic crisis began in the Baltic States; thus, it is impossible to make any adequate conclusions based on the data or indexes.

Research results and discussion

Rural population in the Baltic States

Human Development is connected to human education, i.e. intellectual development that means that one of the goals of the HD is to develop human capital. "Human capital is important for economic development" (Fratesi U., 2014) as educated people bring a value to the economy of the country. The more educated people a country has, the more developed its economy is. Economy in the Baltic States, however, is mostly urban based, i.e. in the Baltic States Gross Domestic Product's (GDP) structure; agriculture has the smallest weight and is less than 5 per cent (Table 1).

Table 1

Baltic States GDP - Composition, by Sector of Origin in 2013 (estimated), %

Sector	Estonia	Latvia	Lithuania
Agriculture	3.90	4.90	3.70
Industry	30.00	25.70	28.30
Services	66.20	69.40	68.00

Source: The World Factbook, 2013

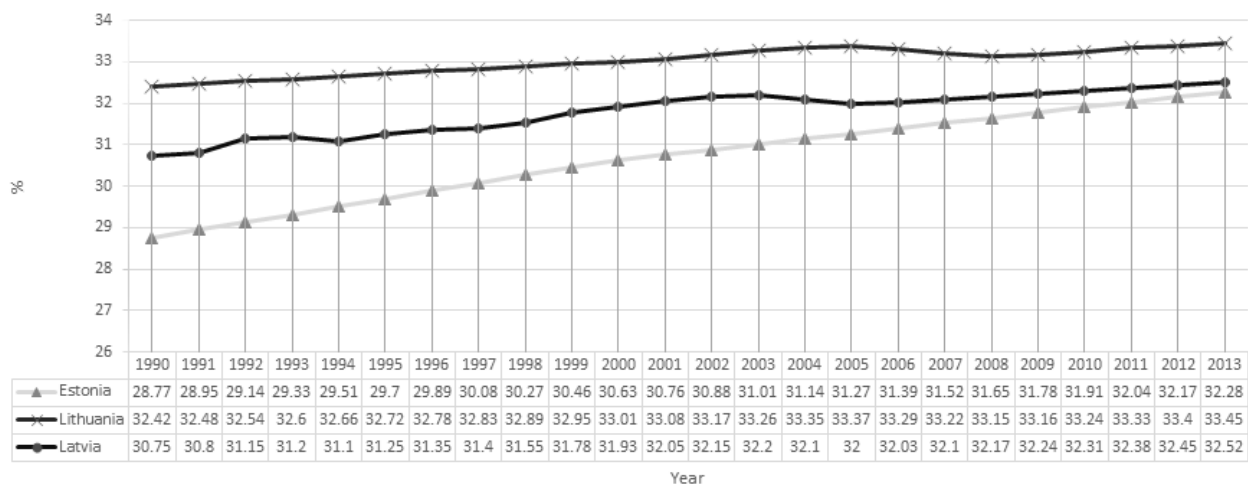
In terms of employment, the data shows that rural areas provide jobs. Most probably, they are too specific and not that various as on the urban areas labour market. Since 2005 to 2012, employment in agriculture is up to 5.20% of total employment in Estonia. Employment in agriculture in Latvia and Lithuania has decreased during one year for 2.00% in Latvia and for 2.50% in Lithuania since 2007 to 2008, the year of economic crisis start. Since that time until 2012, it has increased by 1.00% in case of Lithuania and for 0.50% in case of Latvia. However, generally Latvia and Lithuania employ biggest range of specialists in agriculture as of the total employed people in the countries than Estonia (The World Bank, 2014a).

It could illustrate the tendency of the labour market after the crisis. The economies of the Baltic States especially Latvian and Lithuanian become more concentrated on the service and

industrial sector and knowledge-based economy in general. Development of the rural areas in terms of economy might be less attractive now as it has the smallest share in the economy.

People, who live in the rural areas in the Baltic States, might also tend to be more attractive by urban territories, because of the various job opportunities and education opportunities. In case of Sweden from 2000 to 2009 during the early labour market career university graduates were motivated to move to urban regions by faster wage growth and more frequently job switching opportunities (Ahlin L. et al., 2014). To be more developed rural people might migrate within the country from rural to urban areas just striving for the personal development. HD might also have transition from the rural to urban areas and as the result, rural areas might lose the sustainable employment bases. Therefore, the cooperation of the rural and urban areas might be an opportunity to impact rural development.

From 1990, rural population of the Baltic States has a tendency to grow as a part of the total countries population (Fig. 1). To ensure human development of the rural population it is important to pay attention on several human development aspects that are discussed in the sub-section 3. The authors propose to focus specially on the education as lack of the education possibilities can cause many difficulties and does not secure the rural human development. Some of the issues can be the growth of NEETs and stagnation of the rural development in general.



Source: The World Bank, 2014b

Fig. 1. The Baltic States Rural population from 1990 to 2013 (% of total population)

Knowledge economy brings challenges for the rural development bearing in mind the real situation in the rural areas. The authors compare the Baltic States knowledge economy indicators to explore the situation further.

Knowledge economy and Knowledge Assessment Methodology

Knowledge is a part of the Human Capital (Becker G. S., 1993). Simply discussing knowledge-based economy it is possible to consider that knowledge economy is a type of

economy that is based on human capital and particularly on the possibility and ability of population's knowledge transformation into the economic value.

"P. F. Drucker (1993) was the first who enriched the management that there is a new kind of capital and called it to the knowledge capital" (Kucharcikova A., 2011). He also outlined that the world is fast moving to a knowledge-based economy (Drucker, 1999). People are striving to be more knowledgeable to develop their knowledge or human capital that is used mostly by industrial and service organisations to produce value for the market. W. W. Powell and K. Snellman (2004) highlight that knowledge economy presumes "knowledge intensive activities that contribute to an accelerated pace of technological and scientific advance as well as equally rapid obsolescence" (Voronchuk I. and Starineca O., 2014).

"The early 21st century has become a century of the knowledge society, where knowledge is (...) an essential factor of individual wellbeing. One of the components of the knowledge society is the knowledge economy" (Lapina I. et al., 2014). One of the knowledge-based economy element is education (White et al., 2012; The World Bank, 2011). The World Bank developed the Knowledge Assessment Methodology (KAM) for knowledge economy evaluation. KAM presumes knowledge indexes application. There are two main knowledge indexes: the Knowledge Index (KI) that "measures a country's ability to generate, adopt and diffuse knowledge" and the Knowledge Economy Index (KEI) that "takes into account whether the environment is conducive for knowledge to be used effectively for economic development". KI is based on Education Index, Innovation Index, Information and Communication Technology (ICT) Index, when KEI additionally takes in the account also the Economics and Institutional

Table 2

Baltic States Basic Scorecard by Knowledge Economy Pillars for 2012 comparing with Europe and Central Asia (max 10 points)

Number	Index	Estonia	Latvia	Lithuania
1	Knowledge Economy Index (Average of 3,4,5,6)	7.09	5.22	5.95
2	Knowledge Index (Average of 4,5,6)	6.84	4.69	5.73
3	Economic Incentive and Institutional Regime	7.83	6.81	6.59
4	Education	7.29	5.66	7.57
5	Innovation	5.85	3.55	3.97
6	ICT	7.39	4.86	5.65

Source: The World Bank, 2012

Regime Index. The Education Index mainly takes into account three variables: average years of schooling, secondary enrolment and tertiary enrolment (The World Bank, 2011a).

In general, KAM is useful as the interactive and accessible for each Internet user tool helps display data on more than 140 countries in six different modes. KAM has also some disadvantages. It does not state clear the year of the used data, e.g. it states 'most recent', the last KAM version was for the year 2012, the validity of the data used is doubtful (some data used are for the crisis and recovery years that are not representative).

Comparing the Baltic States with European and Central Asian countries using KAM it is possible to consider that Estonia and Lithuania have greater potential to successful transition to the knowledge-based economy based on the KI (Table 2).

Lithuania has the highest Education Index according to KAM 2012 (Table 2). Among 144 countries Lithuania is the 14th in the rating by Education Index, Estonia is the 17th and Latvia is only the 27th (The World Bank, 2012a).

One of the variables taken into account calculating Education Index by KAM is tertiary enrolment. "Almost all the contributions on human capital and migration have focused on individuals who recently completed a tertiary education degree" (Faggian A. and Franklin R. S., 2014). Comparing the Baltic States by the percentage of tertiary enrolments particularly in agriculture in 2012, it is clear that Estonia again has a leading position (2.25% of the total tertiary enrolments), when Latvian indicator is the lowest one (1.34%) and is quite twice less than in Lithuania (2.17%) and Estonia. Based on data on the percentage of population age above 15 with incomplete and completed tertiary schooling in 2010 Estonia again has a leading position (30.40%), Lithuania is the second (25.44%) and Latvia is the last among the Baltic States with the indicator of 20.03% (The World Bank, 2014c).

Comparing the Baltic States Education Index, the authors also checked the data calculated towards the HD approach.

Human Development and Human Development indexes

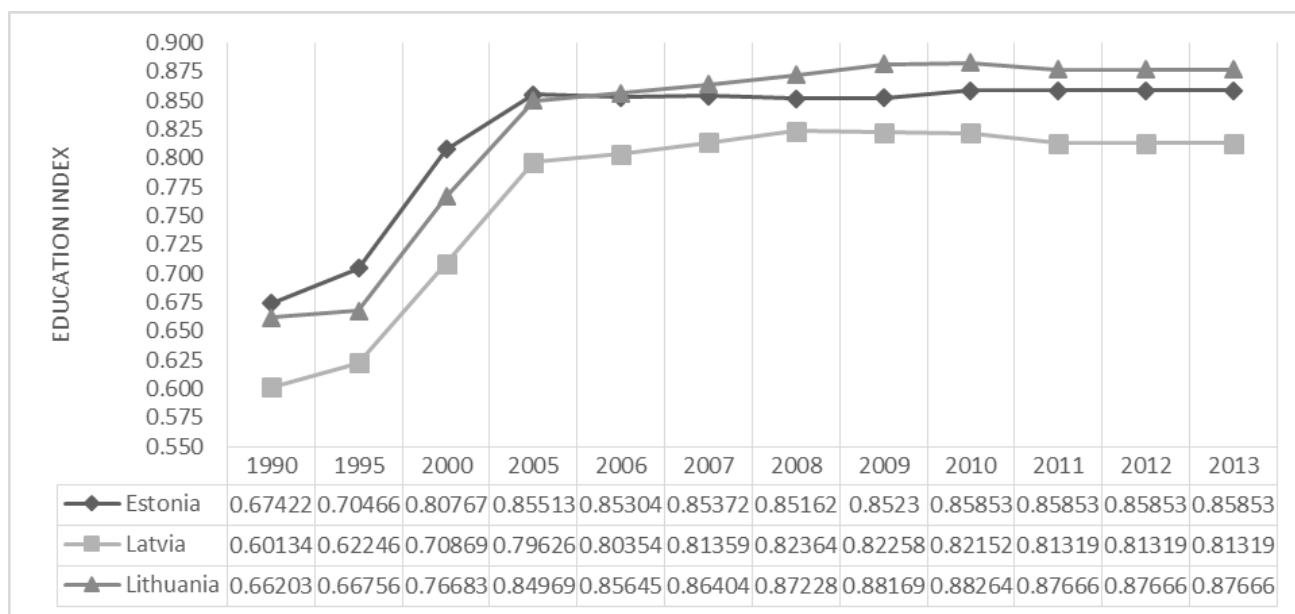
Human Development approach presumes 'people's political empowerment'. HD is a concept used developing the Human Development Reports (HDR). HDRs are "published annually for the United Nations Development Programme from 1990". As a base Amartya Sen's capability approach is used in the analyses. The essence of the HD approach is "the concept of well-being" that can be used as a tool for public policy definition. Nowadays HDRs are focused on "people's political empowerment" (Fukuda-Parr S., 2003).

HD emphasises that people are valuable for society and nation (United Nations Development..., 2014); it is important to think about their development, because more developed person brings additional value for the society and affect its development. Developing people, is enriched their human capital. "Human capital is an unusual production factor because it cannot be transferred easily without transferring people themselves. It is embedded in people's capabilities, tacit knowledge, ability to decode explicit knowledge, wider social networks" (Fratesi U., 2014) etc.

