



ECONOMIC SCIENCE FOR RURAL DEVELOPMENT

Proceedings of the International Scientific Conference

Sustainability

**Integrated and
Sustainable Development**

**Home Economics and
Sustainable Consumption**



No 23

“ECONOMIC SCIENCE FOR RURAL DEVELOPMENT”

Proceedings of the
International Scientific Conference

SUSTAINABILITY

- 1. Integrated and Sustainable Development**
- 2. Home Economics and Sustainable Consumption**

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Process – April 22-23, 2010

Latvia University of Agriculture, 2010
Agricultural University of Szczecin, 2010
BA School of Business and Finance, 2010
Baltic International Academy, 2010
Daugavpils University, 2010
Fulda University of Applied Sciences, 2010
Higher School of Economics and Culture, 2010
Institute of Economics of Latvian Academy of Sciences, 2010
Institute for National Economy Research, 2010
Klaipeda University, 2010
Latvian State Institute of Agrarian Economics, 2010
Riga International School of Economics and Business Administration, 2010
Lithuanian Agricultural University, 2010
Liverpool John Moores University, 2010
Munster University of Applied Sciences, 2010
Research Institute of Biotechnology and Veterinary Medicine "Sigra", 2010
Rēzekne High School, 2010
Riga Technical University, 2010
Szent Istvan University, 2010
Tallinn University, 2010
Tallinn University of Technology, 2010
University of Agriculture in Krakow, 2010
University of Bonn, 2010
University of Latvia, 2010
University of Ljubljana, 2010
University of the Western Cape, 2010
Warsaw University of Life Sciences, 2010
West University of Timisoara, 2010

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Priekšvārds

Latvijas Lauksaimniecības universitātes (LLU) Ekonomikas fakultātē līdz ar ikgadējo, tradicionālo starptautisko zinātnisko konferenci „Ekonomikas zinātne lauku attīstībai” iznāk tajā prezentējamo pētījumu starptautiski recenzētie zinātniskie raksti. **Šogad konference ieiet otrajā gadu desmitā un tiek organizēta 11. reizi.** Šajā gadā konferencē piedalās zinātnieki no Eiropas un Dienvidāfrikas, kuri pārstāv ne vien ekonomikas zinātņi tās apakšnozarū daudzveidībā, bet arī pētījumos ir piepulcinājuši kolēģus no sociālo un citu zinātņu nozarēm, tā apliecinot mūsdienu zinātnes starpdisciplināro un multidimensiālo attīstību. Konference ir veltīta aktuālai lauku attīstības tematikai, tādēļ ir izdoti trīs secīgi laidieni (Nr. 21., 22. un 23.). Mūsu regulāro zinātnisko rakstu pirmais laidienis iznāca 2000. gadā.

2010.gada 22. un 23.aprīļa starptautiskajā zinātniskajā konferencē piedalās un savus zinātniskos pētījumu rezultātus prezentē profesori, zinātņu doktori, asociētie profesori, docētāji, doktoranti un citi pētnieki no šādām augstskolām un zinātniski pētnieciskajām iestādēm:

- Latvijas Lauksaimniecības universitāte
- Baltijas Starptautiskā akadēmija
- Banku augstskola
- Biotehnoloģijas un veterinārmedicīnas zinātniskais institūts “Sigrā”
- Daugavpils universitāte,
- Ekonomikas un Kultūras augstskola
- Fuldas Profesionālā universitāte
- Klaipēdas universitāte
- Krakovas Lauksaimniecības universitāte
- Latvijas Universitāte
- Latvijas Valsts Agrārās ekonomikas institūts
- Latvijas Zinātņu akadēmijas Ekonomikas institūts
- Lietuvas Lauksaimniecības universitāte
- Liverpūles Džona Moora Universitāte
- Ļubjanas universitāte
- Minsteres lietišķo zinātņu universitāte
- Rēzeknes Augstskola
- Rietumkeiptaunas universitāte
- Rīgas Tehniskā universitāte
- Rīgas Starptautiskā ekonomikas un biznesa administrācijas augstskola
- Szent Istvan universitāte
- Ščecinas Lauksaimniecības universitāte
- Tallinas universitāte
- Tallinas tehniskā universitāte
- Timisoara Rietumu Universitāte
- Varšavas Dzīvības zinātņu universitāte

Foreword

Every year the Faculty of Economics, Latvia University of Agriculture holds the international scientific conference “Economic Science for Rural Development” and publishes internationally reviewed papers of scientific researches, which are presented at the conference. **This year the conference enters the second decade and is organised for the 11th year running.** Researchers from Europe and South Africa representing not only the science of economics in the diversity of its sub-branches have contributed to the conference this year; they have expanded their studies engaging colleagues from social and other sciences, thus confirming inter-disciplinary and multi-dimensional development of the contemporary science. The conference is dedicated to topical themes of rural development; hence the research results are published in three successive volumes (No. 21, 22 and 23). The first volume of scientific conference proceedings was published in 2000.

Professors, doctors of science, associate professors, assistant professors, PhD students, and other researchers from the following higher education and research institutions participate in the International Scientific Conference held on April 22-23, 2010 and present their results of scientific researches:

- Agricultural University of Szczecin
- BA School of Business and Finance
- Baltic International Academy
- Daugavpils University
- Fulda University of Applied Sciences
- Higher School of Economics and Culture
- Institute of Economics, Latvian Academy of Sciences
- Klaipeda University
- Latvia University of Agriculture
- Latvian State Institute of Agrarian Economics
- Lithuanian Agricultural University
- Liverpool John Moores University
- Munster University of Applied Sciences
- Research Institute of Biotechnology and Veterinary Medicine “Sigrā”
- Rēzekne High School
- Riga International School of Economics and Business Administration
- Riga Technical University
- Szent Istvan University
- Tallinn University
- Tallinn University of Technology
- University of Agriculture in Krakow
- University of Latvia

Konferencēi izvēlēti sekojoši aktuāli temati:

- Ražošana un sadarbība lauksaimniecības primārajā, sekundārajā sfērā
- Integrēta un ilgtspējīga attīstība
- Finances un nodokļi
- Izglītība un zinātne laukiem;
- Resursi un ilgtspējīgs patēriņš
- Mājas ekonomika

Pirmo reizi atsevišķi pārstāvēta mājas ekonomikas un ilgtspējīga patēriņa sekcija, kuras darbības nodrošināšanā iesaistījušies pasaulē atzīti mājas ekonomikas un patēriņa ekonomikas pārstāvji ilggadīgas sadarbības partneri no Vācijas, Lielbritānijas, Igaunijas. Konferences vārds pirmo reizi izskanēja arī visā plašajā pasaulē, arī Āfrikā un Āzijā.

Starptautiskās zinātniskās konferences zinātniskuma un starptautiskiem standartiem atbilstošu zinātnisko darbu prezentēšanas nodrošināšanai veikta vispusīga iesniegto zinātnisko rakstu starptautiska un starpaugstskolu recenzēšana. Šajā nolūkā lielākā daļa zinātnisko rakstu ir angļu valodā.

Katru iesniegto zinātniskā raksta manuskriptu vērtēja (recenzēja) parasti viens autora valsts recenzents un otrs – citas valsts vai citas augstskolas recenzents. Pretrunīgu recenziju gadījumā darbs tika nodots vēl trešajam recenzentam. Recenzenti darbu autoriem bija anonīmi. Katram autoram tika nosūtīti recenzentu iebildumi vai ieteikumi. Pēc uzlabotā (galīgā) varianta un autora paskaidrojuma saņemšanas katru zinātnisko rakstu vērtēja šīs konferences zinātnisko rakstu redakcija.

Starptautiskās zinātniskās konferences „Ekonomikas zinātne lauku attīstībai” visi zinātniskie raksti sakārtoti trijos tematiskajos laidienos:

**Nr.21. Ražošana un nodokļi:
Ražošana un sadarbība primārajā,
sekundārajā sfērā
Finances un nodokļi**

**Nr.22. Resursi un izglītība
Resursi
Izglītība un zinātne laukiem**

**Nr.23. Ilgtspēja
Integrēta un ilgtspējīga attīstība
Mājas ekonomika un ilgtspējīgs patēriņš**

- University of Ljubljana
- University of the Western Cape
- Warsaw University of Life Sciences
- West University of Timisoara

The following topical themes have been chosen for the conference:

- Primary and secondary agricultural production and cooperation;
- Integrated and sustainable development;
- Finance and taxes;
- Education and research for the countryside;
- Resources and sustainable consumption;
- Home economics.

The branch of Home economics and sustainable consumption is represented for the first time in the conference thanks to the world recognised representatives and long-term cooperation partners in the sphere of home and consumption economics from Germany, the United Kingdom, and Estonia. For the first time the conference resounded on the worldwide scale, also in Africa and Asia.

The comprehensive reviewing of submitted scientific articles has been performed on international and inter-university level to ensure that only high-level scientific and methodological research results, meeting the requirements of international standards, are presented at the conference. Therefore the majority of articles are in English.

Every submitted manuscript has been reviewed by one reviewer from the author's native country or university, while the other reviewer came from another country or university. The third reviewer was chosen in the case of conflicting reviews. All reviewers were anonymous for the authors of the articles. Every author received the reviewers' objections or recommendations. After receiving the improved (final) version of the manuscript and the author's comments, the Editorial Board of the conference evaluated each article.

All the papers of the international scientific conference “Economic Science for Rural Development” are arranged into the three following thematic volumes:

**No. 21 Production and Taxes:
Primary and Secondary Production and
Cooperation
Finance and Taxes**

Rakstu publicēšana pirms konferences sekmēs tās norisi, domu apmaiņu, rosinās diskusijas, ekonomikas zinātnieku starptautisko sadarbību. Zinātniskajos rakstos izklāstītie pētījumi un to rezultāti kļūst pieejami plašam interesentu lokam visā pasaulē.

Konferences zinātnisko rakstu kopsavilkumi angļu valodā tiek ievietoti starptautiskās datu bāzēs:

- Apvienoto Nāciju Pārtikas un lauksaimniecības organizācijas (ANO FAO) starptautiskā informācijas sistēma lauksaimniecības zinātnes un tehnoloģijā AGRIS (International Information System for the Agricultural Sciences and Technology) (www.fao.org/agris/) un speciāli akadēmiskajām augstākajām mācību iestādēm, visaptverošā zinātniskā, daudznozaru pilnu tekstu datubāzēs:
- (EBSCOHost Academic Search Complete) un
- CABI PUBLISHING datubāzēs (<http://search.ebscohost.com/login.aspx?authype=ip,uid&profile=ehost&defaultdb=lbh>), kā arī
- CAB ABSTRACTS (CABA) ir bibliogrāfiskajā datubāzē <http://www.cabi.org/> vai <http://www.cabi.org/Default.aspx?site=170&page=1016&pid=2227>

Ceram saņemt atsauksmes un priekšlikumus turpmāko zinātnisko rakstu izdevumu sagatavošanai un starptautisko zinātnisko konferenču rīkošanai.

Pateicamies visiem rakstu autoriem, recenzentiem, programmas komitejai, redkolēģijai un tehniskajam personālam.

Konferences orgkomitejas vārdā

Aija Eglīte

Latvijas Lauksaimniecības universitātes Ekonomikas fakultātes asociētā profesore

No. 22 Resources and Education

Resources

Education and Research for the Countryside

No. 23 Sustainability

Integrated and Sustainable Development Home Economics and Sustainable Consumption

The publishing of the Proceedings before the conference will promote exchange of opinions, discussions, and collaboration of economic scientists on the international level. The research results included into the Proceedings are available worldwide to any interested person.

The abstracts of the conference proceedings provided in English are submitted to the international databases:

- AGRIS - International Information System for the Agricultural Sciences and Technology (www.fao.org/agris/) set up by the Food and Agriculture Organisation of the United Nations (FAO UN), and especially to the databases containing full research texts set up by the academic higher education institutions:
- (EBSCOHost Academic Search Complete) and
- CABI PUBLISHING databases (<http://search.ebscohost.com/login.aspx?authype=ip,uid&profile=ehost&defaultdb=lbh>) as well as
- CAB ABSTRACTS (CABA), which is a bibliographical database <http://www.cabi.org/> or <http://www.cabi.org/Default.aspx?site=170&page=1016&pid=2227>

We are open to comments and recommendations for the development of future conference proceedings and organisation of international scientific conferences.

We would like to thank all the authors, reviewers, members of the Programme Committee and the Editorial Board as well as supporting staff for their contribution organising the conference.

On behalf of the conference organisers

Aija Eglīte

Associate professor of Faculty of Economics Latvia University of Agriculture

Content

1. Integrated and Sustainable Development

Ivars Kassalis	<i>Industrial Clusters: an Opportunity to Stimulate Business Entities Integration and Competitiveness</i>	14
Inese Vaidere	<i>Common Agricultural Policy of the EU - Latvia's perspective</i>	22
Inese Haite	<i>Sustainable development planning experience in Rezekne</i>	30
Anatolijs Zabašta, Peteris Rivža	<i>Analysis of Information and Communication Technology Development in the Baltic Sea Region States</i>	37
Bartosz Mickiewicz	<i>Стратегическая цель национальной аграрной политики Польши и основные направления ее достижения (Strategic Aim of the National Agrarian Policy of Poland and Main Directions towards its Successful Implementation)</i>	45
Dagmara K. Zuzek	<i>Small and Medium-sized Enterprises versus Rural Development in the View of Sustainable Development</i>	51
Ivett Szeles, Sandor J. Zsarnoczai, Laszlo Guth	<i>Possibilities to Measure Regional Inequalities in Hunga</i>	56
Jurijs Grizāns, Jānis Vanags	<i>Perspectives of Modelling Latvian Rural – Urban Partnership in the Context of Sustainable Development</i>	63
Maiga Krūzmētra, Baiba Rivža, Sandija Rivža	<i>Mikrokredīta kustība kā viens no partnerības variantiem (Microcredit Movement as One of the Partnership Patterns)</i>	70
Sanda Čingule	<i>Dienvidlatgales sociālekonomiskā situācija teritorijas attīstības indeksa vērtējumā (Social and Economic Situation of the Southern Latgale in the Assessment of Territory Development Index)</i>	76
Inga Bērziņa, Anita Auziņa	<i>Theoretical Aspects of Innovative Design and Implementation Possibilities for Business Development in Latvia</i>	86
Olga Zadoroznaja	<i>Methodological Aspects for Estimation of the Nation's Competitiveness</i>	96
Jolanta Kondratowicz-Pozorska	<i>Growth of Ecological Production as a Factor Influencing Social and Economic Development of Rural Regions in Poland</i>	105
Inara Kantane, Biruta Sloka, Anastasija Vilcina	<i>Provision of Sustainable Development of Small and Medium Size Enterprises in the Regions of Latvia</i>	109

2. Home Economics and Sustainable Consumption

Francka Lovšin Kozina	<i>Home Economics Contribution to Improvement of People Life: the Case of Slovenia</i>	116
Kristi Paas, Kaie Pappel	<i>Teaching Competence of Financial Self-Management in Home Economics Lessons</i>	122
Cosmin Goian, Mona Vintila, Rodica Panelie, Daliana Istrat, Amalia Kugulis	<i>Communication Resources to Improve Eating Patterns in Rural Areas</i>	128
Barbara Freytag Leyer, Inga Schlecht, Joerg Hampshire, Allan Hackett, Pauline Lybert, Mark Meadows, Jackie Richards, Leonard Stevenson	<i>Access to Food and Health Information among Elderly People Living in Germany and the United Kingdom</i>	135
Anda Grīnfeldē	<i>Study of Elements of Pensioners Life Quality in the Regions of Latvia</i>	142
Aija Eglīte	<i>Patērētāja uzvedības izmaiņas mūsdienų apstākļos (Change of Consumer Behaviour Nowadays)</i>	151
Baiba Rivza, Krisjanis Aboltins	<i>Automotive Aftersales Market in the Regions of Latvia and Factors Affecting Market Development</i>	156
Gunta Grīnberga	<i>Problems of Customer-Guided Services Quality Assurance in Rural Extension</i>	163
Tatjana Staube, Ineta Geipele	<i>Territory Outlook for the Expansion of Large Scale Shopping Centres in Latvia</i>	169
Ligita Melece	<i>Some Issues of Food Consumption Expenditure and Consumption Inequality in Latvia</i>	176
Jānis Brizga	<i>Ecological Footprint: Sustainable Development Indicator of Consumption and Production</i>	184
Jānis Vanags, Sergejs Ņevojks	<i>Ilgspējīgu mājokļu būvniecības iespējas Latvijā (Perspectives for Building Sustainable Apartments in Latvia)</i>	191

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SUSTAINABILITY

1. Integrated and Sustainable Development

Industrial Clusters: an Opportunity to Stimulate Business Entities Integration and Competitiveness

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Abstract. The economic theory deals with two types of business entities integration: horizontal and vertical. Cluster environment may include both types of integration – companies producing the same products are interconnected, besides they co-operate with the suppliers and supporting entities, therefore increasing their competitiveness. Low level of business entities co-operation and business integration in the national economy of Latvia serves as an explanation for the current problems of Latvia's competitiveness. Companies are isolated into their approaches to enter a global market; however in many cases it is a hard task for a single company. It could be done in a simpler and more efficient way when companies and suppliers from a particular sector are interconnected in geographically proximate groups or clusters; thus the efficiency may be heightened, greater opportunities for innovation and export created, and favourable conditions reached for the integrated development. The world and the most advanced practice at Latvia is a good evidence for it. Business entities co-operation and integration is a gateway to integrated development and higher competitiveness on the global markets. Cluster environment is stimulating integrated development of all the business entities within the cluster – related entities (suppliers) as well as supporting entities (research and educational institutions etc.) are developing together with the growth of leading entities. The main research aim is to find out the industrial cluster influence on the integrated development. Different scientific research data and papers were analysed and experts interviewed to achieve this aim.

Key words: cluster, development, integration, company, competitiveness.

Introduction

After years of buoyant growth, falling unemployment, and rapidly rising living standards following country's accession to the European Union in 2004, Latvia have been hit hard by the global economic recession. In 2009, the country's GDP is expected to contract by 18% – more than most of the countries in Asia or Latin America (*The Global Competitiveness Report, 2009*). Rapid integration with the global economy sustained growth in Latvia over recent years has also made the country more vulnerable to contagion during the economic crisis that is now having dramatic consequences in Latvia.

Recent changes in the world's economy have stimulated searching of new approaches to find the best way out of the crisis. The words "competitiveness" and "integration" are mentioned more and more in the context of economy's recovery. These concepts may be discussed on different levels: countries, regions, industries and companies. In general the country's level of competitiveness can be measured by the Global Competitiveness Index – Latvia ranks only on the 68th place among 131 other countries in 2009. The index is significantly lower comparing to the major part of other European Union countries, including our neighbouring countries – Lithuania (53) and Estonia (35). It is necessary to dig more deeply in the components of competitiveness index to analyse the reasons for such a pure country's performance. There are many factors to be analysed but the one which is close related to the topic of the

conference and indicates integrated development tendency and co-operation is the *state of cluster development* index, which measures how prevalent are well-developed and deep clusters. Unfortunately this is one of the weakest points of the country – Latvia ranks only on the 113th place in the list (*The Global Competitiveness Report, 2009*).

Integration and co-operation level among companies is underdeveloped and in many cases the term "competitor" is similar to "enemy", which one shall weaken and destroy. It is not good environment for collaboration and development. Companies are isolated into their approaches to develop and enter new markets and in many cases these approaches could be more successful in case of a proper strategy selection. It is particularly important to consider the specifics of the national economy of Latvia – all the companies are small or medium sized according to the global market standards. It is essential for the companies to co-operate and integrate to increase export potential and be successful on the global markets.

The research object is states included in the Global Competitiveness Report with a special attention paid to the economic problems in Latvia. **The research subject** is cluster environment and integrated development. **The research hypothesis:** Cluster environment may enlarge the level of co-operation between different companies and induces integrated development of companies in diverse industries.

The research aim is to find out how cluster environment can stimulate companies' integrated development and competitiveness.

Several tasks have been advanced to achieve the set aim:

- to describe the most important aspects of cluster environment and integration;
- to evaluate "lessons learned" for the national economy of Latvia on the basis of successful cluster examples;
- to identify the linkage among cluster environment, integration, and competitiveness.

The basis of the research methodology is international and local scientific researches, papers and publications, and the author's research. The statistical data from international and local organisations are also used in the paper.

Industrial Clusters

Economists have always had an interest in factors governing in the economic development. This issue has been addressed at different levels, the company level (Rumelt R.P., Schendel D.E., Teece D., 1994), regional level (Berg L., 1987), and national level (Smith A., 1776). The economic development of regions receives more and more attention. One particular regional environment, to which a relatively prosperous economic development is often attributed, is a *cluster*, defined as a regional concentration of related economic activities (Krugman P., 1991). A large variety of clusters, each with different characteristics (Dijk M.P., Sverrison A., 2003), have been identified. Famous examples include Italian industrial districts (Brusco S., 1982), high tech clusters such as Silicon Valley (Saxenian A.L., 1992), and service clusters, such as the financial service cluster in London (Amin A., Thrift N., 1992).