HD indicators show the level of HD. There are several indicators. Some authors might mention such HD indicators as GDP per capita, adult literacy rate, life expectancy, under five mortality etc. (Shahani L. et al., 2009). Classically as HD main indicator, is used the Human Development Index. HDI components are Health Index, Income Index and Education Index that in this case is calculated "using mean years of schooling and expected years of schooling" (United Nations Development..., 2014).

Comparing the Baltic States HDI in 2013, the authors could outline that all countries are at the very high human development group of 50 countries. However, the best result has Estonia, Estonia has the 33rd place in the rating with HDI 0.840 (where 1.000 is a maximum rate), Lithuania has the 35th place (HDI=0.834) and Latvia has the 48th place (HDI=0.810). In 2013 in Europe and Central Asia HDI was 0.738 and the world's HDI was 0.702 that is less than in the Baltic States. Since 2008, Estonia has kept its position in the rating, when Lithuania has been up one position in the rating but Latvia has been down to seven places for the same period (United Nations Development..., 2014a).

Education Index values of the Baltic States have grown from 1990 to 2005 (Fig. 2) from 0.601 to 0.796 in case of Latvia, from 0.662 to 0.850 in case of Lithuania and from 0.674 to 0.855 in case of Estonia. Since 2005, Lithuania has the highest Education Index and the lowest – Latvia. However, the changes of each country's Education Index value are changing in the frames of 0.001 to 0.01.



Source: United Nations Development... 2014b

Fig. 2. The Baltic States' Education Index from 1990 to 2013

"Analyses of the US and European regions show that highly educated workers are important drivers of regional development in terms of jobs as well as incomes per capita" (Glaeser E. et al., 1995; Simon C., 1998; Cheshire P. C. and Magrini S., 2000; Badinger H. and Tondl G., 2003; Ahlin L. et al., 2014).

The authors support the idea that “producing human capital is a necessary but not sufficient condition to guarantee local development because of the fundamental role that migration plays” (Faggian A. and Franklin R. S., 2014). There are two main possibilities for rural areas. First, creation of human capital investing in education or cooperating with other areas. Second, attraction of developed human capital owners, e.g. creating an impetus for young specialists with tertiary education to work for their organisation.

Conclusions, proposals, recommendations

Education is an important element of the countries’ HD towards knowledge-based economy. The different aspects are taken into account, like evaluation of the education level in the countries. Each of them reflects and stimulates HD and knowledge economy development.

1. The Baltic States provide a pool of highly educated workers/specialists in comparison to other European and Central Asian countries. The Baltic States’ rural areas have a quantitative potential for development in terms of human capital.
2. Estonia and Lithuania have greater potential to successful transition to the knowledge-based economy than Latvia. Latvia has the lowest positions in all observed ratings and most probably does not use all its potential.
3. In the rural employment and development context, it is important to form a shared system between the rural plans and strategies and educational institutions. It can be beneficial for municipalities of rural areas to cooperate with educational institutions in the urban areas and create an environment that would encourage local population that receive tertiary education in urban regions to return after graduation.
4. Municipalities of rural regions could also invest more resources in education and involve/attract youth into the education process to avoid NEETs problems. Some social events or/and projects can be associated with the further employment possibilities, patriotic culture expansion.
5. The hypothesis to test in further studies is - education as an element of HD has a high influence on rural development in general.

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CHANGES IN MOBILITY PATTERNS AND SERVICES USE OF RURAL POPULATION

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Abstract. Mobility patterns of rural population in Latvia are changing. Commuting to nearby towns is a widespread practice of rural population, providing access to services and different opportunities. The distance from Riga is becoming more important than regional differences in the regional development context. The main focus of this paper is on the changes of mobility and services-use patterns of rural population. The empirical evidence of this study is based on the survey conducted for the research project "Elaboration of Innovative Diagnostic Instruments for Regional Development". The first results of empirical research show that the same services are not equally accessible between residents in the places with a limited structure of opportunities and everyday mobility resources and residents of more prosperous places. The concept of service provision in rural areas has changed – an offer of various services in rural areas should be replaced by accessibility of services in nearby towns. Developed public transport and road infrastructure as well as development of communication (particularly the Internet) are becoming more important.

Key words: regional development, rural development, mobility patterns, public services policy.

JEL code: R58

Introduction

In Latvia, a rapidly growing number of municipalities with a small number of inhabitants highlights the issue of depopulation of large areas of the country and the administrative costs per inhabitant. The Administrative Territory and Settlement Law (LR Saeima, 2008) states that the minimum number of residents in *novads* (English: county) should be at least 4,000, for it to be possible to maintain a minimal infrastructure, including administration. Currently, in 30 counties (almost 1/3 of the total), the population is below 4,000 and the population continues declining in all these counties.

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The main focus of this paper is on the changes of mobility and services-use patterns of rural population. The empirical evidence of this study is based on the survey conducted for the research project "Elaboration of Innovative Diagnostic Instruments for Regional Development".

Functional relationships between people and places

Describing place attachment and the sense of belonging to a place researchers acknowledge that they are formed both by the emotional bonds, linked directly to the experience of environment and community, as the sense of home, the sense of belonging to a local community, identification with a place, and also by satisfaction with a structure of opportunities in a place (Low & Altman, 1992; Stedman, 2002).

The structure of opportunities in a place is connected with the territorial capital – the development opportunities created by resources and their combinations (van der Ploeg & Marsden, 2008). The structure of opportunities in a place is the capacity of a territory to satisfy the demands of people for the quality of life.

The use of the term quality of life implies a multi-dimensional character embracing social, environmental, and economic dimensions. Many researchers (Stiglitz et al., 2008) argue that conventional, market-based measures of income, wealth and consumption are insufficient to assess human well-being. They need to be complemented by non-monetary indicators of the quality of life. The places that are able to survive in the changing circumstances and maintain attractiveness as places of settlement are sustainable. Resilience of the place and community, the ability to survive crises, adapt, flexibly transform in changing circumstances are important indicators of sustainable development.

Not only the place is a factor for the life activity of a person, but a person is a factor in the development of a place (Zobena & Mezs, 2013). The social and human capital of a place, nature capital, and economic capital form a unified capital of a place, where the capacity to act of social agents, their capacity to use the opportunities offered by a place, is decisive.

Relatively recently, people (particularly in the countryside) to a large extent depended on the opportunities offered by the place. Nowadays, the places where one lives, works, receives services, and enjoys one's leisure mostly do not coincide because people are becoming more mobile. The increase in everyday mobility is a relatively new phenomenon that changes the relationship between people and places. Limited possibilities of commuting makes people consider leaving the rural areas as the place of residence if there are no reasonable opportunities for work, education, shopping, bank services and other opportunities and services within a reachable distance.

Research data sources and methodology

This article analyses the data from the survey conducted for the research project "Elaboration of Innovative Diagnostic Instruments for Regional Development". This study covered different aspects of measurement of sustainable regional development.

A stratified random sample, calculated on the basis of the Population Register data of the Office of Citizenship and Migration Affairs of the Republic of Latvia about the population of Latvia, was used in the survey. In total 1004 permanent residents of Latvia, aged 18-74, were surveyed. The composition of the respondents reflects the composition of adult population of Latvia by gender, age, nationality, and place of residence.

The marketing and public opinion research centre SKDS carried out a survey in September-October, 2014, where 120 survey points were selected randomly from the list of all populated areas of Latvia.

The survey included a question: "Where have you usually been using different services in the past 12 months?" about the following services and opportunities: shopping, bank services, health care, education and further education, possibility to attend culture, leisure and sports events, everyday services (café, hairdresser etc.) – frequently used daily and necessary services or opportunities. The importance of those services is confirmed by other surveys that pay attention to objective quality of life indicators (Tisenkopfs & Bela-Krumina, 2006). In this paper only part of the data is analysed due to its limited size.

Respondents were also asked questions about the means of transport used to reach different important destinations (work-place, municipality office, family doctor) and access to private cars and use of public transportation.

Use of different services by rural population

Where do the rural inhabitants get their everyday services? Some services are used in towns and other territorial units in the municipality or in other place in Latvia. Geographical dispersion of the use of services and opportunities is a part of people's everyday activity. As it was a survey of permanent residents of Latvia, all respondents were offered answers "in the place of residence" and "in Riga" among other options, but residents of Riga were offered only an option "in Riga", as it is their place of residence. In calculations these answers were used with meaning "in the place of residence".

The data of the survey show that some services have been used in the place of residence by rural population more rarely, but some services have been used in the place of residence as often as by other categories of respondents.

Differences in the use of bank services are the most evident. Bank services in the place of residence were used by 32.9 % of rural inhabitants (47.7 % use these services in another town or territorial unit in the municipality). Residents of Riga and other towns have used bank services at their places of residence more often (accordingly 90.5 % and 91.8%). The share of respondents who have not used bank services in the past 12 months is rather high among

rural population, namely, 13.3 % to compare with 3.1 % of inhabitants of Riga and 5.1 % of inhabitants of other towns. Qualitative surveys show that some rural inhabitants do not have regular monetary incomes. Barter and food sharing are still popular forms of exchange in rural communities.

Inhabitants of other towns more often than rural inhabitants have used bank services in Riga – 25.2% and 19.1 %, accordingly. One of reasons could be that cash machines and local branches of the banks are less available outside Riga and other cities (Table 1).

Table 1

Where have you usually been using bank services in the past 12 months? (%)

Place of residence	Use services in Riga	Use services in the place of residence	Use services in other towns, territorial units in the municipality	Use services in other places in Latvia	Use services abroad	Have not used services	Difficult to say
Riga	90.5	90.5	0.6	23.3	12.3	3.1	5.9
Other town	25.2	91.8	12.6	13.1	10.6	5.1	1.3
Rural area	19.1	47.7	32.9	16.8	3.9	13.3	0.9

Source: Survey of the Latvian population, September-October, 2014, n=1004. Respondents could choose several answers, therefore the total percentage exceeds 100%

Shopping is among services which have been used in the place of residence almost equally often by all categories of respondents (Table 2). Data show that 93.8% of inhabitants of Riga, 97.2% of inhabitants of other towns, and 89.9% of inhabitants of rural areas have been shopping in the place of residence. Rural inhabitants more often have been shopping in other towns and territorial units in the municipality (51.5%) to compare with inhabitants of towns (25.7%). Inhabitants of Riga have been shopping abroad more often (21%) than other categories of respondents. Only 9% of rural inhabitants and 13.4 % of inhabitants of other towns have been shopping abroad.

Shopping malls and large retail chains are concentrated in Riga and some other cities where flows of customers are more intensive. People with low incomes usually buy food in small local food stores with limited offer of goods and they buy clothes in the second-hand shops.

Further, more detailed analysis should be done to evaluate the impact of level of income, employment and other variables on the shopping habits of rural population (Table 2).

Table 2

Where have you usually been shopping in the past 12 months? (%)

Place of residence	Use services in Riga	Use services in the place of residence	Use services in other towns, territorial units in the municipality	Use services in other places in Latvia	Use services abroad	Have not used services	Difficult to say
Riga	93.8	93.8	0.6	32.0	21.0		5.3
Other town	42.0	97.2	24.7	24.6	13.4	0.6	
Rural area	31.0	89.8	51.5	24.4	9.0	0.9	

Source: Survey of the Latvian population, September-October, 2014, n=1004. Respondents could choose several answers, therefore the total percentage exceeds 100%

The data of survey show that such everyday services as café, hairdresser etc. have been used by rural population more rarely (Table 3).

Table 3

Where have you usually been using everyday services (cafe, hairdresser etc.) in the past 12 months? (%)

Place of residence	Use services in Riga	Use services in the place of residence	Use services in other towns, territorial units of municipality	Use services in other places in Latvia	Use services abroad	Have not used services	Difficult to say
Riga	85.9	85.9	0.3	19.40	12.8	8.1	4.7
Other town	23.9	86.6	10.1	9.9	6.8	8.0	0.6
Rural area	18.0	40.0	33.9	14.8	3.1	20.2	0.6

Source: Survey of the Latvian population, September-October, 2014, n=1004. Respondents could choose several answers, therefore the total percentage exceeds 100%

One fifth (20.2%) of rural inhabitants have not used these services in the past 12 month. It is more than twice to compare with other categories of respondents. Rural inhabitants have used the services the place of residence more rarely in (only 40%) to compare with 85.9% of inhabitants of Riga and 86.6% of inhabitants of other towns. Rural

inhabitants use these services in another town or a territorial unit of municipality more often (33.9%) than inhabitants of other towns – 10.1%.

These services are provided by private businesses and usually they are available in the places with high population density.

Further, more detailed analysis should be done to evaluate the impact of the level of income, employment and other variables on the use of these everyday services of rural population.

The data show that rural inhabitants have visited a doctor, used medical services (Table 4) in the place of residence not so often (61.1%) as other categories of respondents (inhabitants of Riga – 83.2% and inhabitants of other towns - 80.3%). Rural inhabitants have used medical services in another town or territorial unit in the municipality more often (31.8%) than inhabitants of other towns – 6.9%.

Table 4

**Where have you usually visited doctor, used medical services in the past 12 months?
(%)**

Place of residence	Use services in Riga	Use services in the place of residence	Use services in other towns or territorial units in the municipality	Use services in other places in Latvia	Use services abroad	Have not used services	Difficult to say
Riga	83.2	83.2	0.3	2.9	1.2	10.6	5.5
Other town	14.2	80.3	6.9	3.4	0.3	12.7	1.6
Rural area	13.1	61.1	31.8	12.0	0.9	15.8	2.5

Source: Survey of the Latvian population, September-October, 2014, n=1004. Respondents could choose several answers, therefore the total percentage exceeds 100%

The preliminary analysis of geographical dispersion of the services use shows that rural inhabitants use services in other town or territorial unit in the municipality more often, inhabitants of Riga and another towns have access to a wide range of services in their places of residence. Rural inhabitants have used some services during the last 12 months more rarely than other categories of respondents. Further studies are needed to evaluate accessibility of several services (e.g. medical services) and the demand for them among rural inhabitants. An influence of employment, education and age of respondents should be taken into account in more detailed analysis.

Mobility of rural population

Everyday mobility is a substantial resource that provides access to different opportunities. Several resources are needed for everyday mobility, e.g., access to transport infrastructure, personal means of transport or public transport, as well as an ability and motivation to go somewhere. Everyday mobility in rural areas (related to a job, use of services, maintenance of social contacts etc.) is closely connected to the distance from the urban centres, available transport infrastructure and other resources people have – personal car, bicycle, driving skills.

Possibilities of mobility are an important aspect of quality of life and life-satisfaction. In places with limited possibilities of commuting people consider leaving the rural areas as place of residence more often if there are no reasonable opportunities of work, no access to different services and other opportunities within a reachable distance. The people from rural areas who have the opportunities and resources for mobility, for example, people with higher income, who own or use the means of transport and commute daily in order to get to work are in a better position than those who do not have the resources, they have no personal car or have a difficult access to the public transport.

Respondents answered a question about the use of any public transportation services during the past month. The data show that inhabitants of Riga use public transportation services more often than inhabitants of smaller towns and rural population (Table 5).

Table 5

Have you used public transportation (tram, trolleybus, bus, microbus, train) services during the past month? (%)

Place of residence	Yes	No	Difficult to say	Total %
Riga	86.8	12.6	0.6	100.00
Other towns	65.8	33.4	0.8	100.00
Rural area	64.8	34.1	1.1	100.00
All respondents	72.3	26.9	0.8	100.00

Source: Survey of the Latvian population, September-October, 2014, n=1004.

Regarding the access to the personal car in case of necessity, the data show that there is no significant difference between inhabitants of Riga, other towns and rural areas. Personal cars are likely less accessible to residents of other towns than to other categories of respondents. Data in Table 6 show that rural people have even slightly better access to the personal car than the residents of Riga.

Table 6

Do you have access to the personal car (you own it, you could borrow it or somebody could drive you) in case of necessity? (%)

Place of residence	Yes	No	Difficult to say	Total %
Riga	72.3	23.6	4.1	100.00
Other towns	68.9	29.0	2.1	100.00
Rural area	73.0	23.2	3.8	100.00
All respondents	71.3	25.4	3.3	100.00

Source: Survey of the Latvian population, September-October, 2014, n=1004.

To analyse the use of different means of transport, respondents were asked to answer questions about the means of transport usually used to get to everyday destinations. All categories of respondents use private transport (car, bicycle) to get to work-place with almost equal frequency - 22.6 % of residents of Riga, 25 % of residents of other towns and 26.9 % of rural people. Residents of Riga more often use public transport – 35.4% to compare with 11.5 % of residents of other towns and 6.6% of rural people. Rural people do not need to use any mean of transport to get to their work-place more often (39.2 %) to compare with 29.8 % of residents of Riga and 32.2 % of residents of other towns. Some of them perhaps work at their family farms, but part of them could be unemployed. People outside Riga more often reach their work-places just walking – 20.1% of rural people and 25% of residents of other towns. Only 9.7% of residents of Riga walk to their work-places.

Discussion

Functional relationships between people and places are changing rapidly. The statement that countryside, as a location with fewer opportunities, will stay practically empty in the near future is controversial. More and more people live in rural areas but work in towns. Commuting to the nearby town for work is a widespread practice, providing access to the most vital services and opportunities (Zobena, Lace & Benga, 2012). In the regional development context the distance from Riga, the capital, is becoming more important than regional differences.

Conclusions, proposals, recommendations

The first results of the empirical research show that geographical dispersion of the consumption of services and the use of opportunities is a part of rural people's everyday activity. The same services are not equally accessible for people in the places with a limited structure of opportunities and everyday mobility resources and for inhabitants of more prosperous places.

The concept of service provision in rural areas has to be changed – a wide offer of services in rural areas should be replaced by accessibility of services in nearby towns. Developed public transport and road infrastructure as well as the development of communication (particularly the Internet) are becoming even more important.

The further analysis is needed to understand patterns of mobility and use of services by different groups of rural population taking into account their age, education, employment and level of income, the structure of opportunities of different places.

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THE STUDY OF SOCIAL INNOVATION THEORETICAL FRAMEWORK FOR ENHANCING OF RURAL DEVELOPMENT AND AGRICULTURE IN LATVIA

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Abstract. The paper provides an overview of social innovation theoretical aspects and presents a study of endogenous and exogenous opportunities to develop social innovation ideas that enhance more efficient collaboration between the producers of agricultural products and their customers, thus contributing to the overall rural development of Latvia.

The aim of the paper is to provide an overview of social innovation development in agricultural enterprises focusing on food producers. In the scope of the elaboration of the paper, the authors have analysed theoretical literature on social innovation and rural development as well as aggregated: secondary information from Latvian rural and national planning documents; data by Central Statistical Bureau of Latvia and EUROSTAT, and consumer cooperatives in Latvia.

The study revealed that due to increasing competition in agricultural products' market, rural entrepreneurs had parallel to existing forms of collaboration to seek for a more holistic market approach. Nowadays, the retention of the market share and ensuring of sustainable food consumption play an important role, which requires that consumers are also involved in the creation of the product value chain.

Key words: social innovation, rural development, sustainable consumption

JEL code: O31, Q13

Introduction

The paper presents the authors' research aimed to identify the opportunities for developing social innovation in enterprises which produce agricultural products in Latvia[§]. A great deal of research works have shown that although social innovation is primary focused on meeting social needs of the population, entrepreneurs involved in social innovation also gain substantial

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benefits derived from its implementation. Based on the theoretical framework of social innovation and case studies, the authors intend to analyse creative ideas and holistic approach to value chain organization in enterprises of agricultural products; this approach has become topical being already partly exploited by some entrepreneurs.

The *aim* of the paper is to provide an overview of opportunities of social innovation development in agricultural enterprises focusing on food producers. This has set the following *tasks*:

- 1) to study the theoretical aspects and topicality of social innovation development;
- 2) to summarize the challenges and problems caused by social and economic transformations in rural areas of Latvia;
- 3) to identify the opportunities as well as promoting and hindering factors of social innovation development in food and agricultural product sectors in Latvia.

The research *object* is social innovation; the research *subject* is benefits of social innovation for enterprises which produce agricultural products and provide overall rural development. In the context of the elaboration of the paper, the authors have analysed theoretical literature on social innovation and rural development based on the sources mentioned earlier within the Latvian and European frameworks.

Research results and discussion

The nature and topicality of social innovation for rural development

In recent years, in the world there is a growing interest in social innovation, enhanced by a number of successful implementations of social innovation, e.g. shopping cooperatives, microcredit groups and even such huge projects as Open University and Wikipedia for their nature can be regarded as social innovations, which have found their expression in practical life. All these above examples are united by the fact that these ideas have in their early stage been focused directly on consumer needs, improving their quality of life (Mulgan G. et al., 2006).

If the theoretical literature on business innovation today is very extensive and versatile, the systematic analysis of social innovation is currently still in the process of formation. Although the management process and the generation of financial resources in raising social innovation has much in common with business innovation, still social innovation develops only if it contributes to the common goals of society. These are innovative activities and services, motivated by goal - to meet a social need. Thereby, a key difference of the rest of the business innovations from the social innovation is a focus on profit maximization. Behind business innovation usually stands targeted investor but social innovation requires different and diverse set of support resources, including policy makers' recognition and support, and often volunteering and charity (Mulgan G. et al., 2006).

Self-sufficient and stable world community would likely be very little interested in the development of social innovation. However, under current conditions, when not only weak but also the strong economic systems are no longer able to function adequately, the role of social innovation is increasing. The necessity for social innovation is determined by the growing gap between what social services offer and what is really necessary to people.

Cities are most often associated with development, while rural areas – with problems due to dispersed human capital, comparatively less developed infrastructure, unemployment, social exclusion etc. (Sumane S., 2010). Consequently, there is a need for new innovative approaches to various social issues in rural areas, for example, there is lack of opportunities for getting different levels of educational services which causes stratification of society. The authors consider that the necessity for the development of social innovation in rural areas today is determined by a number of essential facts. First, approximately 30% of all Latvia residents still live in rural areas. Secondly, agriculture and related industries account for about 3.7% of the Latvia GDP (LR CSP, 2014). Thirdly, looking at a larger scale, agriculture is one of those sectors of economy, which is not only closely related to the particular country's economic development but also with the development of all the European Union rural areas as such, and has repeatedly been defined as a significant stabilizing factor for the overall European Union's common development. Consequently, in the coming years, the objectives of Latvian national importance are: purposeful use of each hectare of agricultural and forestry land in order to make rural entrepreneurship as efficient as possible, ensuring the highest possible production of value-added and higher income rural enterprises. As a result, the situation in rural areas would improve - people would have work, and rural areas would become a more attractive place to live. This Latvian Rural Development Programme 2014-2020 (2014) strategy is subordinated to the National Development Plan of Latvia for 2014–2020 (2012), which, in its turn, is the supreme national-level planning period document. It is closely linked to the European Union planning documents and set priorities and thematic objectives, among which: production of high quality exportable products; provision of internationally competitive services; and ensuring excellent business environments are especially emphasized as of high importance. And finally, the need to improve the well-being of the rural population, reduction of poverty and social inequality as well as sustainable use of natural resources are referred to as the *Millennium Development Goals*, the goals of all countries. In achieving these goals, alongside with smart rural development policy it is also important to enhance rural population's ability to organize themselves and being able to change their attitude towards existing environmental factors.

For the last decade, it has been observed that the existing models of society both in Latvia and even more developed European Union countries are unable to handle many social problems (e.g. ensuring education and health care services throughout the country) due to formation of unfavourable regional differences because they are retrospectively oriented or oriented to

some involved parties' financial gains at the expense of the existing problems (Mulgan G. et al., 2006).

Challenges and problems caused by social and economic transformations in the rural areas of Latvia

Dramatic decrease of population in the Latvian countryside during the 21st century is one of the nation's most acute survival issues that need urgent solution. Unfortunately, policy makers are often eager to discuss the re-emigration plan and the means for its implementation and increasing their effectiveness. However little attention has been paid to those communities in rural areas, where a small population of the territory are able to achieve good space functioning and development results, which demonstrates that the population's coverage in the local space is not the most crucial factor for the development of the area but only one of them (Sauka A. and Rivza B., 2014). A special attention in rural development should also currently be paid to some rural people's ability to skilfully operate all aspects of life.