Another famous economist and one of the cluster theory pioneers - M. Porter has developed a framework of competitiveness analysis (Diamond) which was based on the cluster approach. There are four interrelated areas in the *Diamond*: factor conditions, company strategy and rivalry, local demand conditions, and presence of related and supporting industries (Porter M., 1990).

An industrial cluster is an agglomeration of companies, suppliers, service providers, and associated institutions in a particular field. Often included are financial providers, education institutions, and various levels of government. These entities are linked by complementarities of different types and are usually located near each other (*Cluster Policy in Europe*, 2008).

Clusters can create tangible economic benefits:

- companies may operate with a higher level of efficiency, drawing on more specialised assets and suppliers with shorter reaction times than they would be able to in isolation;
- companies and research institutions may achieve higher levels of innovation. Close interaction with customers and other companies create more new ideas and create pressure to innovate, while the cluster environment lowers the cost of experimenting;

- the level of business formation tends to be higher in clusters. Level of trust is increasing within the cluster at the same time reducing the costs of failure, as entrepreneurs can fall back on local employment opportunities in many other companies in the same field.

A cluster initiative offers a comprehensive assessment of a cluster's markets, products, linkages, externalities, and synergies to help identify regulatory and business constraints, find new and wider market opportunities. Strategic initiatives may vary by different cases, but often focus on improving market information, workforce development, supply chain improvements, common quality standards, branding, integration, and process improvements.

Cluster initiative around the world shows that the crucial element of initiative development is the creation of a platform for meaningful dialogue within the cluster, to develop business strategies, and with the public sector, to discuss policy changes and possibly financial support (*Cluster Policy in Europe*, 2008). "Co-operation" and "competition" are the key words to describe cluster environment.

Generally, there are four cluster development stages (*Clusters for Competitiveness*, 2009):

- Cluster mapping and initial engagement. In this stage the main objectives are to establish cluster-economy embeddedness, bring key companies together around shared interests and test appropriateness of long-term project. Therefore it is important to identify key stakeholders/cluster leaders who will actively manage the cluster initiative in the future.
- Diagnostics and strategy formulation. Some main goals are to build co-operation among companies and raise common strategic sights. Although it is important to apply industry diagnostics and produce strategy. Applying diagnostic tools to assess the market trends, value chains and analysis of competitive positioning of the cluster are extremely important to develop reasonable cluster strategy. It would be very useful to study and analyse other successful cluster examples.
- Implementation of strategic policy, institutional initiatives. Process objectives are to implement strategic projects, mobilise investment, and improve the business environment. Mobilising cluster leaders to initiate productive public-private dialogues for implementation of policy and strategic initiatives is also important part of this stage. Cluster companies shall work together with governmental institutions to release immediate policy constraints and formulate long-term strategies and policy reform.
- Post-project sustainability. The process can be characterised by continuation of long-run investments and undertaking post-initiative projects. Due diligence and formalisation of the institutional structure of the cluster are essential for project sustainability. Social networking beyond the formal life of cluster initiative is necessary to ensure the cluster continuity.

However, cluster efficiency may depend on various external factors: local demand, development of related and supporting industries, and production

factors (capital and infrastructure) (Porter M., 1990). These are indicators which characterise an economic development stage of the region. Thus cluster efficiency is dependent on the economic development of the region.

According to the World Economic Forum methodology (*The Global Competitiveness Report*, 2009) it is possible to evaluate economic development of the region by the level of *GDP per capita*. In the regions, which are at the factor-driven and efficiency-driven stages, including the regions of Latvia, competitiveness is a condition for successful cluster development. Clusters are indicators of a region's competitiveness. For the regions, which are at innovation-driven stage, clusters are one of the factors increasing competitiveness level of the region (Boronenko V., Vilcina A., 2009). Economic development in different regions of Latvia is very diverse and it must be borne in mind when evaluating potential or existing cluster performance. However, successful cluster examples are possible to find in different economic development stages, even in the factor-driven stage economy (see Mongolia's example, Figure 3). Economic development stage of a region is not an invincible barrier for cluster development.

Integration

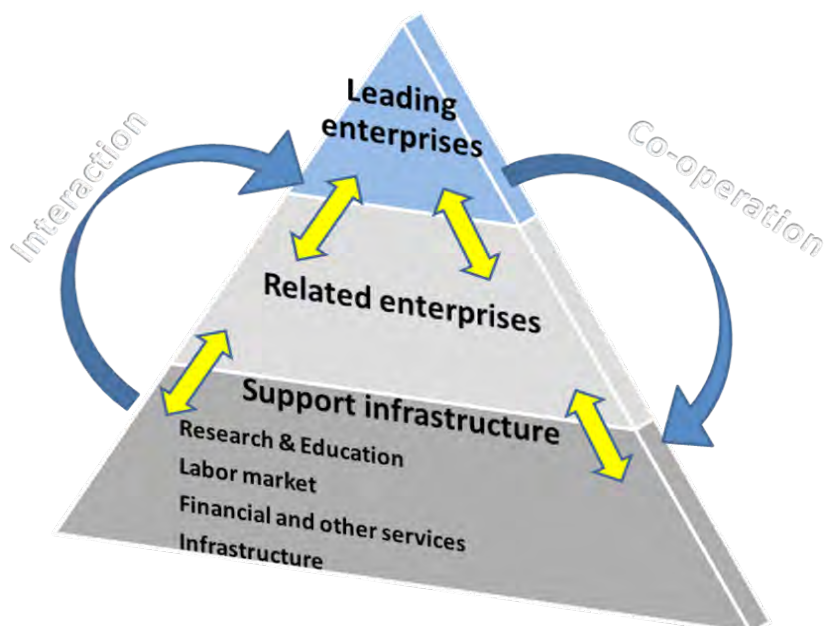
As it was mentioned in the introductory part – *state of cluster development* index characterises lack of sustainable and well performing clusters in the country's economy, which highlight low level of business entities co-operation and business integration in the national economy of Latvia. Regrettable is a fact that the country's state of cluster development index has scaled down since 2006 (the 45th place in 2006, the 86th place in 2007, and the 112th place in 2008),

and it is an indicator that business environment has become more unfavourable. It is not an easy task to find clear and trustable explanation for this fact. Explanation might be the fact that clusters in Latvia are mainly concentrated in the industrial economic sectors. Since 1990 industries proportion has been gradually decreasing in the national economy of Latvia and the share of service sector has become more significant (Sprogis A., 2009). Thus industrial activities stagnation is reducing opportunities for industrial cluster development. The main factors are lack of innovative products, out-of-date production equipment, significant start-up investments, poor experience on the global markets, and other factors.

Companies which are working in the cluster environment are tended to collaborate more deeply comparing with companies outside the cluster. This section describes the influence of the cluster environment on the integrated development of companies, and the interaction among the companies is shown in Figure 1.

The economic theory provides two types of business entities integration: horizontal and vertical. **Horizontal integration** strategy is a set of coherent, long-term objectives and action programme aimed at identifying and exploiting interrelationships across distinct but related business units (Hax C.A. & Majluf N.S., 1996). Therefore, a crucial first step in the definition of horizontal strategy is to identify the sources of possible interrelationships. M. Porter (1990) proposes three types:

- tangible interrelationships, arising from opportunities to share activities in the value chain;
- intangible interrelationships, involving the transference of management know-how among separate value chains;



Source: *Forming of Business Clusters*, 2007

Figure 1. Integration within the Cluster

- competitor interrelationships, stemming from the existence of rivals that actually or potentially compete with the company in more than one business year.

Collaboration between a buyer and a supplier has increased during recent years to become a natural part of the operations of any company developing complex products. The direction of **vertical integration** recognises two different ways of adding value to the inputs and outputs of the company, respectively: backward, which means getting closer to suppliers by incorporating into the company a given input to the current core; and forward, which involves a greater proximity to customers by putting a given output of the core under the company's umbrella. These two forms of vertical integration are sometimes referred to as upstream and downstream extensions (Hax C.A., Majluf N.S., 1996).

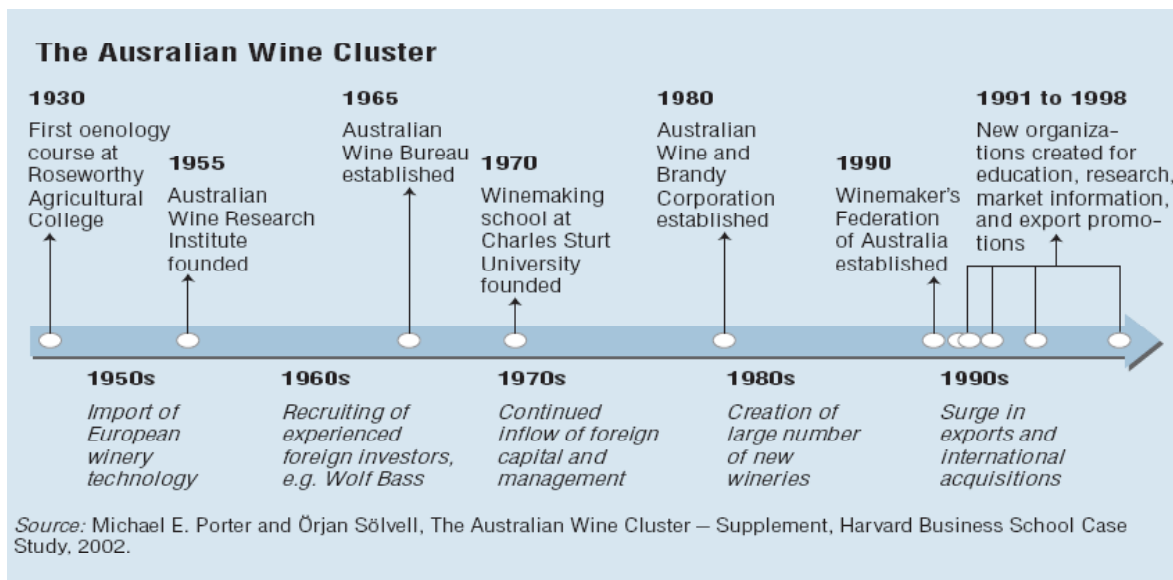
The major benefits of vertical integration are: cost reduction (cost to internalise economies of scale and scope, and avoid transaction costs from imperfect markets), defensive market power (provides autonomy of supply or demand as well as protection of valuables assets and services), offensive market power (allows access to new business opportunities, new forms of technology, and differentiation strategies), and administrative and managerial advantages (arising from a more simplified managerial infrastructure when basic tasks are brought inside as opposed to left outside the company (Lindquist A., Berglund F., 2008).

The pyramid structure illustrates the co-operation and integration within the cluster environment. There are three levels in the pyramid and they are interconnected. Leading companies are on the top of the pyramid and are the key factors and driving force in the cluster. The main task of related companies and support infrastructure is to support business of leading companies. Leading companies usually generate

income from customers which are not included within the cluster. "Co-operation" and "competition" are the key words to describe the cluster environment – leading companies are not only competing among themselves but also co-operating. There could be different kind of co-operation forms – networking, research implementation, product development, and other types. Different co-operation forms is a motive why leading companies are developing more coordinated compared with companies outside the cluster. Leading companies within the cluster are an example of horizontal integration process and integrated development.

"Best practice" learning is extremely important to develop successful cluster (*Clusters for Competitiveness, 2009*). Different cluster "success stories" can inspire new ideas and motivate cluster participants. Good example of horizontal integration within the cluster is Australian wine cluster (Figure 2). The analysis of the Australian wine cluster with its rich set of institutions provides an important backdrop to understanding its remarkable success.

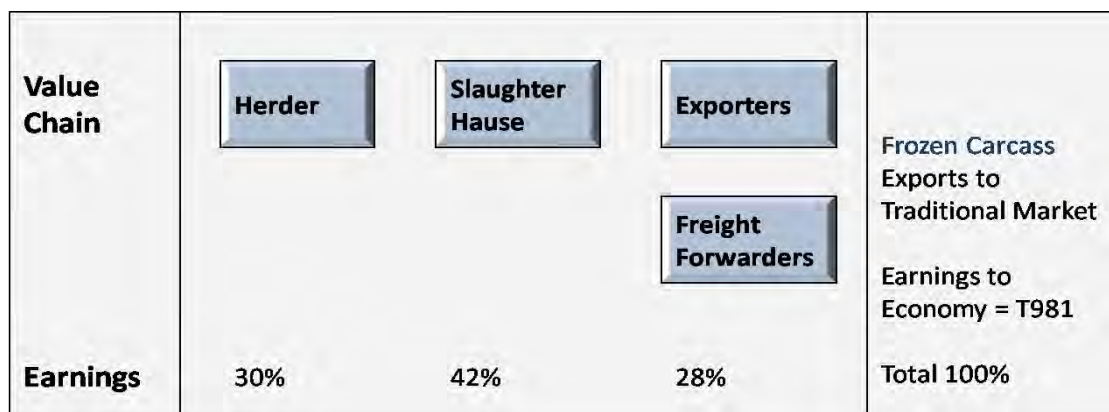
While the cluster has long historical roots – some dating back to the 1930s, the development of modern institutional structures has begun largely in the 1990s, when a mix of private, semi-private, and public organisations started to emerge. The new institution provided overall orientation for the cluster's export strategy and created platforms for co-operation among cluster participants on issues such as quality standards, research, training and export promotion. Soon after, the growth rate of Australian wine exports increased significantly. It is important to note that the new institutions worked because they drew efficiently on the capital that had been built through old institutions over decades (*Clusters for Competitiveness, 2009*). In this case business targets and strategy of the cluster were changed and results were surprisingly good – resulting in the increase of



Source: *Clusters for Competitiveness, 2009*

Figure 2. **The Australian Wine Cluster**

Scenario 1. Exporting unprocessed carcasses to traditional markets



Scenario 2. Exporting processed meat to specific markets



Source: *Clusters for Competitiveness*, 2009

Figure 3. Mongolian meat industry

export potential and global competitiveness of the whole industry.

“Lessons learned” from this example – not any kind of co-operation is effective, the cluster participants had previously long co-operation experience but without a significant outcome. The turning point was creation of a clear cluster vision and strategy accepted by every cluster member. In many industries of Latvia companies are united by local associations, and therefore have particular co-operation history. Industries associations are good starting point to develop closer integration forms (cluster), create common vision, and industry’s long-term development strategy. Professional cluster managers and engagement of every participant are necessary conditions for the development.

The middle part of the pyramid (Figure 1) discloses related companies – suppliers, which are providing leading companies with industrial technology, equipment, components, raw materials, and different

kinds of services. Related companies have high level of specialisation of production and are located geographically close to the leading companies. The focus customers for related companies are leading companies. Both types of companies are interdependent and tightly integrated on the vertical level. For example, in the mining industry industrial technology manufacturer (dealer) might provide equipment which is appropriate for specific demands of a leading company and is useless for others. This is a true model of vertical integration – companies have integrated development, and success or failure of the leading companies will directly influence the related company.

Another cluster development “best practice” example and model of the vertical integration is possible to find in the Mongolian Meat industry (Figure 3), which has traditionally exported animal carcasses to Siberia. Through work with the Mongolian Competitiveness Initiative, plans were made to

integrate value added operations such as quality checks, packaging, and marketing into the meat industry value chain (*Clusters for Competitiveness*, 2009). These upgrades were necessary to reorient companies toward more demanding and lucrative export markets. Project experts have also identified transportation options and completed cost studies to confirm feasibility of exporting to five Asian and two Middle Eastern markets. With assistance of various associations, and government agencies, the project worked with industry to streamline government policies and standards related to agricultural exports.

As a result, the Mongolian Meat industry was deepened and new stages were supplemented to the value chains. In this instance, the addition of veterinary services, meat inspection, and processing, packaging, labelling, and marketing operations to the Mongolian value chain provides gains of nearly 40 percent in meat industry earnings (*Clusters for Competitiveness*, 2009).

Involvement of new production stages, process upgrade and standardisation were key factors to increase efficiency and export potential within the cluster. Initiative and co-operation were the most important things for successful outcome of the project. The project had positive influence of the whole meat industry - new quality standards were defined and industry became more competitive on the global market.

This is an enlightening situation also for Latvia, where one of the country's export drivers - timber industry is exporting unprocessed or partly processed timber products to the European countries and later importing finished timber products from the same countries. From the economic point of view it is bad that export of more deeply processed timber products is not increasing (Sprogis J., 2009). Deepening production value chains and export of high value added timber products are essential factors to increase profitability in the industry.

The pyramid fundament (Figure 1) displays the support infrastructure, whose main task is to provide conditions necessary for development of the leading companies. It is possible to mark out two types of infrastructure: physical and institutional. Physical infrastructure includes roads, ports, communication sets and ensure base for the industry development. Institutional infrastructure includes different service providers (banks, venture capitals, law and marketing services), research and education institutions (providing cluster companies with qualified labour force and innovations), and other support institutions (agencies, municipalities, professional associations).

After summarising benefits for cluster participants it is easy to answer the question why cluster is necessary. The most observable benefits for cluster companies are as follows:

1. Resource consolidation and interconnected supplementation are reasons why:
 - it is possible to fulfil higher quality standards and get large scale orders;
 - it is possible to receive necessary raw materials on more favourable conditions;

- labour force training is more efficient;
 - common marketing campaigns and product development process are developed;
 - total expenses and risk level are reduced.
2. Constant networking, knowledge exchange, co-operation (including research institutions) are motivating factors:
 - to create new ideas, strategy, and technology transfer;
 - to increase innovation potential;
 - to establish unique knowledge and skills for the specific cluster.
 3. Development of the supporting infrastructure and related companies.
 4. Increased productivity and competitiveness on the local and global markets.
 5. Cluster is a powerful tool of industry's interest lobbying on the governmental level.
 6. Higher stability to unexpected changes in the market.

Networking, knowledge exchange, co-operation and other forms of interaction stimulate development not only for a single company but for all companies within the cluster. If leading companies are doing well, then it will be extra incentive for development of the related companies and support infrastructure. Probably, development of the cluster might have much wider effect - it can positively influence competitiveness of the whole industry and although boost growth of the region (as it was described in the case studies about Mongolian Meat industry and Australian Wine industry). Many successful cluster examples are possible to find all around the world.

The significance of cluster approach is also emphasised by the European Union (EU). The European Council has set forming of clusters as one of the top priorities to support innovations and competitiveness (*Council of the EU*, 2006). Latvia has followed the EU initiatives and cluster development is included in the national economy strategy. A cluster support programme was developed involving the government support and the EU funds, though unfortunately it was cancelled due to the budget deficit. Experts from the Ministry of Economics have an opinion that the cancelled cluster programme can be partly substituted by the Competence Centre Development Programme (total amount - LVL 42 million) which is planned to be launched in Quarter 1, 2010 (Burka A., 2009). Indeed the goal of this programme is very close to the cluster support initiative - to support research institution and business entities co-operation thus increasing the competitiveness level of companies by stimulating collaboration within the scope of industrial researches, new product and technology development. This initiative might be an opportunity for new cluster development in the future.

In 2007 the following clusters Metal working cluster, Biofuel cluster, Food cluster, Information System cluster, Wood cluster, Furniture cluster, Textile cluster, Pharmacy cluster, and Electronics cluster were formed within the scope of cluster development strategy, involving the Ministry of

Economy of Latvia. Unfortunately only some of the clusters were able to develop sustainably. Hardly the project funding expired; activities within the cluster fell down due to low initiative level demonstrated by the participants of the cluster.

However there are also some examples of sustainable clusters – Latvian Forest cluster, which is one of the oldest clusters in the country, and demonstrates positive development dynamics. The leading company within the cluster is *Latvijas Finieris* – one of the significant timber product exporters in the country. Different business forms are presented in the cluster – business entities, public institutions, industry's associations and other. The wood cluster geographically is located in Riga and it continues developing. In 2006 there were 19 participants within the cluster, while in 2009 – already 22 participants (Boronenko V., 2009).

Another example of collaboration is Latvian IT Cluster. There are more than 35 business entities and organisations within the cluster – leading companies are *Latt telecom Technology*, *DEAC*, *Exigen Services* and others. Research and development institutions are also presented – University of Latvia, Riga Technical University, Latvia University of Agriculture and others as well as professional associations and state institutions. In 2007 export potential of the IT Cluster was more than EUR 43 million and it increased by 7% compared with previous year (*Latvian IT Cluster home page*, 2009).

On the one hand entrepreneurs have to focus more on co-operation and integration with competitors, related companies and support companies to be successful on the global market. On the other hand the main task for the governmental institutions is to create favourable conditions for cluster development and encourage entrepreneurs to achieve higher level of integration. Successful development of the cluster support programmes may lead to increased export potential and overall competitiveness growth in the future.

Conclusions

Summarising the cluster environment influence on the integrated development and competitiveness level of companies, some conclusions can be drawn to understand how collaboration may help within the cluster. The cluster environment increases competitiveness of companies within the cluster by stimulating collaboration, interaction, competition, innovation, and increasing efficiency. Favourable conditions for the companies' integrated development are created within the cluster and examples of companies' horizontal and vertical integration can be found in the cluster models. Integrated co-operation among leading companies, related companies and support enterprises, deepening value chains to produce more value added production are the key factors to be competitive on the global markets. The economic power of the company may be increased in the cluster environment.