Kudins (2012) emphasizes that in order to achieve socially desirable outcomes, people should be able to organize themselves, to face the challenges, identify their needs and priorities and try to satisfy them by (1) self-organisation in groups; (2) local resource mobilization, and (3) by attracting other resources. However, according to the results of research conducted in various countries, not every community* is able to meet these challenges. The most common reasons why the best intentions of community's initiatives do not reach their goals are lack of education, experience and communication skills and incapability to consolidate different target groups for actions that could improve the lives of each group of individuals and communities as a whole.

Serious problem is fragmentation of rural population and its criticism about collaboration due to the negative experience gained from Soviet collective farms. Moreover, rural communities are not homogeneous as consist of agents[†] representing different social and economic groups (farmers, youth, pensioners, entrepreneurs), of which most active groups are commercial farmers and women's organizations. Significant forms that organize and consolidate rural agents are NGOs and partnerships (Sumane S., 2010).

According to the early classification of Mosher (Mosher A.T., 1966) the development of agriculture is favoured by a number of "accelerators" and "essentials", which are mainly all economic and a few political factors. In 2009 a group of scientists under the guidance of Professor Hoffmann (Hoffmann V. et al., 2009) supplemented this classification emphasizing apart from agricultural development also the importance of rural development, which resulted

* The term "community" means a group of people, which is characterized by common territorial, economic, social or cultural interests.

† The term "agent" refers to an independent entity, which has the ability to achieve the goal. Social agent is an agent for a given social system.

in supplementing the economic factors of Mosher's (1966) classification with several social factors, int. al. rural advisory and training services (Table 1).

Table 1

Economic and social elements favouring agricultural and rural development

Elements	Economic and social essentials for agricultural and rural development promotion	Economic and social accelerators for agricultural and rural development promotion
Factors of the elements	<ul style="list-style-type: none"> • Sound rural development policy • Basic education • Democracy and peace • Health services • Legal certainty and reliability of institutions • Credit availability • Basic infrastructure specifically for agriculture: <ul style="list-style-type: none"> - Rural markets for farm products (which includes demand for farm products at local, national, regional and international level, a marketing system and farmers' confidence in the working of the marketing system and reliability of fair prices) - New technologies to increase production - Local availability of supplies and equipment 	<ul style="list-style-type: none"> • Extension services • Education and training • Self-help promotion • Community development work specifically for agricultural development: <ul style="list-style-type: none"> - Production incentives (subsidies) - Conserving, improving and expanding agricultural land - Farmers' organizations (associations, groups, co-operatives)

Source: Mosher A.T., 1966; Hoffmann V. et al., 2009; Grinberga-Zalite G., 2011

The society is a dynamic system which transforms and evolves. Changes can be encouraged by technological development, demographic changes, new features for individual lifestyles etc. However the consequences may result in further social inequalities in society (Macionis J.J., 2004). In Table 1, education, training and self-help promotion factors listed in the "accelerators" group are regarded as factors which enhance rural economic and social development.

Scientists from various countries have shown that self-organization of society and targeted involvement in socially significant initiatives are an essential prerequisite for harmonization of interests of various members of society (Barnes H.S., 2006; Yaojun L. and Marsh D., 2008; Petrova T. and Tarrow S., 2007; Habermas J., 1995; Kruzmetra M. and Rivza B., 2014). Pelse in her doctoral thesis, which deals with the assessment of social capital aspects in Latvia countryside, emphasizes that economic and social development in Latvia countryside cannot take place without human resources, i.e. without human capital and social capital provision. Human capital is the talents and acquired skills: knowledge, qualification, experience, and skills that can be used for productive economic activity which promotes overall progress (Pelse M., 2006). Whereas social capital is institutionalized informal norms that facilitate co-operation between two or more individuals (Fukuyama F., 1995).

Characterization of opportunities and hindrances to the development of social innovation in marketing of Latvian food and agricultural products

Each social innovation is based on a good idea but not all good ideas are implemented in case if the idea does not reach the response from its target group. The reason of this is the fact that in any social system stability is very important for people, whereas innovation is often caused by changes, thus people are often more concerned about potential change than possible benefits that would occur owing to these changes. For example, Latvian farmers are very cautious in engaging in new market models - consumer cooperatives. This is due to the fact that in the relatively recent past, farmers invested both considerable material resources and their time in traditional cooperation models (e.g. established long-term agreements with the production intermediaries), thus it seems quite difficult for them to switch over to another cooperation model. In addition, any social system strengthens people's consciousness in the form of assumptions, values, and norms; and the better the existing system works by giving people confidence in its being safe and prosperous; the stronger it will strengthen people's confidence that it is the best and most appropriate for them. Therefore, people are often sceptical, for example, to different (sustainable) shopping methods, because their previous experience in shopping in hypermarkets fully meets their needs but vague consequences in a distant future perspective do not cause special distress. Finally, there is also the relationship barrier for the implementation of social innovation. The creation of innovative ideas and putting them into life both in business and public sectors depend on social ties and relationships between people; if for some reasons they fail to establish good relationships, there will be barriers to the implementation of the change planned.

In rural areas of Latvia, the development of social innovation ideas can be both endogenous and exogenous. As a positive example of how social innovation agents from the city see the potential for possible development with a farmer in one of the Latvian rural areas proves increasing popularity of "direct purchase groups" in Latvia. In these groups people receive food directly from farmers without intermediaries. A few years ago such a movement began in Riga but today new groups are emerging also in regional cities. Direct purchase movement provides an opportunity to prevent the danger of extinction of rural farms and help those small farms, so that such an idea is considered not only as an alternative and fresher products' shopping opportunity but also as a social innovation which basically contributes to the common goals of the society. Currently, there are 10 such groups in Riga and 16 – in all Latvia. The association "Latvian Friends of the Earth" estimates that there are at least 600 families in Latvia that are active weekly shoppers of such schemes (Latvijas Zemes draugi, 2014). The distribution of number of people incorporated in such schemes looks like the following: Sigulda – 80, Valmiera – 50, Smiltene, Ikskile and Cesis – 15-20 people in each. There are new groups in the development stage as well in Jelgava and Ogre (Kas ir tiesas..., 2014). Currently direct purchase groups are the most active in Riga and Vidzeme, and, in general, this movement in Latvia is still at an early stage of development. At the same time, after examination of the

ordering rules of the direct buying groups, the authors consider that there are many serious obstacles for such social innovation, which are difficult to deal with. Firstly, people prefer cheaper products because of their purchasing power and lack of knowledge about the nutritional benefits of local food. Secondly, since the principle of the delivery of the direct purchase groups implores preliminary ordering of the products and the waiting until they are supplied, people do not want to devote more time to such a shopping scheme than it could be spent in traditional shops. Thirdly, in order to be able to maximize the benefit from the direct purchase, buyers should be able to plan the necessary product range and volume well in advance, which is also an additional burden. Fourthly, such purchase schemes demand voluntary work from the buyers who should be on duty for ordering food for a whole group of people. Of course, of the utmost importance and responsibility for ensuring the functioning of the direct buying group lies on the supplier that is on the agricultural producers. Such models of cooperation often break down because the farmer is unable to ensure the order fulfilment according to the terms of the agreement; this reduces the reliability and trust of buyers to this model.

Pelse (2006) in her study of the development of farmers' social capital opportunities in Zemgale found that farm development indicators were influenced positively by farmers' participation in professional associations, unions and various public organizations of agricultural character as well as cooperatives. Therefore, those farmers who have established cooperation with other agents for ensuring their stability can better succeed in their business. It should be noted that in recent years, the promotion of cooperation in agriculture at the state level is defined as priority axis which emphasizes the need to: promote cooperation between farms, organization of a common sales points and increase farmers' awareness of the benefits of such co-operation (Development of Cooperation..., 2012).

As it was already highlighted, food and agricultural products account for a significant part of Latvian export / import balance, and the agricultural industry enterprises are important employers. The success or failure of their activities determines whether or not the rural residents will have workplaces near home. According to the Latvian food and beverage producers' point of view, the most serious factors that hinder innovation are high innovation costs and the fact that the market is dominated by influential players.

In 2010, approximately 20% of respondents representing food and beverage manufacturing companies claimed that in their enterprises innovations were hindered by the lack of both internal and external financial resources. At the same time, Figure 1 shows that in terms of exogenous motivation for the creation of social innovation 45% of companies are interested in introducing innovations to reduce their company's impact on the environment but 40% - in order to improve their employees' health and safety (Pilvere I. et al., 2014). Accordingly, representatives of business are interested in introducing technological innovation that would

also generate social benefits, because it is an essential prerequisite for ensuring sustainable consumer markets (Pilvere I. et al., 2014).

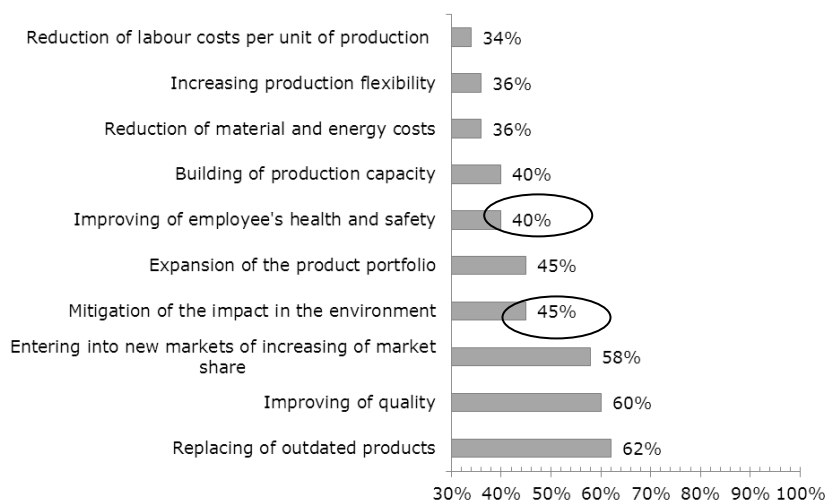


Figure 1. **The most important objectives of technological innovation in Latvia food production, 2010 (% of the number of technological innovations)**

Source: Pilvere I. et al., 2014

In addition to the above mentioned obstacles resulting from scarcity of financial resources that hinder invention of innovation in the company, 14% of respondents indicated that they were unable to find partners necessary for implementation of innovation. In authors' opinion, these results confirm that former traditional models of cooperation, in which participants engage in only because of their material gain, are gradually forced to change and should additionally look for more holistic approaches. It is explained by the fact that in the result of the increasing competition, retention of the market share and sustainable food consumption* all in all play an important role. Consequently, involvement of the purchaser into the product value chain development becomes the topic of the day.

In Latvian food production, the most important sources of information for innovation initiative are: the company itself or the group of companies to which it belongs; material and equipment suppliers; the company's customers and competitors (Pilvere I. et al., 2014). Consequently, Latvian food manufacturers' competitiveness can no longer be achieved only by target-oriented investor's attraction but also by company's ability and openness to build mutually beneficial and sustainable relationships with consumers. Therefore, companies should concentrate not only on profit maximization but also contribute to the common goals of society. If social innovation idea is viable, it is essential to obtain support and public interest expressed by

* Sustainable food consumption – the result of deliberate or unconscious actions of consumers focused on purchasing sustainable products to balance consumption and reduce waste, thereby affecting the environment as little as possible by their actions and contributing to the local economy and social responsibility by their choices (Dzene S., Eglite A. and Grinberga-Zalite G., 2014)

willingness to buy this product; sponsors and patrons should be willing to provide material contribution; whereas public sector should provide support in product procurement.

Tidd and Bessant (2010) characterize such cooperation model by comparing it with symbiosis that exists in the nature between bees and trees. In the context of social innovation, bees associate with small organizations, groups of individuals who are mobile, able to fast reaction and most importantly – they have new ideas. In nature, bees act as pollinators of the trees. Whereas trees associate with large public institutions or organizations that do not inhere special creativity, however they can be good implementers, they have resources and necessary power for influencing, which all in all enables them to develop the idea. Both parties need each other to enhance implementation of innovation in reality (Tidd J. and Bessant J., 2010).

Conclusions, proposals, recommendations

1. Despite the fact that approximately 30% of all Latvian residents live in rural areas, and agriculture with its related industries account for about 3.7% of the Latvia's GDP, the social gap between rural and urban inhabitants is increasing every year. Such situation requires searching for new innovative approaches to various social issues in rural areas in order to reduce further stratification of society. Rural development of Latvia is largely determined by rural agents' ability to organize themselves in order to achieve socially desirable outcomes, which can be achieved by self-organization of the population, as well as by mobilizing local resources and attracting skilled help from the outside. Therefore, the social innovations can currently be encouraged by finding unusual ideas for obtaining multidimensional support, including the assistance provided by policy-makers and involving local agents in voluntary work and charity.

2. Although customers prefer to purchase agricultural products of Latvian origin, they are often sceptical to alternative purchase organisation schemes, because their previous experience of shopping in hypermarkets fully meets their needs. The consequences of this comfort may cost a lot to agriculture and rural development of Latvia as the local producers may not survive in this competition. It's a challenge for the whole society, especially for the Ministry of Agriculture who are to educate and motivate buyers to support the creation of short food chains. Such approach would encourage customers to engage in finding socially innovative solutions and ensuring the effective work of these chains throughout Latvia.

3. In order to strengthen sustainable local food consumption in Latvia, it is necessary to continue promotion of co-operation at the national level, i.e. between: local food producers via creation of joint marketing platform; already existing direct buying groups' activities by benchmarking the best practices. This would motivate buyers and policy makers to become involved more actively in the creation of new logistic chains, which would not be driven only by material gains but also by proactive attitude and popularization of healthy lifestyle.

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SENIOR COMMUNITIES WITHIN A CONTEXT OF SUCCESSFUL AGEING POLICY IN LATVIA

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Abstract. Ageing societies have become a challenge for many countries including Europe and Latvia. One of the future challenges is to recognize that seniors as a socially active and healthy generation, which is able to sustain itself, is a significant resource for families, communities and society in general. This attitude leads to turning ageing problem into opportunity. The aim of this study is to summarize cases of the best practice highlighting activities of senior communities within a context of successful ageing policy in Latvian municipalities. Popularization of the best practice in wider society ensures sharing good experience and promotes initiatives to adopt it in other communities, thus, responding to senior needs for social contacts, social support and other social activities in order to prevent marginalization and risks of social exclusion in local communities.

The research is based on qualitative and quantitative data sources, which were used to identify best practices of activities in senior communities in different regions of Latvia. The results allow confirming the assumption that performance of seniors and their communities have to be acknowledged as a significant resource turning ageing society problem into opportunity within a future demographic context in Latvia.

Key words: senior communities, successful ageing, ageing policy, quality of life, examples of best practice.

JEL code: Z180

Introduction

Ageing of society is one the biggest policy challenges in contemporary rapidly changing world. The year 1999 was launched as the International Year of Older Persons which envisaged initial proposals for society of friendly multi-generational relationships (AARP Office for International Affairs, 2009). Respecting new coming demographic challenges, progressively thinking states tend to formulate their policies related to social policy on the basis of massive studies and observations. These policies are focused on reasonable social planning emphasizing successful ageing of older generation which experiences high quality of life.

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Successive European Councils have recognized the need to tackle the effect of ageing populations on European social models. A key response to this rapid change in the age structure consists in promoting the creation of a culture of active ageing as a lifelong process and, thus, ensuring that the rapidly-growing population comprised of people who are currently in their late 50s and over, who are, on the whole, healthier and better educated than any such age group before them, have good opportunities for employment and active participation in social and family life, including volunteering, lifelong learning, cultural expression and sports. In order to accept this challenge, the European Parliament and the Council of the EU launched the European Year for Active Ageing and Solidarity between Generations in 2012 (The European Parliament and the Council of the EU, 2011). In a result the unique opportunity was proposed to mobilize senior knowledge and experience which in turn could be offered as contribution to society because seniors are great potential and opportunity rather than problem and obstacle. The main task of the European Year for Active Ageing and Solidarity between Generations was to increase awareness about senior's contribution to society and their support opportunities. Therefore, the government of the Republic of Latvia organized conference about population ageing on March 23, 2012. The aim of the conference was to raise discussions between legislator, policy makers, employers and employees on seniors as active, experienced and developed members of the society (Latvija norisinas konference..., 2013). In May 2013, the Demography Subcommittee of the Budget and Finance (Taxation) Committee of Saeima (the Parliament of the Republic of Latvia) emphasized problems related to ageing and stressed necessity to elaborate so called "Silver Policy", which would be based on experience of the EU countries and research conducted in Latvia (Dzives kvalitāte sabiedrības ..., 2013).

In the period from June 2013 to June 2014, Members of the Budget and Finance (Taxation) Committee of the 11th Saeima in cooperation with one the authors of the paper (A. Grinfelde) conducted research on initiatives related to successful ageing, which are planned and implemented in all municipalities in Latvia's regions. Results of working group discussions in regional senior forums were discussed in conference of the 11th Saeima in June 9, 2014 (Saeima diskute par..., 2014). In this conference, Bela B. emphasized necessity to popularize idea of active and healthy ageing by strengthening cooperation between researchers, developers of products and services, policy makers, NGOs and society (Bela B., 2014).

It is important to study the best practices in Latvia, which are already researched in many European countries, for example, Germany, the Netherlands, Austria, and other world regions like Japan and Thailand. This will promote active ageing in rural areas and increase quality of life. It should be emphasized here that Thailand has developed the Second National Plan 2002-2021 for supporting old people. One of the policy instruments provides involvement of at least half of seniors residing in local communities in activities, which ensure healthy and active life in old age (Jitapunkul S. et al., 2009). Considerably that it is planned to start elaboration of mid-term policy in 2017-2018 related to population ageing in Latvia (Snikere S., 2014). Necessity for the policy based on researched positive experience supports the fact that on

December 11, 2014 the European Parliament established the intergroup "Active Ageing, Intergenerational Solidarity & Family Policies" (European Parliament, 2014).

In this study, senior communities (the concept is applied to senior NGOs) are defined as research object. The aim of this paper is to summarize cases of the best practice highlighting activities of senior communities within a context of successful ageing policy in Latvian municipalities. The authors defined the following tasks:

- 1) to discuss theoretically opportunities to study the best practices of senior communities for successful ageing of society;
- 2) to summarize activities of senior communities and to structure their domains;
- 3) to identify examples of the best practice of senior communities.

The authors seek to find answers on the following research questions:

- 1) How activities of senior communities are spread all across Latvia and which activities more frequently have been realized for ensuring successful ageing of society?
- 2) Which examples of the best practice should be popularised as positive experience for successful ageing of society?

Mixed methods were used in the research and both quantitative and qualitative data were obtained from a number of information sources: (1) document analysis was carried out when analysing responses from municipalities in all regions of Latvia (N=118) about successful ageing initiatives in municipalities and characteristics of senior communities within this context (information was obtained from the correspondence between Member of the 11th Saeima Inga Vanaga and representatives of municipalities); (2) in-depth interview with the chair of the board Terezija Mackare of the senior society "Rigas aktivo senioru alianse" ("Alliance of Riga Active Seniors"); 3) unpublished documents of the Lattelecom Ltd.

Research results and discussion

1. Theoretical framework of researching the best practices of senior communities in the process of successful ageing

Growth of population on the basis of population ageing raises demand for health and social care services. Individuals will be fostered to develop harmonic and positive relationships with relatives, because globalization, urbanization and international migration develop rapidly. Society needs to be active in every stage during the life course. This paper focuses on seniors as social group facing all these needs today, thus, older people expect attitude and preconditions that they are valued and needed. Many seniors are concerned that with an ageing their life will become worse, in contrary there is a widespread opinion in the society that old people care only about their problems and in general they are burden for younger generation.

High quality of life for seniors can be reached only through the process of successful ageing. In scientific literature the scholars use several concepts related to ageing of society: active

ageing, positive ageing, healthy ageing, and successful ageing. All these concepts comprise similar elements; however, they differ (Table 1.). On the basis of the study carried out by G. Ziemele – Trubaca (Ziemele-Trubaca G., 2014), the concept of successful ageing has been implemented in Latvia. Her study focused on analysis, which of the ageing concepts is more inclusive to focus on the result of the process – high quality of life.

Table 1

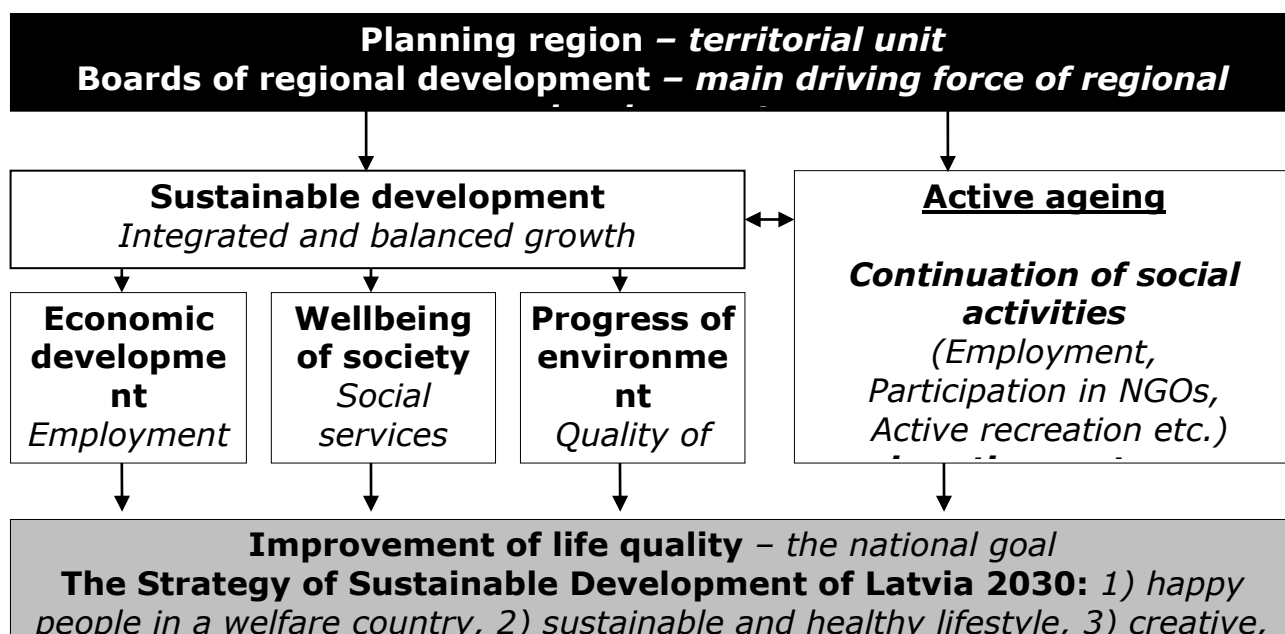
Significant components of the concepts related to ageing society

Concepts	Significant components of the concepts
Active ageing	<ul style="list-style-type: none"> -ability to sustain productive life -participation (social, economic, cultural, mental and civil) -maintenance of healthy lifestyle -change of previous social roles to alternatives
Positive ageing	<ul style="list-style-type: none"> -ability to learn and adapt, and accept positive changes -optimization of biological, social resources and behaviour (compensation of deficits) -involvement in productive activities (job, hobbies etc.) -satisfaction and emotional balance -ability to change lifestyle, attitude and skills
Healthy ageing	<ul style="list-style-type: none"> -optimized opportunities of physical and mental health in order to be inclusive without discrimination - enjoying independent life and good quality of life
Successful ageing	<ul style="list-style-type: none"> -adaptation to looses of the process of individual ageing -active and productive functioning (positive self-evaluation, attitude towards life) -development and progress in old age -self reception and positive relationships with other -autonomy, sense of security, maintenance of meaning of life -optimal physical health and developed high cognition -welfare -ability of unity and adaptation -ability of survival and functionality, social integration

Source: authors' construction and display, based on Ziemele – Trubaca G. (2014)

The authors of the paper use here the concept of *successful ageing* as they support opinion of Ziemele – Trubaca that this concept is the most appropriate for Latvia's context, because it has positive connotation and embraces all elements affecting high quality of life (Ziemele-Trubaca G., 2014). Seniors as social category in this paper are defined as individuals in age over 50. Still, the authors focus more on retired people; therefore, the term *people in retirement age* (62+) and *seniors* (50+) are used as synonyms in the paper.