Latvia's ranking in the *state of cluster development index* is poor in the regional and also in the global

context. It is a signal that collaboration level among entrepreneurs is quite low in Latvia, companies are isolated, vulnerable and in general not competitive on the global market. However there are some successful cluster examples in Latvia: IT cluster and Forest cluster. Significant part of the country's export is low thus decreasing the profitability of industries. Cluster environment may help to deepen production value chains and export value added production. Cluster based national economy is one of the opportunities to increase overall competitiveness level, export potential and enter into the global market. The role of the governmental institutions is mainly to initiate a dialogue among entrepreneurs and inform them on the benefits of clusters. Financial support, including the European Union funds, is essential to stimulate creation and development of clusters. Taking into account "lessons learned" from other successful cluster examples - it is important to focus not only on the creation part of clusters, but also to daily cluster managing process. Smart cluster administration, participants' engagement and motivation, powerful cluster manager or facilitator is the key factors of successful and sustainable cluster development.

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Common Agricultural Policy of the EU - Latvia's perspective

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Abstract. In the conclusions of the EU Council of June 2008, leaders of the European Union stated: "It is important to continue to improve the market orientation of agriculture and thus enable EU farmers to better respond to market signals, while ensuring fair competition and fostering sustainable agriculture across the EU" (European Council 19/20 June 2008 Presidency Conclusions, Article 28, p.8). In the meantime, however, funding for market activities and direct payments under the Common Agricultural Policy (CAP) available to Latvia for the financial perspective of 2007-2013 consist of only EUR 0.84 billion or EUR 1.36 billion, including the state co-financing. It is the lowest amount of direct payments made per ha in the EU. Even in 2013, when the EU direct payments to Latvia will reach 100%, they will mount up to mere 93 EUR/ha (65 LVL/ha). In comparison, the average level of direct payments within the EU-27 is 276 EUR/ha (194 LVL/ha).

The research aim is to analyse the main directions, goals and programme implementation of CAP in the present financial perspective and propose solutions for its improvement. Materials, facts, working documents, and analysis from the European and Latvian institutions and financial analysts have been used in the policy assessment. Results are presented and formulated in a descriptive and logically constructive manner of synthesis.

It is crucial for Latvia that the upcoming calculations for the financial perspective of 2014-2020 are made in an objective, fair manner that corresponds to the real-life situation in the EU member states. Revision of the EU direct payments system for the next financial perspective will have a decisive impact on agriculture and the rural development in Latvia. The renewed system of EU direct payments, CAP, and the European Rural Development policy shall be based on clear principles of active, straightforward implementation of new strategies, equality in access to resources and policy-making, simplified process of decision-making and calculations of further financial assistance, and above all – on the principle of fair competition.

The Ministry of Agriculture of the Republic of Latvia has placed improvement of competitiveness of agricultural and forestry management enterprises among its top priorities, alongside restructuring, development and implementation of innovations, and improved level of knowledge and professional qualification among the population of Latvia. Yet - how many of the programmes aimed at reaching these goals have actually led to uncontested results? And how many of those have been included in the new state budget plan and financial perspective of the upcoming years?

The research will look at the economic policy of the European Commission, the European Parliament, and the government of Latvia, factors affecting the economic policy as well as efficacy of the use of available resources. It will conclude by drawing up the desirable trends for future economic and political strategy both on the European and national level.

Key words: agriculture, CAP, direct payments, rural development.

Introduction

Rural areas cover over 90% of the EU territory creating home to around a half of the European population (European Commission on Europe's agriculture and CAP). Inevitably, the Common Agricultural Policy is one of the most important and fundamental policy areas of EU. It gathers around 42% of the EU budget (European Commission on Budget) and consists of two pillar mechanisms. The first combines direct payments, market intervention and export subsidies, while the second is mainly implemented through different rural development programmes (Ministry of Agriculture of Latvia on the CAP).

The initial objectives of CAP were set out in Article 33 of the Treaty of Rome¹. In short, they aim at increasing productivity, ensuring a fair standard of living for the agricultural community,

stabilising markets, securing availability of supplies, and provision of food at reasonable prices.

This paper considers CAP to be the basis and key policy instrument of agricultural and rural development in Latvia as much as in Europe overall. Therefore, it is based on the hypothesis that carefully designed and successfully implemented changes to the CAP, aimed at equality and fair competition in particular will ensure a positive development of agricultural sector and rural areas, stimulating Latvia's economy and securing EU strategic role and competitiveness in the world.

Today, CAP does not fulfil its initial goals and potential. Instead, it favours the advantageous status of certain EU member states and strengthens the prospects for unfair competition between European farmers.

¹ see Treaty of Rome at: http://eur-lex.europa.eu/en/treaties/dat/12002E/htm/C_2002325EN.003301.html

The research aim has been to propose solutions for the CAP improvement. The first research task was to study the CAP, its policies and goals. The second task consisted of analysis of the ongoing debate on the given policy instruments and their restructuring. Finally, the paper assesses different evaluations of the CAP implementation.

Materials, facts, working documents and analysis from the European Commission (EC), the European Parliament (EP), Ministry of Agriculture of Latvia, Council of the European Union and financial analysts have been used in the policy assessment. Results are presented and formulated in a descriptive, logically constructive manner of synthesis.

The analysis first sets out the main goals and principles of the CAP. It also looks at the strategies and objectives defined by the government of Latvia with regards to the country's rural development, and compare those with the actual programmes introduced and budget provided. Finally, a set of basic changes are proposed for a revised, more efficient CAP that enhances economic and rural development based on fair competition among the EU member states.

The debate at a European level and Latvia's position

The CAP is a European Union policy the overall objectives of which are to ensure a fair standard of living for farmers and to provide a stable and safe food supply at affordable prices for consumers. Its priorities are to ensure food quality and safety, protect the environment and animal welfare, make the European Union farmers competitive globally without distorting the world trade, and to preserve rural communities and boost their dynamism and sustainability. It consists of two pillars of policy instruments. The First instrument combines direct payments scheme, market intervention, export subsidies and support to prices; while the Second instrument consists of rural development programmes (Ministry of Agriculture of Latvia on the CAP).

In the light of the ongoing debate on the post-2013 CAP, a number of the EU member states, including Latvia, have presented to the Council of European Union 39 proposals on how to improve the CAP, based on their mutual consent that it lacks concrete tasks of simplification.

These proposals address a number of current flaws within the CAP, such as administrative burden, inefficient division of finances, lack of precision and clarity in its programmes and requirements. Authors of the communication point out to a number of fundamental flaws of the CAP, first of all, its administrative inefficiencies. Some of the improvements called for are additional pre-emptive guidance from the Commission for crisis, annual check instead of regular additional checks as well as explicitly clear and precise requirements understandable for farmers and control authorities to be used as the basis for cross-compliance (CC) controls (*Communication from the Commission to the European Parliament and the Council "A simplified CAP for Europe – a success for all" 9103/09. 7771/09 - COM(2009) 128 final. Council of the European Union. Proposals No.7; 9;*

15; *2009.gada 8.decembra Ministru kabineta sēdes darba kārtības punktā. "Par Eiropas Savienības Lauksaimniecības un zivsaimniecības ministru padomes 2009.gada 14.-6.decembra sanāksmē izskatāmajiem jautājumiem". I Ministru padomes sanāksmes darba kārtība un Latvijas nacionālās pozīcijas.*).

Single annual check would constitute an important change not only from the administrative point of view, but also financially. Indeed, the costs of the controls currently required by Article 27 of the Commission Regulation No 382/2005 are no longer proportional to the total amount of aid granted, particularly in the light of the fact that the risk of non-compliance is very low (*Communication from the Commission to the European Parliament and the Council "A simplified CAP for Europe – a success for all" 9103/09. 7771/09 - COM(2009) 128 final. Council of the European Union*). The EC, in turn, argues that a single annual verification will not generate an adequate level of information on the stocks (*Simplification of the CAP: outcome of assessment of 39 simplification suggestions, submitted at the Council (Agriculture/Fisheries) on 24 April 2009 and state of play of other simplification activities SEC(2009)1601 final. 2009. p. 24*). It is also pointed out that with the integration of the scheme into the decoupled Single Payment Scheme, the specific controls for dried fodder will no longer be required. Clearly, the structure of the system in terms of direct payments schemes is due to change and hence bring different requirements to regular checking. Nevertheless, given the growing financial burden of the additional checks in the time of global crisis and immediate investments needed in a number of strategically essential areas – such as energy security and environment – a seriously reconsidered evaluation system of the CAP could bring about an important positive change.

The authors of the 39 proposals to the Commission – notably, Latvia, Denmark, Germany, Estonia, Ireland, France, Lithuania, the Netherlands, Poland, Romania, Finland, Sweden, and the UK – point at the legitimisation crisis of the CAP that can indeed be extended to the EU as a whole. The critical level of the situation was clearly laid out by the extremely low levels of participation at the last European Parliament elections in June 2009. The increasing burden of CC requirements has generated more difficulties for national administrations and consequently, a fall in acceptance of the whole concept among farmers (*Communication from the Commission to the European Parliament and the Council "A simplified CAP for Europe – a success for all" 9103/09. 7771/09 - COM(2009) 128 final. Council of the European Union. Proposition no.20*). In order to regain citizens' trust in the CAP and by extension, the EU's efficiency in promoting their interests, firstly, a carefully revised change of requirements has to take place, ensuring that no demands clash. As the authors of the Council communication put it – "one in, one out" (*Communication from the Commission to the European Parliament and the Council "A simplified CAP for Europe – a success for all" 9103/09. 7771/09 -*

COM(2009) 128 final. Council of the European Union.). The EC has provided an affirmative opinion of the given approach (*Simplification of the CAP: outcome of assessment of 39 simplification suggestions, submitted at the Council (Agriculture/Fisheries) on 24 April 2009 and state of play of other simplification activities SEC(2009)1601 final. 2009; Health Check of the CAP: current situation, Commission proposal and Council outcome. 2009.*). Hence, it remains for the member states to make sure that it is applied effectively.

In the meantime, however, the CAP needs to be adjusted to the *status quo* in the EU member states' economies. What is more, consultations with farmer communities are essential to ensure its legitimacy.

The European Parliament participates actively in the CAP simplification debate and related discussions on rural development. In response to the serious crisis in dairy production, it issued a resolution underlying the general critical state of things within the agricultural industry of the EU, especially after the recent global financial crisis (*European Parliament resolution of 17 September 2009 on the crisis in the dairy farming sector*). In the document, the EP targets the overall budgetary situation as well as direct payments scheme, market intervention and import quotas.

In its opinion on the EU's budget proposal for 2010, the Parliamentary Committee on Agriculture and Rural Development (AGRI) recalls its 2009 demand for the creation of a dairy restructuring fund of EUR 600 million to support farming investment, diversification, marketing support activities, etc. (*Opinion of the Committee on Agriculture and Rural Development for the Commission on Budgets on the draft general budget of the European Union for the financial year 2010, Section III – Commission (C7-0127/2009-2009/2002(BUD)). 30.9.2009, Article 5, p.3*). The calls for additional funds eventually resulted in additional emergency aid of EUR 300 million to help milk producers, aside nearly EUR 44 billion with over EUR 14 billion (+2.6%, as compared with 2009) to promote rural development, and EUR 2.4 billion financing out of EUR 5 billion European economic recovery plan aimed at strategic energy projects, broadband in rural areas and help to rural communities in coping with new challenges – all architected to boost Europe's economy (*EU Budget 2010: investing to restore jobs and growth. IP/09/1958. 17.12.2009.*). Regrettably, the Ministry of Agriculture of Latvia chose not to exploit these resources, declining the EU programme of broadband installation in rural areas.

In contrast to the new funding for rural development provided in the common EU budget, Latvian budgetary situation represents a different picture. Within the financial perspective of 2007-2013, the financial resources made available to rural development policy in Latvia accounted for LVL 0.75 billion or EUR 1.05 billion of the EU CAP budget. In addition to that, the state co-finances LVL 0.96 billion or EUR 1.36 billion for rural development programmes. These financial resources were planned to the following supporting activities

of rural development in Latvia: LVL 0.29 billion of the Community money and LVL 0.37 billion of the state co-financing directed at farming and forestry development, LVL 0.29 billion and LVL 0.36 billion accordingly for improvement of the countryside scenery and environment, LVL 0.12 and LVL 0.17 billion – to improve the life quality and enhance economic activity in rural areas, LVL 0.02 billion from both the EU and Latvian state for LEADER programme of professional training, and finally – LVL 0.03 billion and LVL 0.04 billion for technical support (*Pozīcija Nr. 1. Kopējās lauksaimniecības politikas nākotne: lauku attīstība. Pozīcija uz 2009.gada 14.-16. decembra ES Lauksaimniecības un zivsaimniecības ministru padomi. Zemkopības ministrija. p.2*). Yet, the economic crisis brought along its own corrections to the plan. Most of the financial resources initially accounted for rural development programmes of 2007-2013 financial perspective have instead been redirected at stimulating the European economy (*European Parliament resolution of 17 September 2009 on the crisis in the dairy farming sector.*).

A number of agricultural production stimulating programmes were introduced in the country over the past years. Those include the European School Milk Scheme that supplied 716 tons of milk to 511 or 50% of education institutions in Latvia throughout the academic year 2008-2009. Overall, LVL 280.6 thousand were invested in the programme – LVL 92 thousand of those provided by the EU and LVL 188 thousand as Latvian state co-financing (Ministry of Agriculture of Latvia on the European School Milk Scheme). In 2009, however, the programme did not receive the state co-financing, due to budget considerations. It has resulted in a notable decrease in the programme's activity. The first information for the academic year 2009-2010 was due only by the end of November 2009.

The situation does not appear brighter in a number of other similar programmes. Fruit and vegetable supply programme for schools has not received any state funding, postponing it to the upcoming academic year of 2010-2011. Nonetheless, given the current financial instability in the country, there is no certainty of its fulfilment by this date either.

Altogether LVL 532 thousand, including LVL 266 thousand from the EU Structural Funds and LVL 266 thousand as the state financing were assigned to the Bee-keeping program that was assessed as a positive influence on the sector from both the state and bee-keepers point of view. Nevertheless, no financial support is currently being provided to the programme from either the EU or Latvia, as effect of the economic and financial crisis in the country (*Implementation of financial resources for rural development programmes in 2007-2013 financial perspective. Ministry of Agriculture of Latvia. 2009.*). Yet, the programme is the only tool providing practical support to the bee-keeping sector. It is hence a particularly important component in any rural development programmes for Latvia.

Without a doubt, agriculture throughout Europe has been one of the most severely affected sectors by the economic downturn in the world. It had especially aggravating effects on dairy market, where supply increased simultaneously as demand decreased (*European Parliament resolution of 17 September 2009 on the crisis in the dairy farming sector*. Articles C; F). However, economic recession is not the sole cause of disproportionate prices of agricultural production. Significant distortions exist between the amount paid to the producers and the price set on the market, which has led the EP to call for an in-depth investigation of the situation (*European Parliament resolution of 17 September 2009 on the crisis in the dairy farming sector*. Article E). It also includes possible competitive disadvantages caused by the state protection and market intervention on increased levels – often disguised as state economy protecting tariffs on import, etc. Indeed, a more positive intervention can be implemented through coordinated action on the European level, for instance, by authorising positive loans and mutual guarantee systems that address the existing inconsistency of prices on the market.

Definition of eligible land for the purposes of single payment requires particular attention. At present, it seems too marginal and bound to particular cultural-traditional understandings. Definition of eligibility to single payments for the new EU member states – although still favoured by the EC in the last health check (*Health Check of the CAP: current situation, Commission proposal and Council outcome*. 2009) – are equally disadvantageous. As stated by a number of member states (for instance, in *Communication from the Commission to the European Parliament and the Council "A simplified CAP for Europe – a success for all" 9103/09. 7771/09 - COM(2009) 128 final. Council of the European Union*. Proposal No. 35), the history based approach in the definition, i.e. that new member states may receive support only for areas, which were in good agricultural condition before 30 June 2003 (*Council Regulation (EC) No. 73/2009 of 19 January 2009 establishing common rules for direct support schemes for farmers under the common agricultural policy and establishing certain support schemes for farmers, amending Regulations (EC) No. 1290/2005, (EC) No. 247/2006, (EC) No. 378/2007 and repealing Regulation (EC) No. 1782/2003*. Article 124) – creates unnecessary burden and cannot be justified with environmental interests either.

In Latvia, agricultural activity has increased significantly since 2003. Thus, at present, direct payments to farmers are reduced even more than initially foreseen. In 2007, Latvia received financing for 1536127 ha of agriculturally cultivated land, yet in reality, over 1620511 ha were registered in applications for the EU direct payments (*Pozīcija Nr. 1. Kopējā lauksaimniecības politika pēc 2013. gada: kāda ir tiešo maksājumu nākotne? 15.05.2009. Zemkopības Ministrija*. p.2). Clearly, the present definition of eligibility to direct payments favours rather than opposes the highly unequal distribution of resources.

Redefinition of land eligible to direct payments is certainly not an easy task, for it is related to uncultivated areas, where the assessment of whether an area is maintained in a way so as to be considered eligible can be difficult. Obviously, different agricultural traditions and land use varying in each member state, diverging environmental priorities and expectations from the public also affect member states' choice of practices that are to be considered as eligible agricultural area. Hence, the issue lies on a significant political dimension as it touches upon the broader question of each country's policy preferences and what the first pillar of the CAP is to stand for in the future.

To avoid such divergences in the future CAP, a review of support actions and possible overlapping of I and II pillar support mechanisms needs to take place, alongside introduction of more effective manner to address cohesion. Furthermore, eligibility to support ought to be defined according to the input invested in agricultural activity. When redistributing next CAP financial envelope, new aspects like environmental quality of rural territories and agricultural lands kept, economic data of the agricultural activity in the country also merit consideration. Moreover, single farm payment in each EU member state should be based on a simplified flat rate basic support system of uniform payments per hectare. For each applicant, it would mean that payments equal the number of eligible hectares multiplied by the rate per hectare. The post-2013 CAP direct payments must shape an income support scheme that ensures a supply of food at competitive prices and higher productivity. Furthermore, the EU financing system needs to be designed in such a way that European farmers do not suffer from the high quality standards in comparison with the ones applied in the rest of the world. The post-2013 direct payments therefore need to build a financial support system that at least partly cover farmers' expenses for complying with the high EU quality standards in the meantime providing consumers with products at competitive prices.

It is important that re-evaluation of direct payments be made simultaneously with reassessment of other CAP support mechanisms, since they are all closely inter-related and actual attainment of goals originally set out for the CAP will depend on financial support, as much as trade regulations, availability of resources and services, climate, health, and other.

An important policy instrument Latvia proposes is a defined maximum amount of support (national as well as European) per hectare each farmer is eligible to receive (*Pozīcija Nr. 1. Kopējā lauksaimniecības politika pēc 2013. gada: kāda ir tiešo maksājumu nākotne? 15.05.2009. Zemkopības Ministrija*. p.4). Similarly, the EP has called for immediate redefinition of maximum amount of *de minimis* state aid to productive farming sectors (*European Parliament resolution of 17 September 2009 on the crisis in the dairy farming sector*. Article 17). At the moment, however, the given amount may not favour those EU member states that have been hit harsher by the global financial crisis. This would constitute an effective way to tackle the highly unequal division of resources.

Assessment of the data and propositions encountered

Synthesis of Ex Ante Evaluations of Rural Development Programmes 2007-2013 shows that state programmes are unspecific in definition and inefficient in adaptation and implementation of set objectives to different national or regional contexts. The strategic goals identified are usually not translated into quantified target levels and fail to comply with the outcomes of SWOT (Strength, Weakness, Opportunity, Threat) analysis (*Synthesis of Ex Ante Evaluations of Rural Development Programmes 2007-2013. Final Report. 11/12/2008. pp. 59-88*). Furthermore, it has been noted that in a large majority of the National Strategy programmes, full intervention logics are included, yet not always in a structured way. Within the context of CAP simplification debate, this paper concludes that the given observation can be applied to supra-national policies as well. As previously mentioned in this paper, the EU definitions and regulations regarding the CAP and rural development programmes tend to be incomprehensible to their main target audience – farmers. Furthermore, they are indeed insufficiently adapted to the rapidly changing economic contexts of each particular EU member state.

Some researchers have noticed that funding allocations among different axis fail in balancing with the priorities of national strategies (*Synthesis of Ex Ante Evaluations of Rural Development Programmes 2007-2013. Final Report. 11/12/2008. pp. 88-106*). The EU budget for 2010 does prioritise its main policy areas (*EU Budget 2010: investing to restore jobs and growth. IP/09/1958. 17.12.2009*), yet the Latvian state budget has not been composed accordingly, with regard to the national priorities in the country's economic recovery plan (*2010.gada valsts budžets; Latvijas ekonomikas stabilizācijas un izaugsmes atjaunošanas programma, 2009.*) Moreover, existing support programmes do not provide sufficiently beneficial effect on agricultural and rural development in Latvia. In the case of Latvia, it is obvious that a more coordinated and thorough approach needs to be implemented on both levels – national and regional.

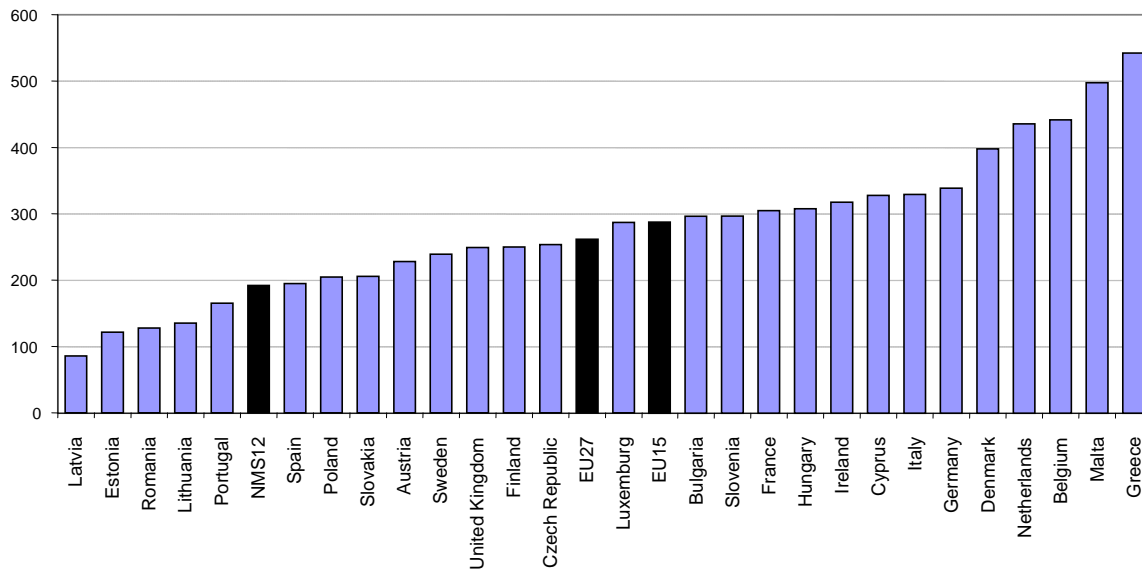
A detailed analysis of the current CAP rural development programmes shows, however, that they do not presently target the areas most in need and single out farmers without a comprehensive view of local development. It includes direct payments. The future role of the CAP should be to give farmers appropriate incentives to deliver European public goods demanded by society, particularly in the environmental realm. The CAP programmes are surely not enough to enhance world food safety, but they do play a direct and influential role on the rural development in the European countryside as well as the quality and quantity of agricultural production, landscape preservation, and rural employment. In countries like Latvia, CAP direct payments may even prove to be crucial for a sustainable development or even possibility to pursue agricultural activity. For the given reason, farmers in Latvia widely welcomed the government decision to provide direct payments in

advance (*2009. gada 8.decembra Ministru kabineta sēdes darba kārtības punktā. "Par Eiropas Savienības Lauksaimniecības un zivsaimniecības ministru padomes 2009.gada 14.-6.decembra sanāksmē izskatāmajiem jautājumiem"; ES platību maksājumu avanss lauksaimniekus var glābt no bankrotiem. 20.10.2009.*).

Since 1992, price support mechanisms have been progressively transformed into decoupled direct payments to farmers in Europe – the Single Farm Payment scheme (*A Common Agricultural Policy for European Public Goods: Declaration by a Group of Leading Agricultural Economists. p.1*). It has mitigated many of the CAP's negative side effects. Despite its positive incentives, costly Single Farm Payments confer highly uneven benefits on the EU member states and on individual farmers, without fulfilling any clear income distribution, rural development, or environmental protection objectives. In addition, remaining elements of the CAP's old market support mechanisms, such as export subsidies on dairy products and high import tariffs, remain problematic for the EU's trading partners, weakening the EU's negotiating position in its efforts to dismantle excessively protective policies worldwide and secure a successful conclusion of the Doha Round.

Without a doubt, market plays a leading role in the management and quantity of agricultural production and thus rural development. While the CAP support mechanisms provide the practical basis for production, market regulates the prices and productivity. Even though aimed at protecting local production, the pre-existing customs duties and regulations often create serious disadvantages and thus more disparities among the EU member states. In most of the new member states, there is a considerably lower availability and diversity of resources production. Consequently, it is directly dependent on import prices. Therefore, for Latvian producers, for instance, availability of products like white sugar as source material at global market prices would be of vital importance. Yet, at present, its high price on the EU market and increased import duty create a serious competitive disadvantage. In its 17 September 2009 resolution on Crisis in the dairy farming sector, the EP expressed a similar point of view, namely, that the EC needs to apply measures to ensure that imported feedstuffs comply with the same standards that farmers in the EU are faced with (*European Parliament resolution of 17 September 2009 on the crisis in the dairy farming sector. Article 5*).

Latvia has been one of those EU member states who have been hit hardest by the global financial crisis. It cannot currently provide the necessary funding for rural development programmes. Nevertheless, despite suffering one of the worst economic recessions among the EU member states, Latvia continues to receive the lowest direct payments per hectare. Even in 2013, when the country will have attained the phasing-in level or 100% of direct payments provided by the EU, those will account for mere EUR 93/ha (around LVL 65/ha), as compared with the average level of EUR 276/ha (LVL 194/ha) in the EU-27 (Figure 1).



Source: representation of the EC in Latvia

Figure 1. CAP direct payments per the EU member states in 2007 (EUR per hectare)

Indeed, only 20% of the European farmers receive 80% of financial support available under the CAP (European Commission on CAP budget). Although various reasons stand behind these data, it is nevertheless an unacceptable disparity. Like most other new EU member state farmers, Latvia's farmers do not account for those 20%. Instead of favouring inequality, the EC and the Council should ensure financial support from supplementary sources to countries like Latvia. It could include the EU Globalisation fund.

On similar opinion, the EP Parliamentary Committee on Agriculture called on the European Commission to "immediately implement measures to alleviate" the negative effects the global financial crisis has had on the agricultural sector and to put forward a "clear, long-term strategy for a sustainable and competitive" CAP (*Opinion of the Committee on Agriculture and Rural Development for the Commission on Budgets on the draft general budget of the European Union for the financial year 2010, Section III – Commission (C7-01272009-2009/2002(BUD)30.9.2009. Suggestion No. 1, p.3*). In addition to the budgetary aspects, the particular note implies a thorough revision of the EU Agricultural policy's requirements and programmes implementation in order to ensure compliance with its declared goals for equality and cohesion.

The post-2013 direct payments need not only to provide opportunity for production at competitive prices, but also to give European farmers and rural population realistic opportunity to ensure solid income, comparable with that in other national economy sectors. Furthermore the criteria according to which financial support is allocated currently lacks in-depth understanding on the realities of *status quo* in the sector.

What is more, when revising the CAP and rural development policies, it is essential to remember that

agriculture is a multi-faceted sector. It shapes the basis for service provision, such as environment and landscape preservation, maintaining high standards for living conditions in rural areas, plant and animal health. The latter cannot be provided solely based on market economy mechanisms. It would mean supplementary expenses for farmers. Consideration of those aspects has to be encouraged by appropriate policies on the EU level. Among other challenges, the post-2013 CAP needs redefined principles of eligibility to direct payments and subsidies to ensure the CAP addresses the problematic of inequality and regional, economic disparities and existing competitive disadvantages among member states. It also means inclusion of new priority areas in the Common Agricultural policies, namely, increasing productivity and improving competitiveness of traditional farming, enhancing production of renewable energy resources and biological farming. The CAP of the next financial perspective has to support development that respects both economic advantages and ecological solutions to production.

It is clear that the existing CAP mechanisms and manner of their implementation – from criteria of eligibility and amount of direct payments to high import tariffs on products are fundamental for production in certain member states – they cause significant negative effects on the rural and agricultural development in a number of the EU member states, promoting economic inequality and unfair competition. The EC decision in favour of direct single state support payments to farmers amounting to EUR 15 000 (*Piensaimeciba – Komisija pagaidām ļauj dalībvalstīm izmaksāt lauksaimniekiem valsts atbalstu līdz 15 000 eiro*) distorted the situation even more, for it disregarded entirely those EU member states that locked in between severe budget cuts and international loans were unable to provide any supplementary financial support to their agricultural communities. Hence, instead of reassuring European

Union's cohesion goals, it strengthens the flawed *status quo*, which whilst serving as a short-term economic advantage to certain European countries, weakens the EU economic capacities and Europe's strategic position in the global economic and political arena. Indeed, considerably higher quality standards set by the EU (as compared with other major world economies and developing states), disproportionate to the financial help provided for their fulfilment, alongside increasing economic disparities and pressures over unequal competition among the EU member states weaken Europe from within. What is more, it contradicts the Union's own goals and support to fair and liberal market economy.

In the reality of rapidly growing Asian economies, Chinese investments in Africa and the South America, the US policy of major investments in energy and state economy sectors, Europe's position as a global economic leader has deteriorated significantly. It will need a lot more effective and coordinated policy instruments to respond to the new realities of the 21st century than it currently provides. Strengthening inner cohesion and equality is but the first step. Yet, Europe will not succeed without fully coordinated policy choices, based on an equal process of deliberation, and successfully implemented principles of fair competition.

Without a doubt, implementing reforms will not be an easy process, since it is highly political and the changes will affect all. Nevertheless, they are more than necessary.

Conclusions

The Common Agricultural Policy of the EU is aimed at development, economic growth and fair competition. In reality, however, the CAP programmes and policy instruments strengthen unfair competition within the EU and provide unfounded benefits – namely, to those farmers that fall into the 20% receiving 80% of the CAP's financing. All in all, it preserves the existing inequalities, neither providing healthy competition, nor responding to the new political priorities and changed economic realities in the region.

It is indeed essential that the post-2013 CAP serves as an effective instrument of rural development and reduction of regional economic disparities within the EU, because only that way the necessary firmament for an honest equality and unity may be reached. Distribution of the financial and support instruments has to be based on revised criteria and definitions that better reflect reality of the second decade of the 21st century. Only the EU as a whole can ensure a sustainable rural development of its member states and it must ensure to do so.

There are multiple problem areas to address in reshaping CAP. It requires updated programmes that are created after a careful consideration of SWOT analysis, decrease in the number of required documentation and policy implementation procedures to reduce the administrative burden. In brief, the revision of CAP has to be seen as a thorough, coordinated process that simultaneously addresses

both its components and policy instruments as well as efficiency and compliance with the set goals and priorities.

It is equally essential to ensure promotion of society's interests through major regional policies like CAP. Interests of all EU member states need to be considered in mutuality and coherence, particularly as CAP is one of the EU's core policies with most direct and immediate effects on regional and national levels. Furthermore, legitimacy of the CAP will not be reassured if its reconstruction is conducted without a considerable number of consultations with specialists and representatives of the affected social communities, namely farmers and agricultural producers.

The most important issues to address however are subsidies under the First pillar that currently distort the economy and fair competitiveness among the member states; export subsidies risking to provoke trade conflicts; tariffs that endanger European manufacturing and service sectors and are often used as a pretext for protectionism, the unnecessary administrative burden created by the present CAP implementation process regulations, and definition of several key terms and criteria, such as eligibility to direct payments and land usage.

Fair competition is the key driving force of a positive development. The post-2013 CAP shall therefore ensure that it is coordinated on a European level in a way that takes into consideration the highly varied requirements and financial capacities of different EU member states. It includes revised export subsidies and import tariffs. Opportunity for protectionist policies needs to be removed. Moreover, criteria for provision of direct payments should be based on current economic data assessed within the framework of the particular situation in each member state, rather than historic factors.

It is essential that the revised CAP does fulfil its potential to ensure equal development nationally, cohesion regionally and maintains the EU's strategic role internationally.

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Sustainable Development Planning Experience in Rēzekne

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Abstract. The scientific research is worked out in the field of economic territory development planning. The research object is socially economic development of underdeveloped regions by planning and using the European Union Structural Funds. The novelty of the work is a completed research of a sustainable development planning experience in Rēzekne, a city of Latvia. As a result of research, the author has analysed the acquired experience and its influence, further planning tasks and activities. The present analysis will be used in order to secure a sustainable development.

The significance of the study is justified with the activities done for the establishment of the Structural Funds, which are directed towards regional development. The main factor of regional development is economically developed centre that promotes general activity. There is a necessity to do an integrated planning in different development aspects when initiating the development of centres. The research has resulted in a sustainable development planning progress of Rēzekne; the analysis of the local government functions and financial investment trends and scope. The study provides a notion on investments of the European Union's funding that improve environmental quality in Rēzekne and gives a possibility to ensure a high quality life for each inhabitant of a region.

Key words: long-term development, project planning, funding.

Introduction

The research problem. The research is done in order to evaluate the tendencies of socially economic development in the Eastern Latvia and particularly in Rēzekne; according to the existing situation in uptaking of the European Union Funds at present and for the next few years.

The research **hypothesis:** sustainable development is gained if governments do activities for a planning process and if there is a funding for elaborating projects.

Research aim is to investigate and analyse the planning process of Rēzekne municipality development documents and investment projects, and to display its connection with a sustainable development.

The **tasks** of the research are to explore the idea of long-term development, the features of a sustainable development legal basis in the context of the European Union financial investments, and the experience of a sustainable development planning in Rēzekne municipality.

The data gathering and processing **research methods** are the following: literature analysis, the method of statistical processing, method of comparison (the documents of regional policy, laws and regulations, analysis of project guidelines and comparison with the needs and acquirements of government), the analysis of projects planning and its theoretical and practical implementation.

Results and discussion

The idea of long-term development

The concept "sustainable development" is defined as "...development that meets the needs of the present without compromising the ability of

future generations to meet their own needs" (The Brundtland Commission, 1987).

The sustainable development is a chance for the society to see a long-term vision. The activities that are directed to satisfy present needs may be provided for a short-term, but they should include a long-term perspective as an addition. The sustainable development is an integrated concept that includes all people activities to the local level and promotes the following actions:

- 1) try to improve the quality of life for existing generation and next generations by protecting and preserving the Earth power to ensure life in all its diversity at the same time;
- 2) to repose on democracy, rule of law, and respect to human rights and freedom, including equal possibilities and culture diversity;
- 3) to promote high level of employment formation in economies whose force is based on education, innovations, social and economic cohesion, and protection of human health and environment.

The features of a sustainable development legal basis in the context of the European Union financial investments

Several significant processes exist in the context of the world's sustainable development. The strategy of the European Unions funding uptaking is based on priorities of the national development, the European Union approaches and policy that shall ensure suitable conditions for long-term and balanced socially economic growth in Latvia. One of the European Union goals is to level the economic differences among regions by using regional policy. It is important for Latvia, where some structural processes are made, and Latvia has to adapt itself

to the market of the European Union. The most important priority of regional policy is a struggle against unemployment.

The Structural Funds and the Cohesion Funds are financial tools of the EU regional policy and they are available to Latvia since 2004. The redistribution among regions is defined by the regulations of the European Union regional policy; all activities should be directed in order to increase regional competitiveness. The European Union has worked out a set of structural policy for governing and financing the single market, so that each region and branch has some benefit from it. There has been worked out in. There are four Structural Funds to implement structural measures among the European Union member states: **European Regional Development Fund, European Social Fund, European Agricultural Guidance and Guarantee Fund, and Financial Instrument for Fisheries Guidance.** Financing from the European Regional Development Fund in Latvia's national development plan is a promoter of development in regions and a promoter of economic and social conversion in regions with structural problems.

The principles of Latvia's regional development in leading, financing, supervision, and valuation processes agree with the principles of the EU regional policy – concentration, programming, partnering, complementarity, openness, and subsidiarity. The principle of sustainability is also mentioned, which helps keep a qualitative environment, the inheritance of nature and culture for the next generations (the Cabinet Regulations No. 198, 2004).

The acquisition plan of the Structural Funds in Latvia is the Single Programming Document (2004-2006) and the National Strategic Programming Document (2007-2013), which define priorities and strategy for the mentioned time period to attract the EU funding to level socially economic differences. Unfortunately in the beginning no one general regional priority was defined in the Single Programming Document, therefore it was complicated to implement a priority of levelled regional development. Later changes were made for improving this situation and involving some activities, which are directed to the regional development till 2013.

Considering that there are socially economic development differences between Riga and the regions of Latvia, the present model of Latvia can be defined as monocentric. An insufficient development of cities in regional centres trails the movement to a polycentric development model. The cities and towns should be developed as centres of economic development, with the definition of regional development. It is possible to gain a sustainable development in regions due to a successful use of the financial support of the European Union.

The experience of a sustainable development planning in Rēzekne municipality

Since 2004 the European Union offers a new chance and a challenge for local governments in Latvia to get the financial support to level the

regional development between regions, to improve infrastructure, competitiveness, and to develop human resources, and socially economic curtailing. Rēzekne has also got a chance to attract funding to improve its socially economic conditions and it has amassed an experience.

Rēzekne is called the heart of Latgale, and it is one of the seven biggest cities in Latvia, the centre of region where a potential of human resource and science is stood for. Since 1991 the demographical situation in Rēzekne has increased, since the number of population especially in Latgale is getting smaller. The unemployment rate in Rēzekne is two times bigger than it is in Riga and three times bigger than the average rate of Latvia. The consolidated budget of city has gradually increased, therefore it lets to plan a huge investment projects. The city budget and financial resources suit for the quarries of the European Union funding allocation, therefore it is sufficient to ensure the uninterrupted financing of projects. Also the limits of resources are sufficient to get credits for bigger infrastructural projects.

Rēzekne has been one of the first cities in Latvia, which in 2000 started working at "The strategy of Rēzekne City Economic Development 2001-2010". This programming document gave a chance to do the first financial uptaking for Rēzekne before Latvia joined the European Union.

Rēzekne municipality has an experience in implementing structural funding, and as a result of the PHARE 2000 project it has established a project group. It is a local government agency "Rēzekne Business Centre" where the EU funding is uptaken to implement the municipal ideas. The socially economic development in Rēzekne has been influenced not only by the local government projects, but also by other institutions work connected with funding uptaking and implementing the ideas by means of the structural funding. Until 2007 several EU projects were implemented in Rēzekne, which are summarised in Table 1.

Totally for the analysed period Rēzekne has uptaken LVL 4 414 137 LVL.

The local government has attracted more than a half of the EU funding for the city development. It means that the local government has a leading role in socially economic development using investments of the Structural Funds. Rēzekne has been involved in several wide national programmes, where the adjustment with water handling facilities and urban waste were especially important. However funding for the improvement of hospital, university, and professional school infrastructure was not enough. It hinders the influence of the ERDF investments on education and health protection serving as positive indicators of a particular region.

As it is seen in the previous figure, though LVL 11 799 513 were required, only LVL 2 253 349 were allocated, which is 19.10% of all the European Union Structural Funds financing.

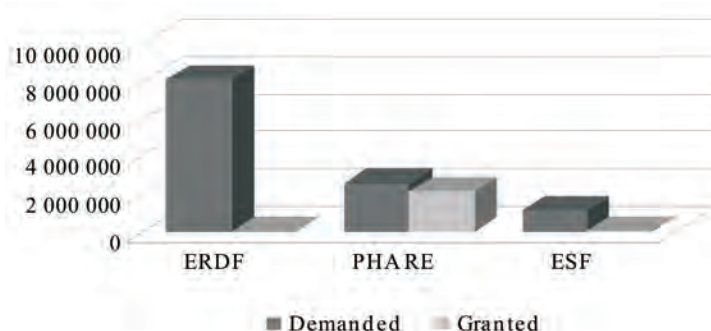
Collectively drafted development goals and tasks in order to reach the goals, projects, and activities were included in the first version of economic development strategy of Rēzekne. The strategic goals in Rēzekne are related to the state regulations. It is important

Table 1

Breakdown of the EU projects implemented in Rēzekne

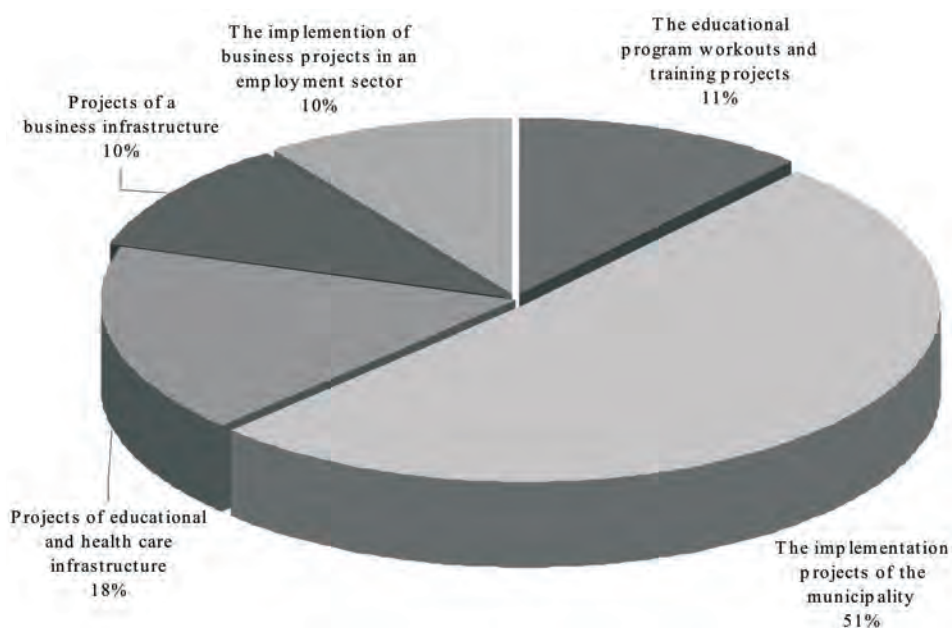
No	Types of projects	Funding LVL	Notes
1	ESF and ERDF National programmes	2 253 349	Established in all territory of Latvia by state institutions, also Rēzekne branches
2	National programme	775 249	Separate city institutions are involved (education and health care offices)
3	Regional and in Latvian-scaled training, consultation and research projects	501 115	Current in all Latvia and in many towns, also in Rēzekne.
4	Projects that are implemented by Rēzekne business sector	884 424	Mostly – for the improvement of employment, less – for the improvement of infrastructure. In comparison with other territory of Latvia, the businessmen in Rēzekne have attracted small number of the funding

Source: made by the author



Source: made by the author

Figure 2. **The required and allocated funding in Rēzekne from 2004 to 2006, LVL**



Source: made by the author

Figure 1. **The EU funding attracted by the businessmen and local government from 2004 to 2006, %**

for the local government planning documents. But there were no strategic documents for the branches in Rēzekne local government – no development plan for education institutions, culture field, city heat supply development as well as environment. The documents completed had not enough long-term view and the future vision. The projects that were eligible to all the criteria and were accepted got very high points. It shows that the responsible civil servants are qualified, and they do their work well, though it was not the only precondition to get the European Union funding. The local government did not lobby the projects; there was too scanty interest

from the leading institutions to develop the city. The biggest number of refused projects was related to infrastructure improvements, the refusals were not cogent and objective reasons were not offered. Comparing the number of applied projects and the projects that were supported, the author comes to the conclusion that the identified needs for socially economic development were not funded at the planned volume and presumed branches.