In Latvia where the number of seniors significantly increases in demographic structure, studies on ageing, senior life standards and problems are few. However, these issues are topical also at regional level as there is a necessity to maintain even quality of life and balanced development in the state. In Latvia, strategic planning documents comprise human centred approach and gradual increase in quality of life, which is defined as objective for sustainable development leading to decrease of differentiation between different groups of population (Figure 1).



Source: developed by A. Grinfelde (Grinfelde A., 2010)

Fig.1. **Monitoring of ensuring seniors' life quality in the regions defined by strategic planning documents of Latvia**

Latvia is divided in five planning regions and current legislation does not obligate the administrative bodies to fulfil specific function related to active ageing of society. One of the future challenges might be delegating new function to the planning regions: improvement of cooperation between planning region development institutions and non-governmental organizations of seniors. The research results envisage five main directions of cooperation: (1) exchange of information; (2) methodological help; (3) study of seniors' life; (4) participation in planning; (5) seniors' as resources. One the most significant directions of cooperation are senior volunteering activities, because seniors need to feel useful. Very important directions in cooperation are participation in elaboration of regional development planning documents and information exchange. Examples of good practice in regions confirm senior ability to perform altruistically in development of the region and local municipality by taking care of raising quality of life for both seniors and other groups of society (Grinfelde A., 2010).

Senior communities in different regions of Latvia are still undervalued resource for providing successful ageing of society. C.B. Flora, J.L. Flora and S. Fey (2003) emphasize that the term *community* refers to both a location in which members of a group interact with one another, and a set of people who share a sense of identity held by a group of people who may or may not share the same geographic space. *Community* is the social system itself, the organization or set of organizations through which a group of people meet their needs. G. Brager, H. Specht and L. J. Torczyner (1987) agree that relationships between community members are based on a shared history, mutual expectations, predictable roles, values, norms, and patterns of status differentiation. All these elements may involve low to high degrees of reciprocity and alienation and all of them contribute to a psychologically and socially important sense of shared identity.

The role of the community is to fulfil specific purposes that its members cannot satisfy alone (Brager G., Specht H., Torczyner L. J., 1987:33-37). Communities involve particular structures of social networks.

Analysis of the best practice of senior communities is based on criteria grounded by E. Berdach: (1) originality of an idea (rarity of the particular senior activity among other senior communities); (2) importance in the context of successful ageing of society (the activity of senior communities make senior life better, more effective); (3) financial impact (the activity of senior community requires relatively small amount of financial resources); (4) experience adoption (the activity of one senior community is transferrable as new practice in other municipality or community) (Vesely A., 2011).

Senior communities that operate in different regions of Latvia provide opportunity for elderly people to be involved valuably in social life by involving them in plenty of different social, economic and political processes. Therefore, it is important to understand how widespread are senior communities in Latvia and what activities are mostly established for ensuring successful ageing.

2. Development of senior communities in the regions of Latvia

There is no available statistics about the number of seniors in local municipalities. The authors of the paper use data about unemployed pensioners (Table 2) to whom participation and activity in various social processes might be very significant as well as data about number of senior communities in regions, and conclude that senior communities are mostly spread in Pieriga and Vidzeme regions. Situation in Latgale and Riga is different, where seniors have bulk of opportunities to be involved also in many other communities.

Table 2

Number of senior communities per 1000 unemployed seniors in statistical regions of Latvia

No.	Region	Number of unemployed pensioners	Number of senior communities (NGOs)	Number of senior communities per 1000 unemployed seniors
1.	Riga	166636	35	0.21
2.	Pieriga	91001	95	1.04
3.	Vidzeme	61068	62	1.02
4.	Kurzeme	75739	58	0.77
5.	Zemgale	68196	63	0.92
6.	Latgale	92730	48	0.52
7.	Latvia	555370	361	0.65

Source: author's calculations based on data of the Central Statistical Bureau of Latvia (2011) and incoming documents of the 11th Saeima (the Parliament of the Republic of Latvia) (2013, 2014)

Document analysis of available documents of the 11th Saeima reveals that there are no registered senior communities in seven rural municipalities of 109; however, seniors have opportunity to take part in other rural initiative groups. The number of senior communities in rural municipalities determines the fact that seniors are eager to realize community aims and tasks by consolidating individual capacities of community members. The research results approve an interconnection: the more successful cooperation between local governments and seniors, the more productive activities of senior communities in rural areas. More frequently activities of senior communities are related to *life-long learning* where acquiring of IT skills in cooperation with Lattelecom Ltd prevail (activity has been realized within a framework of the project "Piesledzies, Latvija!"). According to unpublished data of Lattelecom Ltd, almost half (47%) of seniors in age 55-74 still have never used Internet. Therefore developing IT skills (usage of a computer in particular) expands senior opportunities to gain necessary skills for everyday communication with relatives, reading news and searching for information, paying bills on Internet or raising their competitiveness in the labour market. In the interview the chair of the board of the senior society "Rigas aktivo senioru alianse" (RASA) ("Alliance of Riga Active Seniors") Terezija Mackare informed that since 2015 society was responsible for further realization for the Lattelecom Ltd project. Thus, the society has accepted great challenge, which is to ensure that 2000 seniors will acquire IT skills. In rural municipalities senior communities in cooperation with local governments organize projects where seniors acquire health studies, Nordic walking, handcrafting (e.g. decoupage, crochet etc.), and English. The most frequent activities are sharing views, experience exchange trips to other municipalities or abroad, thematic evening, days of senior sports, exhibitions of handicrafts and cookery. Next section will focus on the best practices of senior activities targeted on seniors from rural areas.

3. Experience of best practice in senior communities for more successful ageing in rural areas in Latvia

Capability of senior communities is more obvious in cultural and social dimensions, also political dimension (involvement in decision making at different levels) is strong. Economic capability is rather weak. However, the study revealed good examples in every dimension of capability. For example, senior society "Silukalna zilais lakatins" in Rieбини municipality (Latgale region) has defined its aims in all dimensions of capability: defence of senior social-economic rights for promoting pensioners' material and mental wellbeing; cooperation with local government; cooperation with other NGOs in local municipality; cooperation with other pensioners' organizations in Latvia; promotion of pensioners' participation in resolving social issues and organizing spare time activities; improvement of pensioners' mental life. This society is a good example of cooperation between municipality and NGO where apparently people of older generation are great and healthy support for local society.

Economic and social dimension of senior capability is evident in the performance of the society RASA in Riga. In cooperation with the municipality, it has developed nannies services

(called "Vecmaminu kontaktbirza" ("*Grannies contact bureau*")), which aims to educate seniors in psychology, family psychology, pedagogy, family and children rights, first aid and gerontology. At the end of this programme seniors receive certificate of life-long learning and afterwards receive support in seeking nanny's job. Recently the RASA has launched a new initiative: reconciliation of married couples in situation of crisis in their relationships.

The RASA has shared its experience in 2014 by organizing senior discussion – conference "Seniors in a Contemporary Changing World" for old people from Latvia and the EU countries. Positively that the RASA tends to diversify forms of senior activities which leads to social integration and establishes good cooperation with similar senior organizations in both urban and rural municipalities in Latvia by taking the leading role in organizing activities and initiatives. As the chair of the board of the RASA T. Mackare states, "*[..] we cannot do big things in this world but we can do small and with love.*" She is very optimistic about future activities: "*We plan to establish the Centre of Social Competences either with support of the government or not. This is intended as a pilot project in Latvia. The aim of the centre would be promotion of dialogue between the state, municipalities and non-governmental sector in order to support that part of civil society, which is not represented neither in sectoral trade unions nor the confederation of employers, and other NGOs, because it is behind the scope of these organizations. These groups are, for example, people with special needs, unemployed people, and sick people.*"

As a good example of political and economic dimension of senior capability is the so-called Senior Academy established in Naukseni (Vidzeme region). Ten years ago, seven leaders of former soviet collective farms and enterprises joined together, later involving also many other leaders and representatives of administrative institutions and councils, who were concerned about Valmiera city economic development. Senior Academy is not a closed society; it involves still working entrepreneurs, who have significantly contributed to the development of Valmiera.

In Jaunjelgava municipality (Zemgale region), the society "Institute of Women Rights" is an example of the best practice. This organization implemented the project "Senioru cels" ("Seniors' Way"). During the project seniors were trained in psychological motivation. The society organised discussions about the role of non-governmental organizations and development of civil society, there were workshops on culture of conduct and public communication.

Crucial aspect of successful ageing of society is senior willingness to be active and useful. For example, in Pargauja municipality (Vidzeme region) seniors create souvenirs for local government. In Balvi municipality (Latgale region) seniors in cooperation with local municipality organize activity "Balto zekisu svetki" ("Festivity of White Socks") where newborn babies are welcomed with senior made white socks. This nice tradition and experience was adopted also in Jelgava city (Zemgale region) by the city council. Thus, the best practice of one senior community has been adopted in another, this is one the criteria in the methodology of the best practice analysis.

Conclusions, proposals, recommendations

1. Senior communities are significant element of the political structure, which in rural municipalities performs as intermediate stage between individual seniors, small senior groups, municipalities and wider society. Activities of senior communities envisage well developed cultural and social capability of senior communities. They are visible also at political level; however, economic capability is rather weak.
2. More active senior communities are in Pierīga and Vidzeme regions but comparatively smaller activity was observed in Latgale region. Besides active involvement in senior organizations in rural areas, old people take part also in other local initiative groups. This sometimes is treated as alternative if there is no particular senior organization. This fact allows concluding that further investigations should be carried out to explore what is senior integration in local rural communities.
3. The more successful cooperation is between municipalities and senior communities, the more productive is performance of senior organizations in rural areas. Most of the senior activities are related to organizing life-long learning courses and thematic initiatives.
4. In order to promote inclusion of particular support instruments in development strategies of rural municipalities related to policy of successful ageing of society, the planning regions should be delegated a function of increasing seniors' quality of life and improvement of cooperation between senior communities at local and regional levels in order to disseminate the examples of the best practice.
5. The results allow confirming the assumption that performance of seniors and their communities have to be acknowledged as a significant resource turning problem of ageing society into opportunity within a future demographic context in Latvia.

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FACTORS WHICH INFLUENCE THE DEVELOPMENT OF SOCIAL INNOVATION IN LATVIA

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Abstract. The field of social innovation is a nascent but increasingly important one that evokes interest among practitioners, policy makers, and academics alike. However, a common understanding of the term social innovation itself has not yet emerged. Within the research social innovation is defined as new, sustainable and effective solution to pressing social problems in the society, and as a result of social innovation is created the social value. There is little conceptual work on the barriers to social innovation; thus, the aim of the research paper is to study the influencing factors of social innovation in Latvia. Social innovation is influenced by factors at the environmental, organizational, and individual levels. Social innovation factors which are related to the external environment are classified according to PEST analysis – political, economic, social and technological ones. Social innovation influencing factors which are related to the organization guide the identification of innovation influencing factors at the organizational level – resources, level of risk, social innovation strategy, social innovation management practice, organizational learning, and organizational culture. Social innovation influencing factors related to the individuals within the organization are related to employees' abilities, skills and attitudes. All mentioned factors influence social innovation capability and innovation performance in Latvia.

Key words: social innovation, influencing factors, social innovation capability

JEL code: 035, 031

Introduction

Almost all social problems are complicated, context-dependent, and cross-boundary. An individual or an organization alone cannot solve these problems effectively. Therefore, social innovation is becoming more important for economic growth. This is partly because some of the barriers (such as climate change, social exclusion, material poverty, health and wealth inequalities or ageing population) can only be overcome with the help of social innovation, and partly because of rising demands for types of economic growth that enhance rather than

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damage human relationships and wellbeing (Mulgan G. et al., 2006). These challenges are already swamping public budgets as well hampering states' competitiveness and economic growth in the long term. There is a growing recognition around the world that new and innovative approaches are required to meet the economic, social and environmental challenges now and in the future.