In the beginning of 2007, the government worked out the sustainable development strategy of Latvia and the National Development Plan. The preconditions that would help develop economically

Table 2

Strategic goals, priorities and tasks of the Integrated Development Programme in Rēzekne from 2007 to 2013

Goals			
To promote the growth of Rēzekne as a national centre of the culture and education in the Eastern Latvia.	To develop manufacturing and innovative business by using the scientific and explorative potential.	To make the preconditions to develop a proactive person and to ensure good quality, secure and accessible life for each inhabitant in the Eastern Latvia.	
Priorities			
Infrastructure of city environment	Competitive business	Human resource development	Maintaining the cultural inheritance
Tasks			
Modernisation of infrastructure in education institutions; Development of a secure, suitable and accessible transport system; Modernisation of technical infrastructure in the city; Improvement of transit roads; Environmental protection and improvement of a sustainable development; Development of culture and sports infrastructure; Improvement of health care institutions and their technical equipment infrastructure; Improvement of economic services quality; Increase of energy efficiency; Improvement of social care infrastructure; Development of households and lodging infrastructure.	Implementation of innovations and transfer of technologies; Development of science and research; Use of knowledge for business competitiveness; Making public and private partnering; Development of Rēzekne Special Economic Zone; Orientation towards professional job market; Involving of social partners into the city government.	Improvement of lifelong and further education; Improvement of professional and higher education quality; Establishment of Higher Education Institution of Rēzekne as Rēzekne University; Promotion of society integration; Improvement of culture and sports activities quality; Integration of socially castaway groups.	Developing the city as well-known culture centre; Maintenance of the historical culture inheritance and use of its economic potential; Promotion of social and inter cultural dialog and making the net of cooperation; Development of creative industries.

considering the faults during the first planning period were worked out in these planning documents. There was a comprehensive economic situation analysis in Rēzekne development strategy (2001), but the part of programme was very general and wide. The most important priorities were not pointed out; thus requiring the necessity for making new regulations. The Integrated Development Programme was worked out in Rēzekne to accent the city future view and to define the development priorities, goals and activities for reaching the goals mentioned above.

The development programme presumes the promotion of sustainable development in Rēzekne as a national centre, the ensuring of a high quality of life and maintenance of the characterising features of Latgale. The development programme directs the polycentric development in Rēzekne, and it promotes the development of Rēzekne as impellent region. The city is going to become an important potential for development of the Eastern Latvia. Rēzekne is the most important service offering centre, which has a cultural potential and education resources. The region of the integrated influence is approximately in a radius of 100 kilometres. It includes Ludza, Viļāni, Kārsava, Balvi, Madona, Krāslava, and Preiļi districts (Rēzekne Council, 2007).

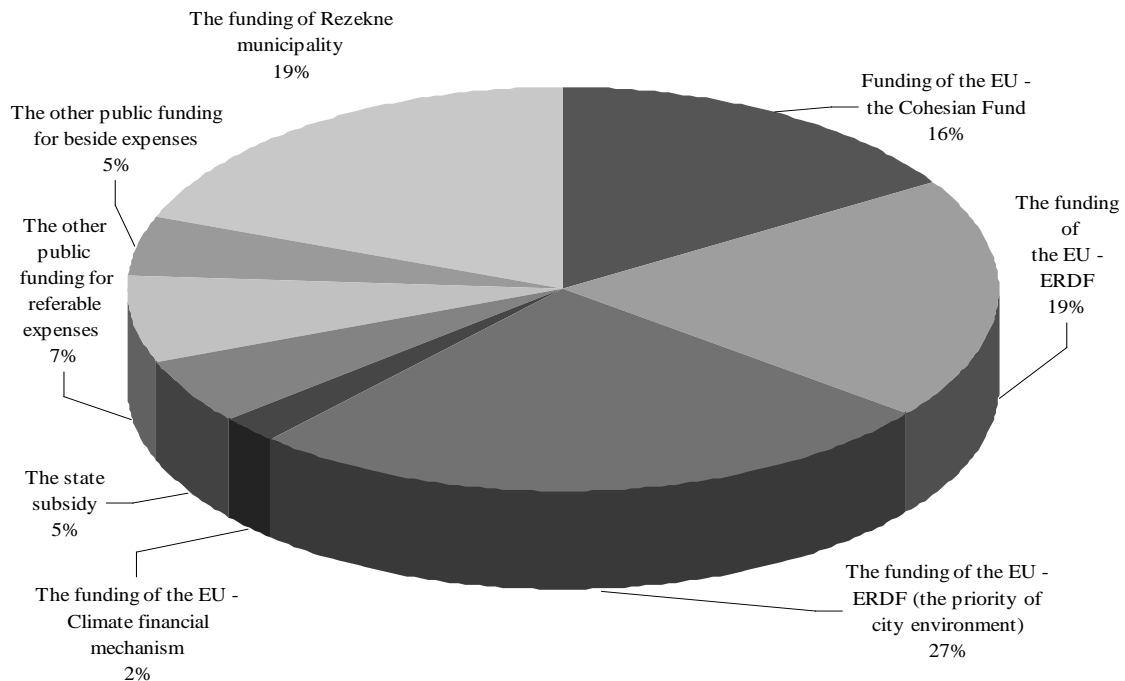
The programme document strictly analyses the present situation, shows the development perspectives and defines the projects that will help achieve the goals. Three goals were formulated in the Development Programme for the time period of 2007-2013, and the goals included the policy of integrated city development – four priorities and twenty eight tasks, which are subordinated to the goals.

Table 2 present results and influence indicators for each goal. Each priority has got an investment plan – project lists with defined titles, adequacy to the state strategic documents, connection with other projects, indicative sums, financial tools, planned results, and schedule of implementation.

The development strategy was worked out in time, and it was submitted to the responsible institutions. On December 5, 2007 Latgale Planning Regional Development Council evaluated, discussed and made a decision to support Rēzekne city integrated development programme 2007-2013, taking into account that the programme has been made according to the goals and priorities mentioned in the planning document of Latgale regional development.

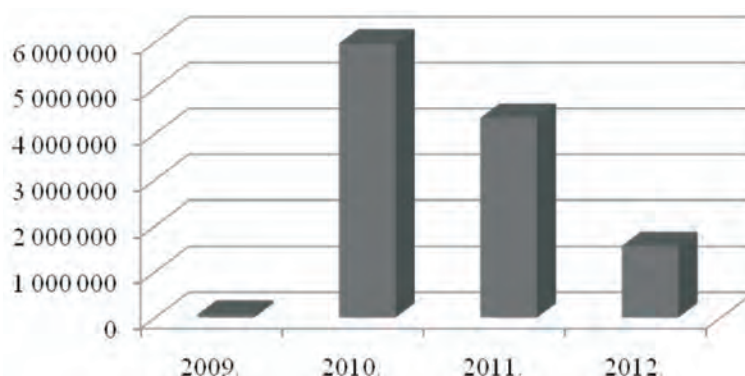
Rēzekne was the first city in Latvia, which had a positive evaluation from the Ministry of Regional Development and Local Government for the next five years. This fact was meaningful in getting the funding for infrastructure development. Rēzekne may participate in open calls for projects where all municipalities apply for the European Union funding as well as in calls with limited number of participants. It means that there is money reserved for programmes and local governments which may apply for this money with their projects. Thus, the responsible groups can be assured that making high quality project works, it is possible to get funding.

Twenty-six projects were identified during the sustainable development planning in Rēzekne. These projects will help improve and make the infrastructure for several sectors: heat supply, water supply, roads, health care, education and culture, energy efficiency, and bordering problems. The prospective total money could amount to LVL 62.47 million (Figure 3).



Source: made by the author

Figure 3. Prospective breakdown of funding in Rēzekne 2009 – 2013, %



Source: made by the author

Figure 4. The financial investments (LVL) of Rēzekne municipality between 2009 and 2012

It is presumed that 61 % of funding will be acquired from different programmes of the European Union, like the Cohesion Fund and the ERDF; state subsidy will cover 5%, other public financing – 12%, the rest – 19% will be financed by Rēzekne municipality.

It is a unique chance to improve the city infrastructure by implementing such great projects, but it will ask efforts from the local government to co-finance the projects. The biggest financial investment is going to be in 2010, when several great projects are to be implemented at the same time.

The concepts of projects that need to be implemented in the next four years were directed considering the principles of sustainability and

integrated access; clear and logical approach, also concentrating on solving the urgent questions. The main projects for developing city environment for this period of time are the following ones:

Though there are various European Union funds, which are offered to the local government, its ability to attract resources for sustainable projects is limited. The European Union funds need to have not only co-financing (about 15%), but also pre-financing that put the local government to take more loans.

Considering that the local government has to ensure the co-financing almost for all 26 projects for a total sum of LVL 11.96 million, a more intense attention must be paid to the budget because it is presumed that the maximum level will be reached

Table 3

Summary of planned projects

Number of sub-activity and title	Title of project	Presumed expenses (million LVL)
3.6.1.1 "The improvement of centres development as nationally and regionally important ones for the equal state development"	Reconstruction of main street and flyover in order to make Rēzekne more reachable as a centre of culture and education in the Eastern Latvia	9.40
	Establishment of more reachable micro regions of Rēzekne city – reconstruction with connection buildings from Stacijas street to other parts of the city	1.76
	Renewal of city environment and business improvement by constructing pedestrian streets in less developed territories	2.7
	Creative service centre in the Eastern Latvia (CARAN D'ACHE)	7.15
	Development of more reachable institutions of traditional culture - reconstruction of J.Ivanov Music school	1.75
	Reconstruction of cultural history museum in Latgale	1.09
3.4.3.1." Establishing universal national and regional centres"	Universal regional centre in Rēzekne	10,,91

Source: made by the author

in 2014. For the next years budget is going to be smaller. The author notes that the mentioned indicators are relative and may change according to circumstances.

The subordinated risk of project implementation has an institutional character. All governmental resource and more qualified civil servants should be attracted to divert this risk. Specialists who are able to coordinate the involved institutions ensure the project implementation as well as distract the possibility of risks. Especial attention should be paid to organisation of the local government procurement processes to implement the projects right in time.

Conclusions

1. There are negative socially economic features in Rēzekne that could be diverted by creative ideas for projects and funding.
2. Rēzekne was one of the first cities, which in 2000 started to work with "Strategy of Economic Development in Rēzekne for 2001-2010". The programme document offered a chance to attract first financial support before Latvia joined the European Union. The document had not enough long-term view and the future vision.
3. LVL 4.4 million lats were attracted as an additional funding by 2007. The government attracted more than a half of money offered by the EU. It means that it has a leading role to influence the socially economic development. The required funding for the improvement of city infrastructure was approved only at level of 19.10%.
4. Considering the faults of the first planning period, the planning document 2007-2013 was modified so that it could help the government to develop in economic and sustainable way.
5. A need for new regulations aroused in Rēzekne government related to Latvia National Development Plan 2007-2013. In 2007 the Development Department of Rēzekne Council worked out "Integrated Development Programme in Rēzekne 2007-2013". It prescribed the future vision of the city, development priorities, goals, and the tasks to reach those goals.
6. Several projects were identified during the sustainable development planning in Rēzekne.

With the help of particular projects the local government was able to improve an infrastructure of some sectors: heat supply, water supply, roads, health care, education and culture, energy efficiency, and bordering problems. A provisory money amount for all the projects may be LVL 62 million.

Recommendations

1. The local government shall strictly evaluate the European Union funding as it is the main risk because projects require significant monetary instruments from the government. The financial flow should be planned and coordinated due to the existing economic crisis and limited possibilities to get loans.
2. The subordinated risk of project implementation has an institutional character. All governmental resources and more qualified civil servants should be attracted to divert this risk. Specialists who are able to coordinate the involved institutions ensure the project implementation as well as distract the possibility of risks.
3. During processing the sustainable development evaluation there should be done a monitoring of indicators and activities meant in the programme of integrated development 2007-2013. It should be done to see the further city progress.

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Analysis of Information and Communication Technology Development in the Baltic Sea Region States

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Abstract. The paper contains the characteristics and analysis related to the degree of acquisition of information and communication technologies in the Baltic Sea region states. Networked readiness index is applied for the purpose to compare ICT development in seven countries, and to evaluate achievements and weaknesses. Regression analysis is applied to prove the connection between the degree of ICT development and growth of GDP per capita as well as the country's competitiveness rank. Particular attention is devoted to problem areas of ICT application in Latvia. The paper provides recommendations for the improvement of situation in Latvia mostly in the government policy regarding promotion, prioritisation, and vision of the ICT future.

Key words: information technology, Networked readiness index, broadband, online public services, competitiveness.

Introduction

Communication on the Commission's new i2010 strategy was adopted on June 1 2005. i2010 – European Information Society 2010 aims to exploit opportunities for the economic growth and jobs in Europe by promoting an open and competitive digital economy. This document is a key element of the renewed Lisbon Strategy and offers a comprehensive strategy for the ICT and media sector. It proposes three priorities for Europe's information society policies ("i2010 – A European Information Society for Growth...", 2005):

- 1) the completion of a Single European Information Space which promotes an open, competitive and content-rich internal market for electronic communications, media and content;
- 2) Strengthening Innovation and Investment in ICT research to promote growth and jobs through a wider adoption of ICT;
- 3) Achieving an Inclusive European Information Society that prioritises better public services and quality of life.

Benchmarking plays a central role in monitoring progress for achieving these i2010 priorities. In each case, a mix of indicators is needed to measure the different aspects of the objectives that are to be achieved. Policy emphasis now focuses more on complex issues of impact and usage of technologies in the wider economy, and benchmarking must become more sophisticated (i2010 High Level Group, 2006).

The Commission continues to monitor progress through an annual European Information Society Progress Report. The reports assess developments and impact, and indicate the aspects for additional measures.

In 2006 the i2010 High Level Group elaborated a document, which encompassed further benchmarking framework, namely "i2010 Benchmarking Framework". In accordance with this document

9 themes were elaborated for benchmarking for the next 5 years: Developments of broadband; Advanced services; Security; Impact on ICT sector; Investment in ICT research; Adoption of ICT by Business; Impact of adoption of ICT by Business; Inclusion; and Public services (i2010 High Level Group, 2006).

In 2006 the EC issued its first annual i2010 Annual Information Society report, which revealed the progress achieved by 27 member states on implementing i2010 tasks. In parallel with the mentioned report the EC finances the studies "The User Challenge Benchmarking the Supply of Online Public Services", which is devoted to core measurements of *sophistication* and *fully-online availability* of online services, measured across a basket of 20 services assessed from public agencies across 31 countries. Improvements of benchmarking methods still remain in the agenda of i2010 High Level Group: a report on further development of methods provided by Capgemini was discussed in May, 2009 (eGovernment Benchmark Method Paper, 2009).

Although these studies provide a very comprehensive sight of ICT usage and adoption in the member states none of them contains universal measure or index that allows ranking the member states and making comparisons among them and with the advanced world countries.

Besides the mentioned studies a few of international and commercial organisations such as the UNO (Department of Economic and Social Affairs United Nations, 2008), the OECD (Guide for Measuring the Information Society, 2009), The Economist (The Economist Intelligence Unit, 2007), European Institute of Business Administration (INSEAD, 2005) and others have issued reports on ICT and Information society issues. Methods and approaches used in the INSEAD study were applied in Latvia with the purpose to calculate the eEurope index for the regions of Latvia (Rivža P., Kopeika E.,

2005). Due to the space limit of article the authors confine themselves only with one such annual study, namely "The Global Information Technology Report" (GITR).

Taking into account the centrality of innovation and technological readiness for national competitiveness, the World Economic Forum (the Forum) has undertaken, in cooperation with the INSEAD since 2002, a research project aimed at identifying the factors enabling countries to fully leverage ICT in daily activities in order to effectively boost growth and prosperity.

The Networked Readiness Index (NRI), featured in the GITR series, establishes an international framework by which the performance in networked readiness of a large number of economies can be assessed and benchmarked against one another and over time. Thus the last GITR 2008-2009 extends its coverage to 134 developed and developing economies worldwide accounting for more than 98% of the global GDP.

The aim and tasks of the research

The authors of the article have chosen seven Baltic Sea region countries (BSR) with the purpose to analyse the extent of acquisition of ICT and to make certain recommendations for further adoption ICT in Latvia. Despite the different size of the countries and diverging historical background ones are allocated in the neighbourhood one to another, and for the past five years belong to the same political and economic organisation, thus they have to have the same targets and similar priorities of development.

The following tasks were set:

- to analyse the extent of acquisition of ICT by seven Baltic Sea region countries using the NRI;
- to analyse Latvia's place referring to the application of ICT among Baltic Sea region countries;
- to prove the connection between the degree of acquisition of ICT and competitiveness of a country;
- to make recommendations for further adoption of ICT in Latvia and improvement of competitiveness.

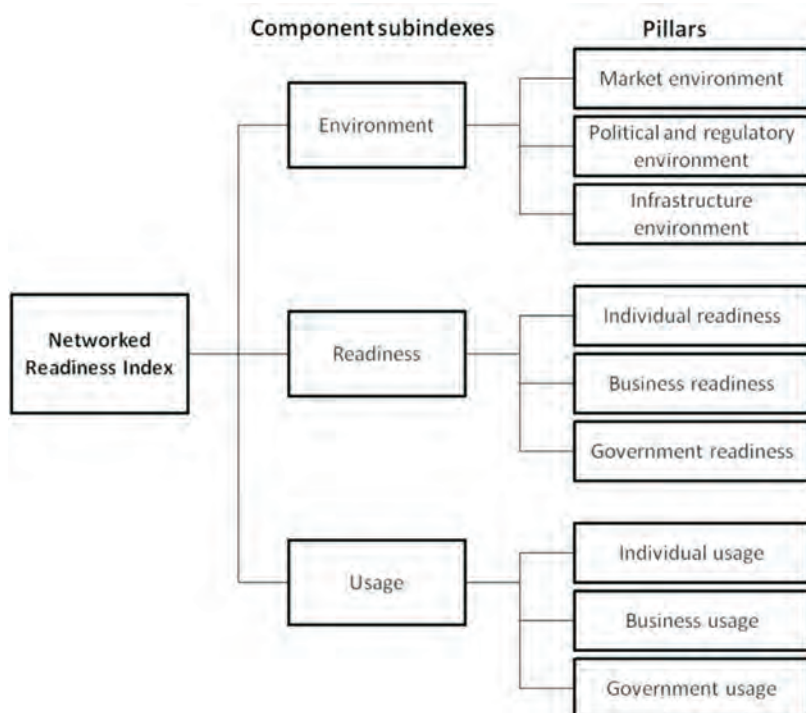
Materials and methods: monographic method, statistical analysis of data and expert method.

The Networked Readiness Index 2008–2009: the framework and the methodology

The NRI 2008-2009 builds on a mix of hard and survey data. In particular, 27 variables out of 68 are hard, quantitative data, collected from respected international organisations such as the International Telecommunication Union (ITU), the World Bank, and the UNO. The remaining 41 variables capture dimensions that are more qualitative in nature and come from the Executive Opinion Survey, conducted annually by the Forum in all the economies covered by GITR.

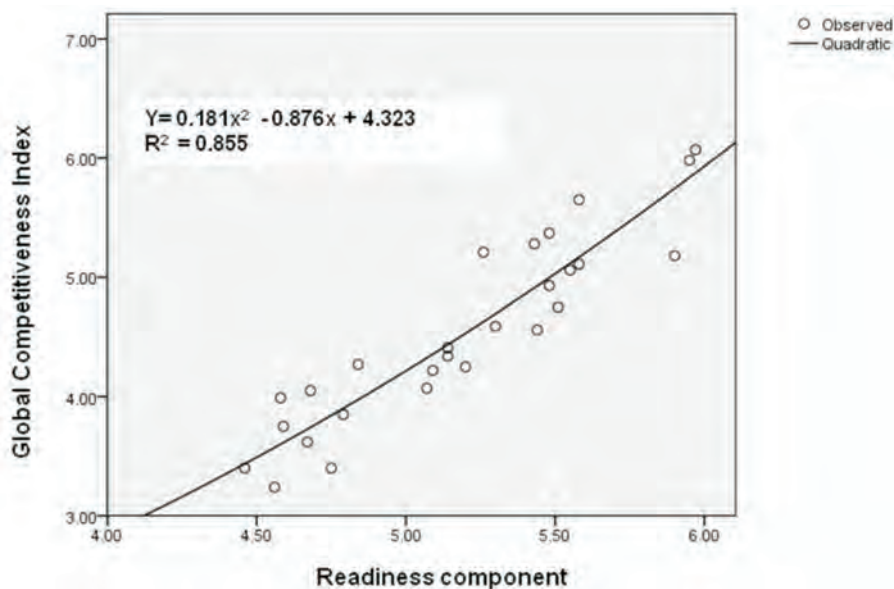
The NRI is composed of three sub-indexes, assessing respectively ICT environment, readiness, and usage, for a total of 9 pillars and 68 variables, as it is presented in Figure 1.

All pillars are given the same weight in the calculation of the three sub-indexes, while the



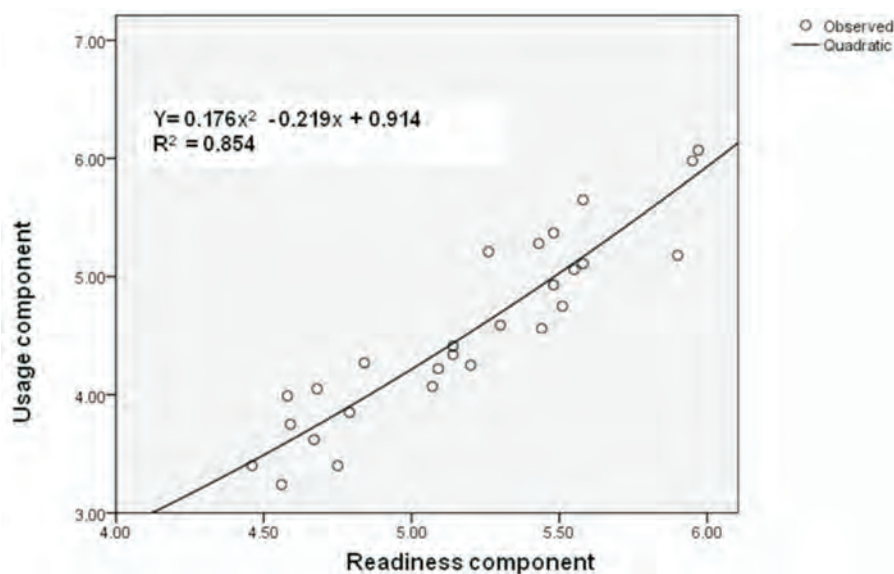
Source: made by the authors according to the data of The Global Information Technology Report 2008–2009, INSEAD

Figure 1. Networked readiness index composition



Source: made by the authors according to the data of The GITS 2008–2009”, INSEAD and Global Competitiveness Report 2009–2010”, World Economic Forum

Figure 2. Global Competitiveness Index dependence on Networked readiness index for the EU-27 countries



Source: made by the authors according to the data of The Global Information Technology Report 2008–2009, INSEAD

Figure 3. Readiness component fostering the ICT usage

overall NRI is a simple average of the three sub-indexes. The underlying assumption is that all the Index components provide a similar contribution to the overall networked readiness of a country.

The different sub-indexes, pillars, and variables’ scores offer important insights on the relative strengths and weaknesses of each economy in leveraging ICT, and can help governments to prioritise the areas in need of improvement in their national agendas.

Below is a brief description of each sub-index and pillar composing the NRI.

Environment sub-index

As stated earlier, governments, business communities, and individuals can fully leverage the competitive and development potential of ICT only if an appropriate environment is in place. The environment sub-index aims at capturing the ICT conduciveness of the environment in a country by assessing a total of 30 variables related to the market environment, the regulatory framework, and infrastructure for ICT development.

The *market environment pillar* (14 variables) gauges the friendliness of the business environment

for ICT development, including aspects such as the presence of appropriate capital sources, the degree of business sophistication, and the innovation potential, together with the ease of doing business, the freedom of exchanging information in the net and, the extent of convergence of ITC industries and the related accessibility of digital content.

The *regulatory and political environment pillar* (9 variables), looks at the efficiency and transparency of the legal framework, taking into account such general aspects as the independence of the judiciary, the effectiveness of the law-making process, the protection of the property rights, the existence and development of appropriate legislation concerning the protection of intellectual property.

Last, the *infrastructure environment pillar* (7 variables) measures the degree of development of ICT-conducive soft as well as hard infrastructure.

Readiness sub index

The readiness sub index (23 variables) examines whether the appropriate human skills for using ICT are in place, the degree of access and affordability of ICT for businesses and citizens, and the extent to which the government prioritises ICT and uses it in its daily activities and organisation.

Accordingly, the *individual readiness pillar* (9 variables) measures the disposition and preparedness of citizens to use ICT through a range of variables, including the quality of the education system, the availability of Internet access in schools, residential telephone connection charges, broadband and telephone subscription charges, and the cost of mobile telephone calls.

The *business readiness pillar* (10 variables) gauges companies' preparedness to fully incorporate ICT in their operations and processes, including the extent of training of the labour force, companies' spending on research and development (R&D), the degree of collaboration between academia and the industry.

Last, the *government readiness pillar* (4 variables) measures the degree to which ICT is prioritised in the government's agenda and to which there is a clear vision on how to promote its use and penetration.

Usage sub index

The usage sub index (15 variables) assesses the actual ICT usage by the three main stakeholders of the NRI.

The *individual usage pillar* (5 variables) gauges ICT penetration at the individual levels, notably for personal computer (PC) and the Internet.

The *business usage pillar* (5 variables) examines the extent to which businesses generate and absorb technology, using such variables as the prevalence of foreign licensing and the capacity for innovation, the availability and usage of fixed telephone lines for business and internet usage by businesses.

The *government usage pillar* (5 variables) assesses the extent, to which the government's vision for ICT has been implemented successfully as well as the government's own ICT usage.

Over the years the GITR series has evolved into one of the world's most respected international assessments of countries' capacity to leverage technology for increased competitiveness. The regression in Figure 2 demonstrates a very high value for R^2 and shows that Global Competitiveness Index increases significantly, with the growth of the readiness to use ICT means.

There is evidence that ICT readiness fosters ICT usage, because a strong correlation exists between the degree of preparedness and propensity to use ICT of the three main social actors mentioned above (government, businesses, and individuals) and their actual ICT usage, as displayed in Figure 3. The regression in Figure 3 not only demonstrates a very high value for R^2 , but also shows that the usage of ICT increases significantly as the readiness or preparedness to use ICT advances.

Hence, a society that is well prepared and well disposed to use ICT will be more likely to successfully leverage the competitive and development potential of ICT.

While the ICT industry is not immune to the crisis, the GITR (Irene Mia, Soumitra Dutta, 2009) has predicted that global technology spending will grow by 2.9% year-on-year in 2009, which is lower than the previously forecasted 4.9%.

Despite slowdowns in sales in many technology products, the sales of global mobile phones are expected to grow by 6% in 2009, according to the forecasts by Gartner Inc., and the popularity of social networking sites is growing steadily.

There are two underlying reasons why the technology sector, while suffering due to the overall economic challenges, is showing such signs of resilience.

One is that technology is evolving continuously and, despite economic uncertainty over the coming years, progress in most areas of ICT capabilities continues at a reasonable pace. For example, the price of personal computers is falling rapidly and the emergence of a whole new class of laptops, priced as low as USD 100 to USD 300 is enabling large segments of the population now to get access to affordable computing (Irene Mia, Soumitra Dutta, 2009). This fact could explain the growth in popularity of social networking platforms.

The second reason is related to the fact that both public and private sector leaders now accept the important role of ICT in stimulating growth and enabling the development of economies by significantly increasing productivity across sectors and industries.

Assessment of ICT development in the Baltic Sea region countries using Networked Readiness Index

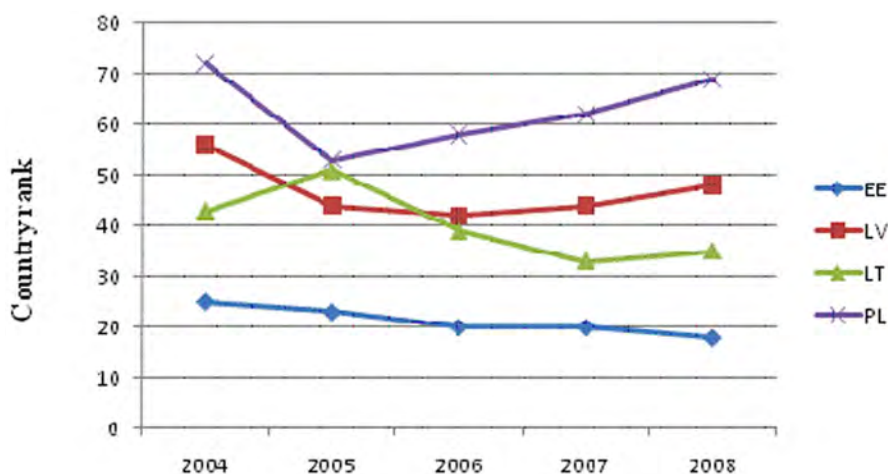
Table 1 provides some insight into the seven economies in leveraging ICT in the year 2008, by looking at the countries performance in each of the nine pillars composing the NRI. Due to the lack of article space the tables, which comprise all 68 variables of the Network Readiness

Table 1

Baltic Sea region countries performance in each pillar of the Network Readiness Index 2008-2009

Country	Overall ranking	Number of times ranked in top 3	Market environment	Regulatory environment	Infrastructure environment	Individual readiness	Business readiness	Government readiness	Individual usage	Business usage	Government usage
Denmark	1	5	9	2	6	4	6	2	3	2	1
Sweden	2	5	10	5	2	8	2	3	2	1	6
Finland	6	2	6	3	7	1	5	8	16	7	19
Estonia	18	-	21	21	26	19	32	7	14	24	3
Lithuania	35	-	48	41	39	36	51	49	32	47	30
Latvia	48	-	49	46	47	55	60	76	39	62	74
Poland	69	-	87	100	41	43	52	103	46	69	127

Source: made by the authors according to the data of The Global Information Technology Report 2008–2009, INSEAD



Source: made by the authors according to the data of of GITR 2005, 2006, 2007, 2008, 2009, INSEAD

Figure 4. Estonia, Latvia, Lithuania and Poland in the NRI ranks for 2004- 2008

Index 2008-2009 measured for seven countries are not attached here.

Three Nordic countries Denmark, Sweden, and Finland are surely the networked readiness champions in the region as well as globally, having consistently ranked in the top 10 for the past eight years, as indicated in Table 1. These countries seem to be fully benefiting from ICT advances, as shown by their high penetration and diffusion rates and their sophisticated business sectors, successfully exporting high-tech products to international markets. The Nordic recipe for networked success owes much to a transparent and business-friendly legal framework, well functioning markets, effective education and research systems, and a widespread culture of innovation both in the public and private sectors. Also, the Nordic policymakers have early understood the importance of ICT as a competitiveness enabler and have

constantly promoted its use and diffusion in their countries.

Denmark and Sweden are the countries appearing in the top three positions most frequently (i.e. in five pillars out of nine), followed by Finland and Estonia.

The rankings of 2008–09 confirm Denmark's superior capacity to leverage ICT for overall national competitiveness: the country has ranked consistently in the first place since 2006. The country demonstrates an outstanding result, ranking 4th, 2nd, and 1st in the environment, readiness, and usage components, respectively. In particular, the government's clear and consistent vision on the importance of ICT diffusion (2nd and 1st, respectively, in the government readiness and usage) reflects in an extremely ICT friendly regulatory environment (2nd), with the world's most-developed ICT legislation; it has also helped in achieving among the highest penetration rates worldwide (Irene Mia, Soumitra Dutta, 2009).

An important element of the government's ICT prioritisation in Denmark was the liberalisation of the telecommunications sector in 1996, well ahead of most fellow members of the European Union.

Finland, Denmark and Sweden each is ranked at the 1st place in one pillar. Finland benefits of the highest individual readiness, respectively Denmark leads in the government usage, but Sweden, in turn, top the league for the usage, respectively, of their business sectors.

Swedish businesses appear among the most innovative in the world (4th for capacity of innovation and firm level technology absorption) and are using the Internet extensively in their transactions (2nd) (Irene Mia, Soumitra Dutta, 2009).

In Estonia, in particular, ICT diffusion eased and facilitated the transition from a planned economy to an extremely competitive market economy in less than 20 years, thanks to a visionary leadership and the government's continuous prioritisation of innovation and universal ICT access as a tool for improved growth and competitiveness.

In 2008 Estonia continues to keep the top of the rankings, gaining two positions from 2007, showing that a small country can succeed, when coupled with the right ICT and competitiveness-friendly policies and with a vision of a fully networked society.

On the other side of the spectrum Poland (69th) continue to trail behind. Poland has not overcome perennial weaknesses in its networked readiness landscape, such as the poor market and regulatory environment (ranked 87th and 100th, respectively) and the marginal importance given by the government to ICT in its national agenda (103rd and 127th for the government readiness and usage, respectively).

In their turn Latvia and Lithuania keep the bottom of ranking at 48th and 35th position respectively.

Notable competitive advantages and disadvantages of Latvia

As long as during the past years two post Soviet countries Estonia and Lithuania improved their rank, meanwhile Latvia and Poland continued to lose their positions (Figure 4). One of the reasons is that broadband coverage in rural areas remains an issue and broadband penetration is still lower than the average, as is the connectivity of households. With only 62% of enterprises having broadband internet access, Latvia is placed at the bottom of the European ranking as well (23rd) (Irene Mia, Soumitra Dutta, 2009). No significant progress can be observed in the area of broadband over the last years.

Table 2 shows areas that need for the improvement and first of all relating to government institutions responsible for policy making and regulation environment, moreover *Effectiveness of law-making bodies* is ranked as 86, but *Efficiency of legal framework* as 79. It is much worse in comparison with Estonia (39 and 31) and almost similar with Lithuania: 88 and 73. An experience

in exploiting ICT means for the improvement effectiveness of the government institutions is assessed as 96 for "*ICT use and government efficiency*" and as 109 for "*Government success in ICT promotion*" correspondingly. In opposite the Estonian government institutions efforts are assessed by rank 2 and 5, while Lithuanian results by moderate ranks: 43 and 50. Thus it seems it is difficult to expect notable improvements in the near future, because "*Importance of ICT to government vision of the future*" is far behind at the 110th place, but "*Government prioritisation of ICT*" is ranked on the 94th position also far behind Estonia and Lithuania.

Table 2 also provides the evidence of weaknesses of some environment components such as "*State of cluster development*", "*Availability of scientists and engineers*", which are common for all three republics, nevertheless the state of "*Quality of scientific research institution*" is much better in the neighbouring countries (Estonia 25, Lithuania 46, while Latvia only 88).

Nevertheless the number of variables, which characterise the environment for business in Latvia, appears to be better than in the neighbouring countries, so "*Number of procedures required to start a business*" (LV- 16, EE - 15, LT - 46) and "*Number of procedures to enforce a contract*" (LV - 9, EE - 55, LT - 14). If to compare variables characterising individual usage of ICT, it appears that Latvia takes position in the middle of three Baltic states, but concerning tax burden Latvian environment is more preferable for business, because a variable "*Total tax rate, 2007*" is for Latvia - 33, Estonia - 86, and for Lithuania - 81.

Analysis of the variables in Table 2 reveals considerably low priority of ICT in the Latvian government agenda, e.g. most of the variables that expose political and regulatory environment, government readiness and usage of ICT by government are much worse than in Estonia and Lithuania.

The authors of the article made a presumption concerning 9 variables that characterise the government attitude towards ICT and do not require additional investment into infrastructure, for example, "*Government prioritisation of ICT*", "*Importance of ICT to the government vision of the future*", "*Government success in ICT promotion*" etc. In case Latvia has values of the mentioned variables at least at Lithuanian level it would be raised from the 48th position to the 43rd and such European countries as Italy and Slovak Republic would be left behind, but on the whole ranking list Latvia would be at the position in front of Thailand, China, and Jordan.

Making the above described presumption the authors calculated possible changes of Latvia's ability to compete. In the year 2008 Latvia took the 68th position among 134 countries and the 25th place among the European Union member states in the Global Competitiveness Index list (Claus Schwab, Xavier Sala-i-Martin, 2009). In case Latvia has values of the mentioned above variables at least at Lithuanian level, the Global competitiveness index

Table 2

Notable competitive advantages and disadvantages of Latvia

NOTABLE COMPETITIVE DISADVANTAGES		NOTABLE COMPETITIVE ADVANTAGES	
Network Readiness Index 2008	Rank/48	Network Readiness Index 2008	Rank/48
Environment component	47	Environment component	47
Market environment	49	Market environment	49
Availability of latest technologies	66	Total tax rate, 2007	33
State of cluster development	112	Number of procedures required to start a business, 2008*	16
Burden of government regulation	76	Political and regulatory environment	46
Political and regulatory environment	46	Number of procedures to enforce a contract, 2008*	9
Effectiveness of law-making bodies	86	Time to enforce a contract, 2008*	11
Judicial independence	71	Infrastructure environment	47
Efficiency of legal framework	79	Secure Internet servers, 2007*	38
Infrastructure environment	47	Education expenditure, 2006*	25
Availability of scientists and engineers	112		
Quality of scientific research institutions	88		
		Readiness component	59
Readiness component	59	Individual readiness	55
Individual readiness	55	Internet access in schools	32
High-speed monthly broadband subscription, 2006*.	80		
Lowest cost of broadband, 2006*	69		
Cost of mobile telephone call, 2006*.	88	Business readiness	60
Business readiness	60		
Local availability of research and training services	75		
Company spending on R&D	72		
University-industry research collaboration	83		
Business telephone connection charge, 2006*	72		
Local supplier quality	67		
Local supplier quantity	107		
Government readiness	76	Government readiness	76
Government prioritisation of ICT	94		
Government procurement of advanced tech products	100		
Importance of ICT to government vision of the future	110		
		Usage component	46
Usage component	46	Individual usage	39
Individual usage	39	Personal computers, 2006*	30
Business usage	62	Internet users, 2007*	27
Firm-level technology absorption	81	Internet bandwidth, 2007*	22
Capacity for innovation	71	Business usage	62
Government usage	74	Government usage	74
Government success in ICT promotion	109	Presence of ICT in government offices	44
Availability of government online services	86		
ICT use and government efficiency	96		

Source: made by the authors according to the data of The Global Information Technology Report 2008–2009, INSEAD

would be raised from 4.06 to 4.12 and Latvia would improve its position from 68th to 64th place and would take the position in front of Kazakhstan, Botswana, Uruguay, and Romania.

Conclusions

Seven CBR countries dispose diverging results in the acquisition of ICT means. While the Nordic countries Denmark, Sweden, and Finland demonstrate high sustainable results not only among the European countries, but also among 134 most developed

economies, the countries of the former Soviet bloc except Estonia still lag behind. Estonian example shows that the right ICT and competitiveness friendly policies coupled with a vision of a fully networked society ensure successful results.

Latvia, which takes the 6th position among seven countries leaving behind only Poland, provides the evidence of weaknesses of some environment and readiness components, whilst the country demonstrates advantages in the areas such as market environment and individual usage. Analysis of the

variables of the NRI reveals considerably low priority of ICT in Latvian government agenda in comparison with other CBR countries.

The acquisition of ICT by business, individuals and government institutions provides a positive impact on the competitiveness of a country. The analysis provided by article authors shows that Latvia has a real opportunity to improve its competitiveness by the acquisition of ICT means. So that comes true, it is necessary that the government institutions such as the Ministry of Regional Development and Local Municipalities, the Ministry of Communications and other institutions would assign higher priority to ICT in their agenda.

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Стратегическая цель национальной аграрной политики Польши и основные направления ее достижения

Strategic Aim of the National Agrarian Policy of Poland and Main Directions towards its Successful Implementation

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Abstract. The paper presents the strategic aim of national agrarian policy of Poland and main directions towards its successful implementation. The research has been done on the basis of habilitation materials collected by the research author in the period of 2004-2009 and focused on the main changes in Polish agrarian sector and policy after Poland's accession to the European Union. The paper discloses the basic criteria leaving an impact on the main aim of agrarian policy of the state: assurance of food security of the state. It was concluded that food security of the state may be assured by stimulating economic conditions of agro-industrial production, and supporting profitable enterprises with the use of progressive technologies in the whole agrarian sector.

Key words: agriculture, rural areas, European Union, rural policy, Polish agrarian sector.