Discussions on social innovation have been on the rise both in academia and public discourse. Although literature dates back for decades, discussions and publications on social innovation have increased in recent years. Universities have established research centres on social innovation (e.g. INSEAD, Stanford), foundations and private centres are focusing on the topic of social innovation (e.g. Young Foundation, Centre for Social Innovation Toronto, Centre for Social Innovation Vienna), and governments are also engaged in establishing activities in the field (e.g. US Social Innovation Fund, Social Innovation within the Europe 2020 Flagship Initiative "The Innovation Union"). The concept of social innovation has received considerable attention in recent EU legislative proposals, recommendations, programmes and EU research projects. The Europe 2020 Strategy makes a strong commitment to promoting social innovation, and the European Commission's Innovation Union strategy clearly places innovation at the centre of the policy agenda for meeting social challenges affecting Europe and its Member States.

In Latvia there is a lack of both popular and scientific literature on social innovation. Some activities are taken by third sector organisations, e.g. Social Innovation Centre (SIC) aims at strengthening and disseminating the knowledge, promoting the international and national experience exchange and establishing the networking for social innovation, thus, enhancing the sustainable development of society. The Soros Foundation-Latvia is supporting some social innovative activities; however, social innovation is not defined in legal acts as one of the priorities for tackling social problems in society.

Besides, a common understanding of the term social innovation itself has not yet emerged in this field. Existing knowledge is mostly focused on business innovation rather than social innovation. Some of the insights gained into business innovation are relevant to the social field but there are also important differences. Since social innovation differs from business innovation, this research paper begins with defining and characterizing social innovation.

Yet, there is a remarkable dearth of analysis what kind of factors influence emergence and implementation of social innovation (Mulgan G. et al., 2006). In particular, there is little conceptual work on the barriers to social innovation. Different authors and, even the same authors in different papers, deal with this topic in different ways (Mulgan G. et al., 2006; Clark et al. 2008; Caulier-Grice J. et al., 2010) but without convergence towards a common conceptual framework (Mendes A. et al., 2012). The aim of the research paper is to study the influencing factors of social innovation in Latvia. The following tasks are advanced to achieve the set aim:

- 1) to study the essence of social innovation;

2) to determine factors influencing social innovation in Latvia.

Hypothesis of the research paper: the capability and performance of social innovation is determined by external, organizational and individual factors.

The following research methods were employed in the present research: the monographic and descriptive method, analysis and synthesis, logical, comparative analysis and PEST analysis. The information sources used in producing the research paper: the European Commission's legal and strategic policy documents, research findings on the topic of social innovation, and other information sources referred to in the list of references.

1. The concept of social innovation and its definition elements

Contributions on social innovations are rooted in different disciplines such as sociology, business administration and economics, social work and political science. The meaning of the term 'social innovation' varies across these different research fields. Several attempts to structure the field of social innovation have been made, for example by S. Dedijer (1984), W. Zapf (1987, 1991), F. Moulaert and J. Nussbaumer (2005), E. Pol and S. Ville (2009), D. Rüede and K. Lurtz (2012) and E. Butkevičiene (2009) but there remains inconsistency among them about how to categorize the different meanings. In addition, these categorizations often lack a systematically grounded methodology that covers the social innovation concept in various disciplines at the same time.

Synthesized from scientific literature, social innovation has several defining characteristics. These characteristics distinguish social innovation from the other innovation such as annual policies, recurring projects, and routine activities.

Important characteristic of social innovation is *newness*. Social innovations can be broadly described as "the development of new concepts, strategies and tools that support groups in achieving the objective of improved well-being" (Dawson P., Daniel L., 2010) or "new ways of doing things, especially new organizational devices, new regulations, new living arrangements that change the direction of social change, attain goals better than older practices, become institutionalized and prove to be worth imitating" (Zapf W., 1991). As J. Schumpeter (1942) defines, innovation is considered to be a new combination of new elements (the introduction of a new good, the introduction of a new method of production, the opening of a new market, the conquest of a new source of supply of raw materials and carrying out of the new organization of any industry) which were not seen in any previous economic system. The 'newness' element differentiates innovation from ordinary development programmes. Social innovation needs to be perceived as 'new' in the context of the related community; it does not have to be 'new' for the others. It is not important whether the newness comes from an incremental or a radical change, i.e. a small adjustment in an ordinary behaviour or an evolutionary project.

Social innovation creates "changes in (human) structure and organization" (Simms J. R., 2006), thereby improving the living standards and promoting human resource development (Mahdjoubi D., 1997). Social innovation is "the guided change process, preferably supported

by all involved and affected human beings that creates significant change in existing action structures and conditions in the social system based on ethical value judgements, contents and programmes" (Maelicke B., 1987). It can be concluded that the concept of social innovation includes not only the element of novelty but it is also due to the *introduction of changes*. The scale of change can be differentiated – from changes at the micro level to the macro level (Bulut C. et al., 2013; Khutrakun A., 2013). A micro aspect would be, for example, to have a worthwhile job, whereas environmental issues and political stability would be examples for macro aspects (Pol E., Ville S., 2009).

One of the shared assumptions is that innovations can be used to address challenges in society, to benefit groups that are struggling in society, and to improve the well-being of individuals. Several researchers emphasize the importance of social innovation in *solving social problems*. Social innovation is defined as a new idea that works to meet pressing unmet needs and improve peoples' lives (Mulgan G. et al., 2007; Tanimato K., Doi M., 2007; Neamtan N., 2003). Social innovations can be directed at social ills such as hunger, poverty, disease, lack of education, at issues such as social exclusion, homelessness, addictions, illiteracy and unemployment or at climate change, the worldwide epidemic of chronic disease, and widening inequality (Murray R. et al., 2010). Also, ageing populations, affluence, including obesity, and a lack of community cohesion are mentioned as challenges in the European context (Rüede D., Lurtz K., 2012).

Social innovation must *create value to the whole community*. People who engage in a social innovation process do not intend to take benefits for their own; instead, they try to create valuable social innovation for the whole community. It is possible for everyone to reap such a benefit. There is no financial gain or loss when it comes to social innovation (Khutrakun A., 2013). Essentially, social innovation creates value because it changes people's belief so that they behave in a better way.

J. Phills et al. (2008) define social innovation as a novel solution to a social problem that is more effective, sustainable, and for which the value created accrues primarily to society as a whole. It can be concluded that important element for social innovation is *sustainability and effectiveness*.

Social innovation should be based on *social motive* (Khutrakun A., 2013). Social innovation is about the satisfaction of basic needs and changes in social relations within empowering social processes; it is about people and organisations who are affected by deprivation or lack of quality in daily life and services, who are disempowered by lack of rights or authoritative decision-making, and who are involved in agencies and movements favouring social innovation (Moulaert F., Nussbaumer J., 2005).

Social innovation characterizing elements are summarized in Table 1.

Table 1

Characterizing elements of social innovation

Economists	Definition of social innovation	Characteristics of social innovation
<i>J. Schumpeter (1942)</i>	A new combination of new elements which were not seen in any previous economic system.	<i>Newness, novelty</i>
<i>S. D. Conger (2009)</i>	New laws, organization or methods that cause changes in joint or individual relationships.	<i>Introduction of change</i>
<i>J. Howaldt, H. Jacobsen (2010)</i>	A new combination and/or new configuration of social practices in certain areas of action or social contexts prompted by certain actors or constellations of actors in an intentional targeted manner with the goal of better satisfying or answering needs and problems than is possible on the basis of established practices.	<i>Solving social problems</i>
<i>G. Mulgan et al. (2006)</i>	New ideas that work to meet pressing unmet needs and improve peoples' lives.	<i>Create benefit to the whole society</i>
<i>J. Phills et al. (2008)</i>	A novel solution to a social problem that is more effective, sustainable, or just than existing solutions and for which the value created accrues primarily to society as a whole rather than a private individuals.	<i>Sustainability and effectiveness</i>
<i>A. Khutrakun (2013)</i>	Social innovation has three defining characteristics: social value, newness, and social motive.	<i>Social motive</i>

Source: author's construction based on J. Schumpeter (1942), S. D. Conger (2009), J. Howaldt, H. Jacobsen (2010), G. Mulgan et al. (2006), J. Phills et al. (2008) and A. Khutrakun (2013)

After summarising theoretical studies, the author has developed the following definition of social innovation – *a social innovation is a new, sustainable and effective solution to pressing social problems in the society, and as a result of social innovation is created the social value.*

2. Characteristic of factors influencing social innovation

A good idea is not quite enough to change practice. Many efforts to implement social innovation have not reached their full potential due to a variety of challenges inherent in implementation process (Aarons G. A. et al., 2011). In some cases, this is because they are too expensive, or are not wanted, or simply because they are not good enough in comparison to existing alternatives. But many have raised concerns that there are more fundamental barriers in terms of taking ideas from inception to social impact. Some point to the fact that the impacts of social innovation are hard to measure, or difficult to quantify financially. Others have argued that social innovations are inherently risky because their outcomes are uncertain and unpredictable, and it is difficult to form coalitions of supporters around the social innovation. Others still point to organizational cultures which stifle creativity and risk taking and limit the number and quality of social innovations which emerge. Others still point to the lack of adequate mechanisms to promote, adapt and grow social innovations. However, in order to support the spread of social innovation it is necessary to better understand what the

influencing factors are. Therefore, this part of research paper focuses on the factors which influence the social innovation in Latvia.

Social innovation is influenced by factors at the environmental, organizational, and individual levels (Damanpour F., 1991, 1996; Damanpour F., Schneider M., 2006). Consequently, a valid and meaningful examination of factors to social innovation have to take into account those three levels of analysis. Social innovation factors which are related to the external environment are classified according to PEST analysis. Social innovation influencing factors which are related to the organization are connected with managerial levers of dynamic capabilities, which guide the identification of innovation influencing factors at the organizational level. Social innovation influencing factors related to the individuals within the organization are related to employees' abilities and attitudes.

Factors at the external environmental level. Social innovation is affected by various macro-level factors. A PEST analysis of the factors determining the development of social innovation in external environment is performed in the research paper.

Political and legal factors include public discourse, policy agendas, and legislation in favour of social innovation, policy coordination and legal recognition of social innovation. It should be stressed that the state structures and practices may sometimes hamper innovative approaches (Glänzel G. et al., 2013).

In the EU, social innovation is a central element of the Europe 2020 10-year strategy for smart, sustainable and inclusive growth. This strategy's goal is both to address shortcomings of the European growth model, painfully exposed by the recent economic crises, and to create the conditions for a different type of growth. A strategy for smart, sustainable and inclusive growth, identify research and innovation as one of five main targets, has given rise to the notion of an 'Innovation Union', and informs the research framework of Horizon 2020. However, in Latvia there are several obstacles that hinder development of social innovation.

First, in Latvia there is a *lack of legal recognition of social innovation*. A. Hubert et al. (2011) refer it to the lack of a "common framework to define important sectors and players such as social entrepreneurs and enterprises, or third sector or non-profit sectors". In Latvia, social innovation is not defined as one of priorities how to mitigate social problems and facilitate balanced development. This lack of legal recognition impacts by many levels: lack of data to assess the size and impact of the social innovation sector, access to finance and lack of supply of appropriate education.

Second, there is insufficient social innovation "*policy coordination*" (cooperation in the policy domain) and "*operational coordination*" (networking between social innovators, financing institutions, incubators). It means that the promotion of coordination among the regional, national and the EU levels should be made.

Economic factors. First, economic factors refer to the *availability of external funds* for social innovation (Dufour S. et al., 2014; Hubert A. et al., 2011). Social innovators usually need capital with very low or no return expectations, because their income situations often do

not allow for generating profits. Social innovation takes time to develop, often more time than technological/business innovations. Therefore, capital with long time horizons is needed. For G. Mulgan et al. (2006) the potential supporters of social innovation such as foundations and public agencies are less likely to support social innovation because they lack the incentives to do so. A. Hubert et al. (2011) provide the following reasons why funding social innovation is challenging: social innovation tends to be bottom-up, it is promoted by non-traditional business organisations, it is “problematic in the measurement of its impact”, it “starts from a limited size”, it is “not perceived as self-sustainable/replicable” and there is a “lack of recognition of the social dimension in innovation-related funding schemes and programmes”. Those reasons explain the lack of funding for social innovation in Latvia. In Latvia, activities related to social innovation are periodically held, mainly with funding from the EU Funds, however, information on these activities is not widely available. Some social innovation initiatives were supported by the Soros Foundation – Latvia, implementing such programmes as “Grow, Latgale” (“Audz, Latgale”) and “Brigade”.

Second, there is high *dependence of third sector organisations on grants* for developing social innovations (Mendes A. et al., 2012). It can lead to the fact that social innovation cannot be implemented in practice because of financial reasons.

Third, *finance instruments* have an *influence on social innovators’ degree of autonomy* and flexibility in decision-making. As social innovation is a highly complex process with the danger of getting more complicated when new decision-makers come ‘on board’, social innovators usually strive for less investor involvement and a high level of autonomy. There are also normative factors involved that lead innovators to strive for autonomy from external influence (e. g. the fear of mission drift).

Social and cultural factors. First, there is *insufficient information* on social innovation in Latvia which leads to *the lack of data and measurement*. Also, in universities there is lack of courses on social innovation. A. Hubert et al. (2011) provide the following explanations for that: lack of a clear definition of the concept of social innovation, the impact of social innovation is hard to quantify, there is an insufficient culture and not enough tools for ex-post evaluation of projects related to social innovation and boundaries and players of social innovation are not well defined.

Second, a significant problem is the *fear of innovation, risk of changes*. According to G. W. Fairweather (1972), the adoption of any innovation requires society’s dissatisfaction with its current practices and the perception that the innovation can fulfil a basic need. In any successful social system many people will have high stakes in stability. The risks of change will appear great compared to the benefits of continuity (Mulgan G. et al., 2006).

Third, Mulgan et al. (2006) identified *values and norms*, or ‘people’s minds’ as another barrier: “Any social system comes to be solidified within peoples’ minds in the form of assumptions, values and norms. The more the system appears to work, giving people security and prosperity the more its norms will become entrenched as part of peoples’ very sense of

identity. Organisations then become locked into routines and habits that are as much psychological as practical, and which become embedded in organisational memories”.

However, social needs become more pressing and, thus, necessity for alternative solutions. The global crisis has made clear that most of the challenges we face are increasingly social. Among the most prominent are the fight against increasing unemployment, aging and climate change. Increasing unemployment is often linked to increased crime and social exclusion with long lasting consequences not only for those losing their job but also for their children who have fewer opportunities in society. Aging of the population and its associated health costs were already a problem before the crisis but it is even more problematic in view of the sustainability of public finances.

Fourth, *collaboration skills* between different parties are important. Different authors argue that without effective networks and intermediaries, it is very difficult to connect ideas, resources and people, which they argue is a pre-condition for the development and growth of social innovations. This role of networks and intermediaries means the clustering of organisations working across institutional barriers to generate and effectively implement new ideas to respond to social needs. J. Caulier-Grice et al. (2010) mention a special kind of connection that is needed for scaling up social innovation: the connection between what they call the “bees”, that is, “small organisations, individuals and groups who have new ideas, and are mobile, quick and able to cross pollinate” and to find what they call the “trees”, that is, “big organisations – such as governments, companies or non-governmental organisations, which are generally poor at creativity but good at implementation and which have the resilience, roots and scale to make things happen.” This pays tribute to social innovation as an overlapping concept, in which multiple stakeholders are involved. Although competition and connected organizational rise and decline will occur in the field of social innovation, the focus should lie on how the different strengths of actors can be brought together.

Technological factors. A study conducted by B. Hynes (2009) reveals that the Internet is an important factor affecting social innovation. The advancement of technologies and communication *facilitates the exchange of information and experiences*. Developments in information and communications technologies have created exciting *possibilities for improving the ability to meet social needs*, such as e-health in health care and virtual schools in education.

Factors at the organizational level. At the centre of the value-added chain of social innovation is the innovating organization because social innovation very often emerges from social enterprise and NGO (Leadbeater, 2007). There are defined several sub-categories for the identification of social innovation barriers at the organizational level: resources, level of risk, social innovation strategy, social innovation management practice, organizational learning, and organizational culture.

Several researchers especially stress the difficulty to get *sufficient resources* for social innovation development. M. Moore and F. Westley (2011) give several examples of the types

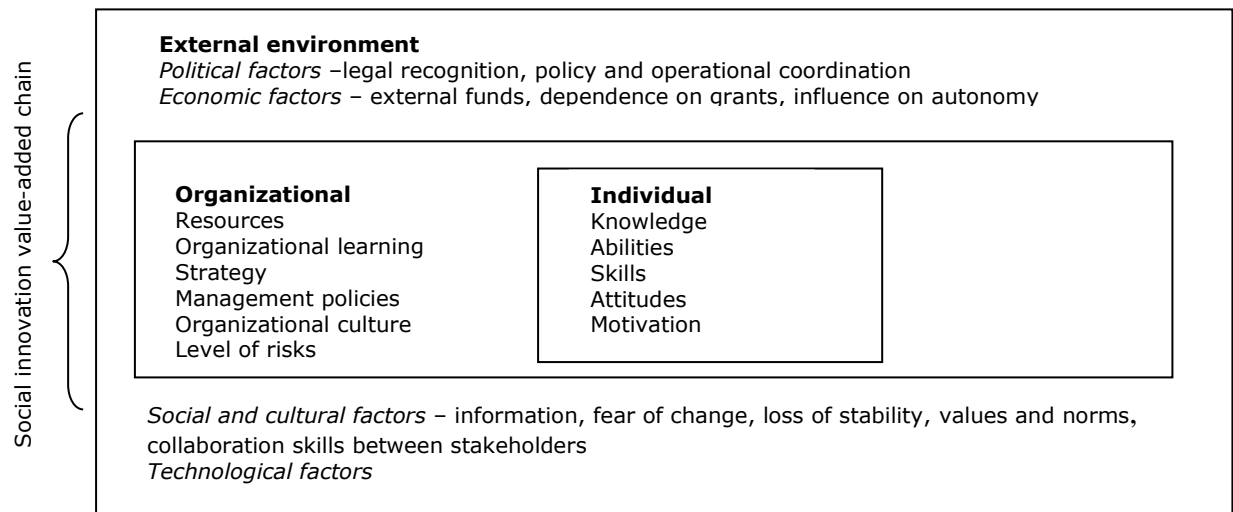
of resources that may be lacking – financial capital, social capital, lack of new ideas or visions, insufficient efforts to build political will and public support, unsuccessful search for early adopters of the innovation and difficulty to create energy and momentum around the innovation.

Some of organisational barriers are linked to the *level of risk* or uncertainty that is present during the social innovation process. The innovation process is not predictable, and will often involve failure. In some organisations, this risk of failure is too great to bear (Mende A. et al., 2012). Here, G. Mulgan et al. (2006) point out the important role the public sector can have in supporting social innovation against the problems due to risk and uncertainty: through public funding and public contracting, the public sector can limit those problems. However, to play this role well, public funding should not crowd out other types of funds. Also, public contracting should reward outcomes and should not limit end users choices.

Factors at the individual level. The use of the micro-level perspective and a focus on different individual characteristics emphasize that social innovation depends on the knowledge, abilities, skills, motivation and the attitudes of individuals (Anderson et al., 2004; Dufour S. et al., 2014). J. Caulier-Grice et al. (2010) stress that there are lack of people with the skills in the many dimensions of innovation – from finance to development of projects and business models, to design and marketing. A lack of such characteristics for social innovation may constitute a significant barrier. For innovators themselves the barriers to change often look like personal failings (their stupidity, rigidity and lack of imagination are all that stands between a brilliant new idea and its execution) (Mulgan G. et al., 2006).

Individuals (groups of individuals) are not considered to constitute a separate level of analysis in the proposed model but rather, are embedded within the organizational level.

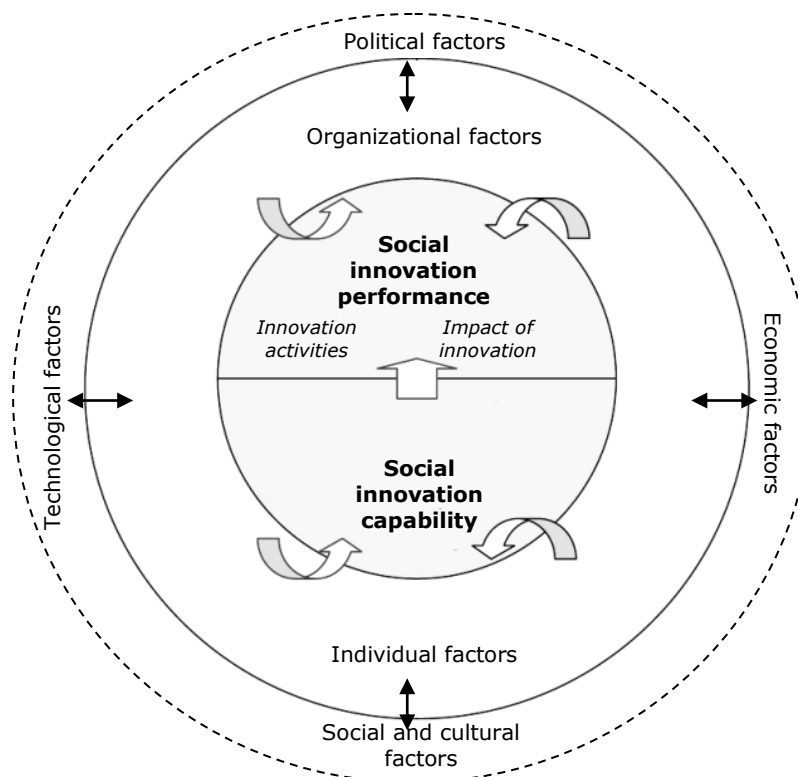
Figure 1 summarizes the proposed model, which integrates and structures the three levels of analysis and the respective sub-categories.



Source: author's construction based on Hueske A. K. et al., 2014

Fig. 1. Social innovation influencing factors at the environmental, organizational, and individual levels

All above mentioned factors influence social innovation capability and innovation performance (Figure 2).



Source: author's construction

Fig. 2. Social innovation influencing factors model

Social innovation capability is the comprehensive set of characteristics that facilitate and support innovation performance. Social innovation capability is influenced by the identified factors (external, organizational or individual). It means that social innovation will be able to develop and implement its potential only if favourable external, organizational and individual conditions and preconditions are ensured. The stronger the innovation capability, the more effective will be their innovation performance.

Conclusions

1. Among scientists, there is no consensus on the definition of social innovation. The author developed her own definition of social innovation that is appropriate for the situation in Latvia – a social innovation is a new, sustainable and effective solution to pressing social problems in the society, and as a result of social innovation is created the social value. The definition of social innovation is based on its characterizing elements – newness, sustainability and effectiveness, social motive, introduction of change, creation of benefit to whole society and ability to solve social problems.
2. The proposed social innovation model structures social innovation factors at three levels of analysis: the external environment (political and legal, economic, social and cultural, technological factors), the organizational, and the individual. All mentioned factors influence innovation capability and innovation performance in Latvia.
3. One of the biggest political and legal obstacles for social innovation in Latvia is lack of legal recognition. Social innovation is not defined as one of priorities how to mitigate social problems; there is insufficient social innovation “policy coordination” (cooperation in the policy domain) and “operational coordination”. This explains the fact that activities related to social innovation are held periodically.
4. Social innovation development is significantly influenced by external funds. In Latvia social innovation activities mainly are funded from the EU Funds and foundations, however, special support instruments should be made for development of social innovation at national level.
5. There is insufficient information on social innovation in Latvia which leads to the lack of data and measurement. Social innovation development depends also on society values and norms, their ability to take a risk and accept changes. For successful development of social innovation collaboration skills between different stakeholders are very important.
6. The advancement of technologies and communication facilitates the exchange of information and experiences on social innovation. Developments in information and communications technologies have created exciting possibilities for improving the ability to meet social needs.
7. The social innovation depends on the different factors in organizational level (resources, level of risk, social innovation strategy, social innovation management practice,

organizational learning, and organizational culture) and knowledge, abilities, skills, motivation and the attitudes of individuals. A lack of such characteristics may constitute a significant barrier for social innovation.

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