Введение

Устойчивое развитие сельского хозяйства представляет собой процесс воспроизводства объемов производства, материально-технического и ресурсного потенциала, стимулирующих экономических условий и механизмов поддержания сбалансированности рынка, при котором в каждом последующем производственном цикле возобновляются, прирастают и качественно совершенствуются средства производства, что в комплексе обеспечивает продовольственную безопасность страны, пропорциональное развитие сельского хозяйства в соответствии с другими отраслями экономики, сельских и урбанизированных территорий.

В 1992 г. на Всемирном форуме ООН по окружающей среде и стабильному развитию в Рио-де-Жанейро была предложена новая Глобальная концепция устойчивого развития. Суть её в том, что каждое государство должно обеспечивать сбалансированное решение социально-экономических задач и проблем сохранения и поддержания окружающей среды и природного ресурсного потенциала в целях удовлетворения потребностей нынешнего и будущего поколений людей.

Исходя из данной концепции сельскохозяйственное производство должно рассматриваться как социальная эколого-экономическая система, состоящая из экологической, социальной, социально-правовой, организационной и организационно-экономической подсистем. При этом должна учитываться не только экологическая, но и сложная экономическая обстановка в аграрном

секторе различных стран и необходимость перехода к природоохранному хозяйствованию на основе сочетания долгосрочной экологической безопасности и экологической эффективности, социальной сбалансированности и целевой продуктивности.

Отмечая специфику сельского хозяйства и необходимость ее учета при разработке концепции устойчивого развития установлено, что особенности сельскохозяйственного производства применительно к нынешним условиям, это:

- важнейшая жизнеобеспечивающая отрасль, производящая виды продукции, без которых человек не может существовать;
- в отличие от промышленных предприятий, сельскохозяйственное производство расположено на обширных территориях, обусловлено биогеографической средой и природно-климатическими факторами, что предопределяет неустойчивость продуктивности;
- в производственном процессе задействованы синтезирующие биопродукцию растения, животные микроорганизмы;
- производство, позволяющее через растения эффективно использовать солнечную энергию и другие природные ресурсы (воду, воздух и др.);
- производство, которое предполагает необходимость индивидуального и коллективного труда, как важнейшего фактора использования агроэкосистем с целью получения биологической продукции;
- производство, которое становится эффективным в диалектическом единстве



Примечание – Источник: собственная разработка

Рисунок 1. **Стратегическая цель национальной аграрной политики Польши и основные направления ее достижения**

природы и человека, экологических и экономических факторов и интересов.

В статье представлено обобщение результатов анализа, проведенного автором в рамках подготовки диссертационной работы на соискание ученой степени доктора экономических наук по специальности 08.00.05 – экономика и управление народным хозяйством.

Результаты исследований

С ростом государственной поддержки польского сельского хозяйства многие агропромышленные предприятия смогли усилить свои позиции на внутреннем рынке и адаптироваться к жесткой рыночной конъюнктуре и новой финансово-кредитной системе. При увеличении потребительского спроса на продовольствие сельские товаропроизводители стали гибко реагировать на конъюнктуру рынка, наращивать производство и поставки продукции, а при изменении рыночной ситуации – быстро находить новые эффективные каналы сбыта.

Отрицательно влияет на деятельность аграрных предприятий незавершенность формирования рыночной инфраструктуры, находящейся в переходной стадии. Многие экономические механизмы в Польше имеют смешанный характер, где сочетаются административные и рыночные начала. В условиях либерализации торговых отношений некоторые виды продовольствия вытесняются с внутреннего рынка импортными поставками, чему способствует либерализация торговли со странами Европейского Союза после вступления Польши в ЕС.

Стратегическая цель национальной аграрной политики заключается в обеспечении

продовольственной безопасности страны и поддержании сбалансированности продовольственного рынка по спросу и предложению. Основные направления ее достижения, по данным наших исследований, представлены на рисунке 1. Рассмотрим каждое из них в отдельности.

1. Реформирование предприятий. Системный анализ показал, что в Польше предстоит продолжить поиск и внедрение эффективных организационно-производственных форм агропромышленных предприятий. Обострилась проблема выбора путей реструктуризации экономически недееспособных государственных и частных хозяйств. Практика подтвердила, что в отношении государственных предприятий среди способов реструктуризации, нашедших применение в стране, а это продажа предприятий, аренда юридическими и физическими лицами и антикризисное управление Агентством имущества государственной казны, наиболее эффективны две первых из названных моделей реструктуризации. Значительный эффект может быть получен в перспективе при сохранении крупнотоварного производства, что дает возможность применять современные технологии и высокопроизводительную технику, формировать крупные пулы товарной продукции, концентрировать финансовые и материальные ресурсы для решения текущих и долгосрочных экономических и социальных задач. Этот аспект важен и для частных предприятий, реструктуризация которых целесообразна на основе укрупнения земельных наделов фермерских хозяйств,

- их включения в процессы кооперации и интеграции. Исследования подтвердили наибольшую целесообразность трех вариантов. Первый – для экономически слабых, хронически неплатежеспособных и убыточных сельскохозяйственных организаций – разделение на более мелкие и самостоятельные производственные подразделения, создание на месте прежних инертных внутренних организационно-производственных структур новых эффективных самохозяйствующих формирований (кооперативов, товариществ, партнерств, фермерских хозяйств и т. д.), переспециализация предприятий и подразделений, переукомплектование их материальными и трудовыми ресурсами. Второй пригоден для абсолютного большинства функционирующих сельскохозяйственных предприятий. Это, как правило, предприятия с индустриальными технологиями, имеющие относительно неплохое техническое оснащение, сохранившие квалифицированный персонал, способный быстро восстановить эффективное производство. В таких хозяйствах активизируются процессы трансформации опосредованной (кооперативной, общественной) собственности в частную собственность самих товаропроизводителей путем приватизации и персонификации, а затем переобъединения на частных условиях в новые хозяйственные структуры различных форм в зависимости от экономических интересов. В перспективе они должны стать крупнотоварными коммерческими сельскохозяйственными предприятиями, производящими и поставляющими на рынок необходимые партии конкурентоспособной продукции под потребительский спрос, являться эффективными объединениями собственников, вовлекающими в активный оборот материальное имущество своих членов и землю, арендуемую у государства. Экономически целесообразна и юридически обоснована реорганизация таких предприятий в частные кооперативные объединения и товарищества, когда контроль над деятельностью приобретают члены кооператива и товарищи, насущно заинтересованные в эффективности и несущие полную материальную ответственность по всем обязательствам своим имуществом.
2. Организация эффективной системы переработки сельскохозяйственной продукции. Перерабатывающие предприятия, особенно в мясомолочной, овощеконсервной и сахарной промышленности, в конкуренции за рыночный сбыт в последнее время начинают устанавливать долгосрочные связи с сельскохозяйственными товаропроизводителями. Созданы и продолжают совершенствоваться сырьевые зоны. Вместе с тем, исследования показывают, что для устойчивой перспективы важно не ограничиваться сырьевой или продуктовой контрактацией, а переходить к производственной, вкладывая средства в развитие хозяйств-поставщиков сырья. Целесообразно создавать вертикальные и горизонтальные агропромышленные объединения и продуктовые подкомплексы по технологическим цепям от производства сырья до фирменной торговли готовым продовольствием. При этом одним из приоритетов должно быть инвестирование финансовых ресурсов не только в переработку сырья и сбыт продукции, но и в производство сырьевых ресурсов, одновременно углубляя специализацию и осуществляя концентрацию производства, а также проводя естественное селективное поставщиков сырья и участников агропромышленной кооперации по критериям эффективности. Целесообразно, чтобы крупная перерабатывающая промышленность стала занимать доминирующие позиции в агропродовольственном комплексе, поскольку концентрация переработки сырья в слабых в финансовом отношении небольших сельскохозяйственных предприятиях не может привести к подъему отрасли. Это согласуется с новой стратегией, которую Польша приняла при вступлении в Европейский Союз, который предъявляет повышенные требования не только к качеству сельскохозяйственного сырья и продовольствия, но и к условиям переработки, когда продукция должна быть полностью сертифицирована. Изучение показывает, что быструю модернизацию технико-технологической базы крупных перерабатывающих предприятий в основном за счет собственных средств можно осуществить в составе специализированных и интегрированных агропромышленных объединений, кооперативов и продуктовых подкомплексов, работающих на сбыт и поставляющих на рынок крупные партии конкурентного и качественного продовольствия, дающего требуемые доходы.
 3. Создание системы рыночного сбыта продукции. Исследования показывают, что функционирование рыночной системы сбыта основывается на свободном движении товаров, конкуренции и ценообразовании с учетом спроса и предложения, возможностей производства и потребительских способностей. В этой связи, как свидетельствует экономическая теория, продвижение сельскохозяйственной продукции к конечному потребителю целесообразно осуществлять по различным каналам – через кооперативную и фирменную сеть производителей и переработчиков, оптовые продовольственные рынки, ярмарки, торговые дома, супермаркеты. Механизмом, обеспечивающим эффективные закупки сельскохозяйственной продукции для государственных нужд, должно стать конкурсное размещение государственного

- заказа. Государственные квоты должны быть выгодными товаропроизводителям. Не всяким производителям и поставщикам государство должно предоставлять такие квоты, а только эффективным, надежным и стабильным. Квоты должны иметь твердый и долгосрочный характер, предусматривать взаимовыгодные условия для товаропроизводителей и государства. Практика хозяйствования последних лет подтверждает необходимость активизации политики государственного протекционизма национального сельского хозяйства, обеспечивающей отечественным товаропроизводителям требуемые условия для нормальной конкуренции на внутреннем и внешнем рынках сельскохозяйственной продукции путем применения стимулирующих субсидий, механизмов экономической поддержки, обоснованных квот и налогов. Кроме того, стоит задача обеспечить свободный доступ всех отечественных товаропроизводителей на внутренние рынки страны вне зависимости от их формирования. Предстоит осуществить координацию межрегиональных экономических связей, согласовать размеры и направления стимулирования производства, выработать действенные меры интервенционного вмешательства государства в поддержание равновесия спроса и предложения, скорректировать стратегию и аграрную политику образования и функционирования продуктовых рынков. Создание рыночной инфраструктуры должно осуществляться в первую очередь на базе имеющейся производственной и сбытовой инфраструктуры и существующего экономического регулятивного аппарата.
4. Развитие рыночной системы материально-технических ресурсов и услуг. Для полного обеспечения сельскохозяйственных предприятий ресурсами промышленного производства и услугами важное значение в новых условиях приобретает ускоренное развитие системы оптовых и розничных рынков. Анализ показывает, что развитие рыночной инфраструктуры в системе продвижения материально-технических ресурсов и услуг для сельского хозяйства должно основываться на широком использовании новых эффективных форм агросервиса, действующих под контролем государства. Протекционизм государства по расширению спроса на материально-технические ресурсы и услуги и доступности их сельским товаропроизводителям может состоять в принятии ряда финансово-экономических мер стимулирующего характера – снижение налоговой нагрузки на предприятия-изготовители, дотирование производства наиболее производительных и дорогостоящих машин и механизмов и требуемых услуг, развития системы лизинговых поставок техники при финансовой и организационно-экономической поддержке государства и др. Целесообразно также расширение сети и функций совместных предприятий по материально-техническому производству и обслуживанию с привлечением иностранного капитала, дилерских пунктов, фирменных центров по широкому спектру агросервисных услуг. Емкость рынка материально-технических ресурсов и услуг в Польше в настоящее время огромна и потенциальный спрос на эту продукцию высок. Важно создать благоприятные условия не только для его насыщения, но и активного функционирования.
 5. Формирование эффективной системы финансово-кредитного обслуживания сельских товаропроизводителей. Изучение показывает, что через финансово-экономический механизм обслуживания сельского хозяйства государство реализует свою функцию приоритетного развития агропромышленного комплекса. Для этого могут использоваться различные меры и рычаги, касающиеся бюджетного финансирования сельского хозяйства и его централизованного ресурсного обеспечения. Мировой опыт подтверждает, что централизованная финансовая поддержка сельского хозяйства вызвана объективными факторами. Это, прежде всего, более низкая производительность труда в сравнении с промышленностью, что приводит к различиям в стоимости производства продукции на единицу затраченного рабочего времени в сельском хозяйстве и смежных отраслях экономики. Однако следует учитывать, что этот фактор проявляется в открытой экономической системе и свойственен странам с эффективной экономикой – в силу того, что технологически более развитые страны обладают сравнительными преимуществами в производстве качественных товаров и оказании многообразных услуг.
 6. Совершенствование налоговой политики. Изучение показывает, что для устойчивого развития действующая система налогообложения сельскохозяйственного производства должна предусматривать значительные льготы, являющиеся по сути не только формой государственной поддержки сельских товаропроизводителей, но и направлением рационализации структуры затрат материально-технических средств на производство. По своей экономической сути бюджетные трансферты в сельскохозяйственное производство и налоговые льготы во многом схожи. Отличие состоит в том, что выделение средств из бюджета, как правило, имеет целевой характер и его регулирующее воздействие является более сильным, чем у льготного налогообложения. В то же время, налоговые льготы не требуют затрат по администрированию государственных финансов. Льготы по уплате налогов – прежде

всего мера повышения доходов предприятий. Если государственная аграрная политика содержит эти цели, предпочтение в механизме ее реализации следует отдавать льготному налогообложению. Для Польши, как уже было сказано выше, задача увеличения доходов сельскохозяйственных товаропроизводителей стоит в ряду самых актуальных. Большинство сельскохозяйственных предприятий Польши – семейные фермы. В этой связи налогообложение сельского хозяйства в Польше должно быть как в настоящее время, так и в обозримой перспективе максимально простым. Польские хозяйства, как и белорусские, должны иметь возможность уплаты лишь небольшого перечня налогов на производство и доходы (вплоть до введения единого налога), призванных заменить многие виды налогов и значительно упростить процедуру их исчисления и уплаты.

7. Совершенствование ценовой политики. Изучение теории и практики ценообразования показывает, что проблема цен должна предусматривать комплекс мер по достижению ценовой сбалансированности между различными видами сельскохозяйственной продукции, а также между сельхозпродукцией и ресурсами промышленного происхождения для сельского хозяйства. В первом случае решение проблемы является обязательным, поскольку призвано создать равнозначные экономические стимулы для производства всех видов животноводческой и растениеводческой продукции. В отдельных случаях ценами можно регулировать мотивацию производства важнейших видов продовольствия. Во-втором случае – желательным, поскольку полного паритета между продукцией сельского хозяйства и промышленными средствами производства в условиях социально ориентированной экономики и сильного государственного регулирования достичь практически невозможно. К межотраслевому паритету в данном случае следует стремиться, пытаться не допустить увеличения «ножниц цен». Он достижим только в условиях свободного рыночного ценового равновесия во всех отраслях реальной экономики, но тогда осложняется задача обеспечения социальных гарантий населению страны, устойчивого развития социальной инфраструктуры. Основные же функции государства состоят в поддержании сбалансированности социального развития. Это, как известно, вызывает политику сдерживания цен, в первую очередь на продукцию сельского хозяйства, необходимость централизации части вновь созданных стоимостей, распределения и перераспределения средств, созданных производственными предприятиями, в пользу социальной сферы.

Важно также отметить то, что устойчивое развитие сельского хозяйства Польши требует перехода от отраслевого к региональному

комплексному развитию сельских территорий, более полной мобилизации местных факторов эффективности сельскохозяйственного производства (рационального использования трудовых ресурсов, повышения квалификации специалистов, учета интересов предпринимателей, учета зональных особенностей, оценки рыночного спроса и т.д.).

Заключение

Проведенные исследования теоретических основ устойчивого развития сельского хозяйства позволяют сформулировать следующие основополагающие выводы и предложения для теории и практики Польши. Проблемы последовательного и устойчивого развития польского сельского хозяйства с учетом интеграционных процессов в связи вступлением страны в Европейский Союз и функционированием национального АПК адекватно рыночным условиям ЕС обуславливают необходимость научного уточнения экономической сущности и содержания категории устойчивого развития сельского хозяйства в соответствии с требованиями рыночной экономики.

Применительно к аграрной сфере в условиях формирования сбалансированного по спросу и предложению рынка устойчивое развитие сельского хозяйства следует рассматривать прежде всего как процесс расширенного воспроизводства объемов производства, материально-технического и ресурсного потенциала, стимулирующих экономических условий и механизмов поддержания сбалансированности рынка, при котором в каждом последующем производственном цикле возобновляются, прирастают и качественно совершенствуются средства производства, что в комплексе обеспечивает продовольственную безопасность страны, пропорциональное развитие сельского хозяйства в соответствии с другими отраслями экономики, сельских и урбанизированных территорий. Данная научная трактовка определения понятия категории устойчивого развития сельского хозяйства может служить исходной базой для решения конкретных прикладных задач на единой теоретической и методологической основе.

Установлено, что обеспечение продовольственной безопасности Польши можно достичь посредством создания стимулирующих экономических условий роста агропромышленного производства, поддержки деятельности эффективных предприятий на основе использования прогрессивных технологий. При этом основная сумма централизованных предпочтений должна быть направлена на развитие высокококупаемой экономики. В этой связи нами обоснована комплексная стратегия развития польского сельского хозяйства и основные механизмы ее реализации, заключающиеся в совершенствовании земельных отношений, реформировании предприятий, организации эффективной системы переработки

сельскохозяйственной продукции, создании системы рыночного сбыта продукции, развитии рыночной системы материально-технических ресурсов и услуг, формировании эффективной системы финансово-кредитного обслуживания сельских товаропроизводителей, совершенствовании налоговой и ценовой политики.

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Small and Medium-sized Enterprises versus Rural Development in the View of Sustainable Development

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Abstract. The Strategy of Sustainable Development for Poland until 2025 shall be supported by appropriately designed programmes including the policy of: economic development, fuels and energy, agricultural development, transport, spatial management of the country and regions, social policy, ecological policy, financial and fiscal policy as well as activities of administration and legislative and institutional solutions.

Key words: rural development, small and medium-sized enterprises (SME), sustainable development.

Introduction

Measures aimed at multi-functionality of agriculture, reduction of unemployment, and improvement of living standards and economic aspects in rural areas are the most important elements for rural development in Poland. Rural areas constitute 93.2% of the country territory and their importance from the economic, social and environmental viewpoints is enormous.

Despite their little influence on the environment and small range of activity, small and medium-sized enterprises (SME) in Poland may be undoubtedly identified a driving force shaping the whole Polish economy due to their large number and contribution to the GDP.

The paper aims to present the importance of small and medium-sized enterprises operating in rural areas in the context of assistance in the form of legal regulations and suitable instruments of support from local governments. The paper also reveals the barriers slowing down the development of SME sector.

1. Small and medium-sized enterprises sector in Poland

Small and medium-sized enterprises constitute the most important element of each economy. The highest increase in newly created jobs is noted in this sector, and also such companies lose work much slower in case of the market collapse than larger businesses. The condition for efficient market operating is the economy to a great extent based on a large number of small companies.

Theoretical literature distinguishes two possibilities for determining the size of an enterprise including:

- quantitative criteria based on the use of absolute magnitude measures, e.g. the number of employed persons, value of fixed assets or value of turnover;
- qualitative criteria referring to non-measurable features, comprising among others innovativeness, creativity or management

system. The state or position of an enterprise among the other enterprises may be assessed on the basis of these criteria (Piasecki 2001).

Therefore, according to the European Commission Regulation EC No. 70/2001, amended by the EC Regulation No. 364/2004, the following definition of small, medium-sized and micro-enterprises, irrespective of their legal form¹, has been mandatory in all the European Union countries, including Poland:

- *microenterprises* – employ less than 10 persons, their annual turnover does not exceed EUR 2 million, and/or total annual balance-sheet does not exceed EUR 2 million;
- *small enterprises* – employ less than 50 persons, their annual turnover does not exceed EUR 10 million, and/or the annual balance-sheet does not exceed EUR 10 million;
- *medium-sized enterprises* – employ less than 250 persons, their annual turnover does not exceed EUR 50 million, and/or the value of the annual balance-sheet does not exceed EUR 43 million.

The structure of Polish small and medium-sized enterprise sector is similar to the one in the European Union: 90% are small enterprises employing up to 50 persons; medium-sized enterprises constitute 0.8% and large enterprises make 0.2%. According to the data of the Polish Agency for Enterprise Development, SMEs are most often engaged in trade and repair sector (39.4%), industrial production (13.7%), construction industry, real property services, and transport and communication (Figure 1).

Despite various criteria and methods for classification of small and medium-sized enterprises, it is assumed that they have some common universal features which distinguish them from large companies. The distinguishing features are as follows:

- system of management – one or several owners who are personally involved;
- the enterprises are private property of one owner or a small number of persons;

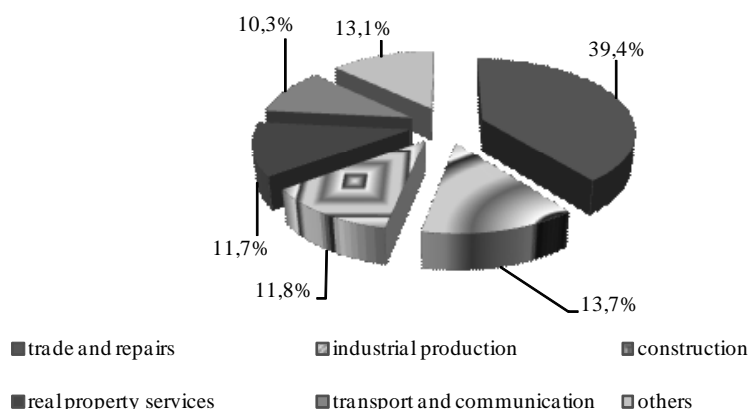
¹ O.J. EU L 124 dated 20 May 2003

Table 1

Small and medium-sized enterprises according to the criteria of the European Union

Criterion	microenterprises	small	medium-sized
Number of employees	< 10	< 50	< 250
Annual income Balance sheet	-	< EUR 7 million < EUR 5 million	< EUR 40 million < EUR 27 million
Independence	-	No more than 25% of capital or votes at the partner meeting may be owned by an enterprise which is not a SME	

Source: Broda M., Szubra M., 2000



Source: Report on the State of SME Sector in Poland in the Years 2006-2008, PARP Warszawa

Figure 1. **The structure of persons employed in SME sector as of the end of 2008, %**

- their operation is based on local demand and resources of uncomplicated technology;
- the basis for starting their activities and further development to a great extent depend on their own capital;
- these enterprise have no dominant position on the market, therefore they operate on the conditions of a very strong competition (Piasecki 2001).

Small and medium sized enterprises may gain advantages over large companies among other in the following situations of:

- efficient and fast reaction to the changing environment – easily joining proper cooperative structures through quick forming of new jobs, openness to innovation which may be more easily verified by the market needs, effective use of various chances and market opportunities, efficient information flow within the enterprise, operation based primarily on meeting definite needs on the local market, better competitiveness which is possible to achieve in case of strict control and reduction of costs (Skworonek-Mielczarek 2007).

The most important characteristics of MSP comprise:

- ability for a very fast response to the changing market demands;
- openness to new technologies and innovation;

- small costs of workplace;
- ability to create new jobs;
- easy adjustment to the time, place and resources;
- presence in all the sectors of economy (Dach 2001).

Small and medium sized enterprises are capable of creating new jobs at relatively low costs, which is important not only for the economy (labour market), but also for the society (alleviating social tensions caused by unemployment) in general. From the economic point of view, a positive aspect of SME operations is their cooperation with large companies, since they remain valuable partners as subcontractors which ensure flexible implementation of needs related to the quantity, quality, and technology.

However, there are several barriers hindering the development of SME sector: mainly the lack of processing abilities of the management; high operation costs of financing, domestic legal regulations (taxes, the EU regulations) as well as research and development costs. Regarding the barriers to SME development over a long period of time one should pay attention to the elements connected with export restrictions, development costs, limited market demand and difficult access to new markets (Skowronek -Mielczanek 2003).

Lack of necessary information and clear legal regulations, which are frequently amended is the

main obstacle followed by the changes occurring in Poland and faced by domestic enterprises. Fiscal policy in Poland does not provide any financial support for SMEs, which forces them use other sources of financing favouring their competitiveness.

Investigations conducted by the Market Research Agency "Opinia" have pointed to the areas, which should be changed, improved or adjusted to the needs of enterprises. It would allow offering the opportunities for going out of stagnation. The elements most affecting this process are the following: tax cuts (71.4%), too high costs of labour and social security (60%), and improved terms of credits for companies (53%) (Agencja Badań Rynku "Opinia", 2008).

Problems with capital acquisition and financial liquidity limit investment activities in this sector. One-person businesses face the gravest problems with paying their dues. According to PARP 65% of these enterprises have low financial liquidity.

2. Problems of sustainable development

Sustainable development is a term defined in various ways, as it often has different interpretations. According to the statements of the UN Conference in 1992 held in Rio de Janeiro the term denotes: "lasting and balanced development, i.e. the one which will ensure meeting the needs of contemporary society without spoiling the prospect of meeting the needs of future generations (Kaliszczak 2001).

An example of complex definition of sustainable development in Poland was provided by the Institute for Eco-Development. It assumes that the aim of socio-economic development is improving the quality of life. Ensuring welfare to the present and future generations is connected with a process of constant structural changes in the economy and the whole society leading to:

- improvement (or least not worsening) of the quality of natural environment;
- better care for the health state of the society;
- conservation and protection of nature;
- rational resource management;
- pro-ecological directions of development (Łojewski 1999).
- The economic dimension of sustainable development specific for Poland should comprise:
 - inviolability of private property;
 - guarantee of political and economic support for individual entrepreneurship, primarily for the development of small and medium-sized enterprises;
 - state support for scientific research, technological development and patents aiming at improving the efficient use of energy, raw materials and fossil fuels as well basing manufacturing processes on renewable resources;
 - continuity and permanency of financial, state fiscal and investment policy ensuring competitiveness on domestic and international markets for ecologically pure products manufactured using more modern technologies;
 - guaranty of gradual withdrawal of State subsidies for enterprises including indirect subsidies

for economically and ecologically unjustified production;

- guaranty of political, administrative and financial support for production, raw material recovery and recycling of wastes;
- improvement of information and communication technologies, basing decision-making processes on proper information and analysis of profits and costs, including ecological and social costs, as well socialisation of decision-making processes.

The economic sector is primarily responsible for implementation of these tasks; however also budget, public finances, marine and water economy sectors, financial institutions, science, agricultural and the State Treasury sector as well as justice, higher education, transport, natural environment, social securities sector and health sector should also be held responsible.

3. Entrepreneurship as a factor of rural development

In rural areas entrepreneurship remains the leading aspect for fighting growing unemployment. Economic activity results not only in creating jobs but also in professional activation influencing rural areas which until now have mainly been involved in agricultural production.

The idea of sustainable development strictly concurs with the process of multifunctional rural development. Development of these areas is strictly dependent on cumulating various types of off-farm activities, which should eliminate mono-functionality of the country in favour of developing widely understood entrepreneurship.

Entrepreneurship denotes "people striving for action, seeking new solutions, introducing changes in their hitherto activities and embracing the emerging opportunities but also their activity in seeking additional, and alternative sources of income" (Kłodziński 1999).

Entrepreneurship, diversified as to the forms and number of rural economic entities, means mainly small and medium-sized enterprises, whose operations play increasingly important role in the development of many rural regions of Poland. The existence of various economic entities on a given territory provides basis for the development of cooperation between the users of rural space and resulting benefits (Adamowicz 2004).

The process of entrepreneurship development in rural areas is greatly dependant on support from the state and local governments. Therefore, supporting entrepreneurship focuses on:

1. fulfilling legal duties of providing public services resulting from the catalogue of respective laws concerning local government units;
2. local government policy towards the sector of enterprises operating in the area governed by a local government unit.

Legal instruments supporting entrepreneurship have not been defined explicitly. They result from various norms prescribed by many legal regulations, including among others:

- the right for accelerated depreciation of fixed assets;
- income tax relief for joint venture companies operating in the areas threatened with structural unemployment;
- tax relief for natural entities conducting economic activity focused on staff training;
- the right for deduction investment expenses from the income in case of employing the unemployed persons;
- the right (of small and medium-sized enterprises) to get bank guarantees for investment credits;
- preferences to get support from the state budget for enterprise restructuring – regional restructuring programmes;
- subsidies for communes (*gminas*) on the expenses from the state target reserve;
- quotas from Labour Fund means for active forms of counteracting unemployment (e.g. loans for the unemployed for starting economic activity);
- student relief – tax relief for natural entities conducting economic activity focused on pupils' training.

According to the law in force local governments may undertake the following activities to support entrepreneurship:

- application of tax relief or facilitation to get premises or real property;
- providing credit guaranties for the entities undertaking preferred kinds of economic activity;
- providing shares in order to create and develop small enterprises, creating guaranty funds, business incubators or technological parks;
- leasing the existing or creating manufacturing, commercial or service providing facilities;
- establishing research and development facilities stimulating innovation processes in small enterprises;
- granting loans for financing technical progress;
- creating institutions taking economic initiative, including semi-public ones as well as societies and chambers of economy, institutions supporting initiatives, agencies of local and regional development;
- procurements from local governments;
- well considered and organised policy towards investors; organisation of offices based on the principle of complex services for the clients;
- construction of facilities constituting the so-called business infrastructure;
- creating areas of economic activity;
- care for high level of technical infrastructure (roads, communication, sewage treatment plants and waste disposal, sewerage system, media);
- undertaking promotional activities;
- application of possible preference instruments for the entrepreneurs resulting from the law on employment and counteracting unemployment and the executive laws.

Entrepreneurship in rural areas faces various problems; therefore all economic activity supporting

instruments used by the local government are so important. The literature of the subject arranges them into five groups of issues:

1. local development strategies – understood as the evidence of systematised activities of the local authorities in order to support entrepreneurship (integration of the local environment in the process of strategy building). Entrepreneurship development is considered in the local strategies through:
 - appointing strategic aims for entrepreneurship development;
 - elaborating separate strategic documents (the so-called entrepreneurship development strategies);
 - preparation of local sectoral strategies (e.g. tourism development strategy).

Including the issues of entrepreneurship in strategic documents enables businessmen not only to get acquainted with spatial management plans but also with a vision of development presented by local governments (e.g. concerning construction of modern technical infrastructure).

2. investment climate – i.e. local authorities' activities aimed at stimulating development and operations of enterprises (investment policy, fiscal policy, local government cooperation with business circles, supporting the institutions of business environment);
3. training – local authorities' endeavours focused on organisation and financing of various types of training;
4. institutional efficiency – investigations conducted in all Poland signalled an important relationship between institutional efficiency and its components and factors which affect business development;
5. supporting competitiveness of small and medium-sized enterprises – the role of local government in generating demand for locally provided services, products and potential stimulating competition was pointed out (Dziemianowicz, Mackiewicz, Malinowska, Misiąg, Tomalak 2000).

Conclusions

1. The core of sustainable development requires full understanding of the environment, since it provides a place for our activities and forms their fundamental element. It is impossible to implement the overall aim shaping the lasting and balanced development if one does not understand it.
2. Economic dimension of sustainable development shall base on the assumption that its two other elements (social and ecological) are not be inhibitors of progress, but its facilitators through technological progress, improving the education level of society, involving greater share of the society in decision making and responsibility for the decisions, creating new jobs, development of activity and entrepreneurship, including development of small and medium sized

enterprises, as well as greater efficiency directed towards the use of raw materials, material and human labour and improving safety.

3. Poland has considerable achievements concerning the integration of the economic reforms, the issues of natural environment protection and social justice. The experiences are coherent with the activities of the European Union and all other highly developed countries. Therefore, implementing sustainable development in Poland should be a starting point for the realisation of the National Development Plan for 2007-2013. The National Development Plan will significantly affect not only appointing the directions for civilisation development of Poland but also for the ways in which this country plans to accomplish the development in the context of the whole EU.

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Possibilities to Measure Regional Inequalities in Hungary

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Abstract. Dual economic indicators show the degree of inequality measured by the GDP between the wealthiest and the poorest regions. This indicator is ideal to examine duality of these regions relate to each other. The higher value the indicator shows the larger is the gap between "the rich" and "the poor". The indicator shows that the largest gap has been in 2002 between the developed and less developed regions in Hungary, since the value of indicator was near 2. In 2002 only two regions were above the average showing 148.2% above the national average. The number of regions under the average level equals to five including the Northern Hungary and the Northern Great Plain with 71.2% and 72.7% of the national average.

These disadvantageous conditions emerge due to the lack of capital, which has resulted from the low income possibilities mainly of small and medium sized enterprises. The low income conditions were based on the low capital accumulation and low capital investments arisen from long turnover period and less profitable production in economic activities. Small and medium sized enterprises mainly need more support with less possible tax income, while multi- or trans-national companies have considerable tax advantages arisen from which cannot increase revenues of the governmental budget.

The study aims at analysing difficulties resulted by inequalities among different regions of Hungary in their economic developed levels. The study emphasises the importance of economic structure changes for the regions of Hungary based on their comparative advantages to become competitive among the other regions of the EU-27.

Key words: developed – undeveloped regions, measuring methods, regional inequalities.

Introduction

The study aims at analysing and describing difficulties resulted by the gap or inequalities among different regions of Hungary in their economic development levels. The study emphasises the importance of economic structure changes for the regions of Hungary based on their comparative advantages to become competitive among the other regions of the EU-27.

Naturally the economic structure changes need wider economic and social cooperation among different organisations responsible for the economic interest including private companies, cooperatives, small and medium scale ventures, central governmental offices, and also regional authorities.

The analytic and research papers aim at solving social economic difficulties, for example high unemployment rate, less GDP per capita in Hungarian regions than the EU average level, innovation, and infrastructure development.

Some kinds of research methods including data collection, interviews, case-studies, and modelling are needed to analyse these economic difficulties of the regions of Hungary and find solutions for these problems. This paper is a case study to find solutions for decreasing inequalities among the regions of Hungary and other regions of the EU-27.

Territorial concentration for the economic development within globalisation, regionalisation and localisation has become more important. The

examination of differences between economically developed and weaker areas has resulted in the topic selection as well. The research aim was to reveal – from the point of GDP per capita – the situation of the most disadvantageous territories of the country, namely Northern Hungary and Northern Great Plain, in comparison with the same NUTS-2 level regions in the European Union. The authors also tried to analyse the territorial differences inside the two regions with the help of data from the previous years.

Results and discussion

Generally it can be said that the territorial differences of the examined socio-economic phenomenon are multi-dimensional, so they can be characterised by the so-called basic indicators.

Territorial differences can be examined from several – social and economic – points of view. The aim of the study is to create an overview of Hungary's most disadvantageous regions – in the view of Gross Domestic Product.

It was an important factor that not only national but European Union data are available for the selection of indicators. Hence the situation of the two regions became comparable with other countries of NUTS-2 level regions, so the region's situation can be determined in the European area as well.

The analysis is built on several methods. Firstly, the authors examined the changes of relative income position in Hungary and the countries similar to it.

Therefore the authors used the relative dispersion indicator, which gives the value of income dispersion in average percentages. The inequality conception expressed by the relative dispersion shows the rate the data differ from the general ones (Major K., Nemes Nagy, J. 1999).

$$V = 100 \left(\frac{\sqrt{\frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n}}}{x} \right) \quad (1)$$

Based on the reference Lengyel I. has mentioned in his study, the NUTS-2 regions apply the European Union measures for the amount of income expressed as GDP per capita (Lengyel I., 2000). The relatively high income (expressed by GDP per capita) and the relatively high employment (expressed by the employment rate) are the two major factors in the concept of uniform competitiveness. The analysed NUTS-2 regions in the present study are positioned according to their *competitiveness – productiveness, and employment rate*. The authors have used the following model:

$$(GDP/total\ population = GDP/Empled * Empled/People\ of\ working\ age * People\ of\ working\ age/total\ population) \quad (2)$$

which can be described by the following equation:

$$\frac{y}{IH} = \frac{y}{L} x \frac{L}{EA} x \frac{EA}{IH} \quad (3)$$

where:

- IH – total population of the region;
- EA – economically active population;
- y – Gross Value Added;
- L – manpower usage per year (number of employed).

Accordingly $y \cdot IH^{-1}$ refers to the economic development or welfare of a region; $y \cdot L^{-1}$ is a productiveness indicator, which expresses the efficiency of manpower usage; $L \cdot EA^{-1}$ shows the employment rate or how a particular region uses its human resources. The last number shows the rate of people who can be regarded as economically active.

The indicator $y \cdot L^{-1}$ is especially important, so it was a subject to other examinations, which helped the authors determine how much the different sectors have contributed to the productiveness of the region.

The expression is an *economic productiveness indicator*, which shows the productiveness of human resources. This productiveness indicator can be divided into the following factors:

$$\left(\frac{y}{L} \right)_{x\text{r\u00e9gi\u00f3}} = \left(\frac{y_p}{L_p} * \frac{L_p}{L} \right) \oplus \left(\frac{y_s}{L_s} * \frac{L_s}{L} \right) \oplus \left(\frac{y_t}{L_t} * \frac{L_t}{L} \right) = \left(\frac{y_p}{L} \right) \oplus \left(\frac{y_s}{L} \right) \oplus \left(\frac{y_t}{L} \right) \quad (4)$$

where:

- y_p – gross added value in the primary sector of the examined region;
- y_s – gross added value in the secondary sector of the examined region;
- y_t – gross added value in the tertiary sector of the examined region;
- L – manpower usage per year (number of employed).

Next, the authors calculated a *location coefficient*, which is perfectly capable to present the concentration and specialisation in employment. With the help of that it is possible to state which the EU NUTS-2 regions are similar to the analysed two regions of Hungary. Providing that the value of the indicator is higher (lower) than 1, then in the region J the share of sector I is higher (lower) in employment than in the whole country.

$$L_{ij} = \left(\frac{E_{ij}}{\frac{E_{im}}{E_j}} \right) \quad (5)$$

where:

E_{ij} – the number of employed in sector I in the region J;

E_{im} – number of employed in sector I in the whole country;

E_j – whole number of employed in the region J;

E_m – number of employed in the whole country.

Finally, using the dual indicator from the point of GDP per capita the authors were curious whether the territorial differences have increased or decreased in Hungary and in the Northern Hungarian or Northern Great Plain regions during the examined 3 years. The indicator can be expressed as follows:

$$D = \left(\frac{xm}{xa} \right) \quad (6)$$

where:

xm – the arithmetic mean of x_i values higher than x_{mean}

xa – the arithmetic mean of x_i values not higher than x_{mean}

The dual indicator is nothing else but the coefficient of the average of numbers higher and lower than the average of total distribution (Nemes Nagy J., 2004).

It can be stated based on either the GDP indicators or dual indicators that the economic differences are significant in the European Union,

but in the period between 1995 and 2005 these differences have decreased between the wealthiest and poorest regions. While the GDP coefficient of the ten wealthiest and poorest regions was 3.2 in 1995, this number has decreased to 2.4 until 2005. During these changes both the wealthiest and the poorest regions have improved their relative situations. The GDP coefficient of the ten wealthiest EU regions was 192% in 1995 and 198% in 2005. The same indicator for the ten poorest regions equalled to 40% in 1995 and 44% in 2005. In the first group this process has resulted from the influence of globalisation, while in the second group – at least partly – the EU regional policies can explain the results. It must be mentioned that in the European Union with 27 member states the ratio of GDP per capita in the wealthiest and poorest regions has increased from 2.4 to 5.3, and significant territorial differences have occurred at the same time. The data from similar countries to Hungary, like the Czech Republic, Slovakia, Poland, Greece, and Portugal were used for the regional GDP dispersion research. More, the authors used the data from the neighbouring countries Austria and Italy (the reason for the last one is the North – South duality of Italy, and the West – East duality of Hungary).

Table 1 show that all countries have improved their economic conditions in the EU, at least the mentioned regions in the EU member states. In 2005 the average regional GDP figures for the EU-15 were between 20.3% and 24.8%. Both the growth and decline can be found here in comparison with 1995. At the same time the general improvement has resulted in the growth of such territorial differences as in the case of Greece and Portugal, while the decline of Italian economic regions has caused a decline in territorial differences. The reason for the change of this phenomenon could be the stimulation of regional development through Greek and Italian private working capitals; while the other regions of two member states stagnated in production, so the difference could grow between the economically developed levels of the member states.

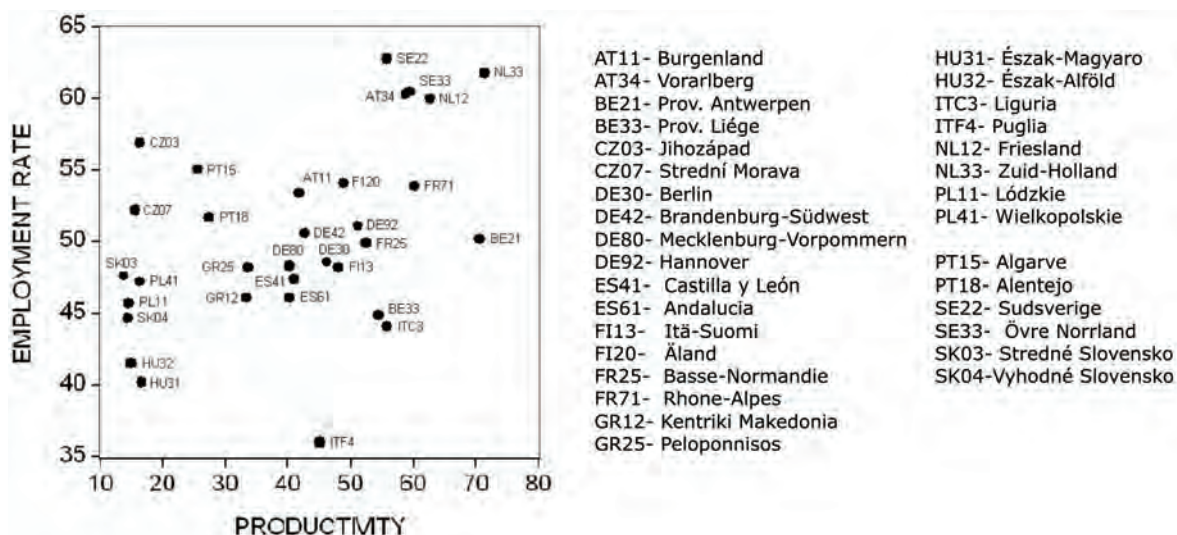
Table 1

Regional inequalities in the EU member states based on relative standard deviation

Country	GDP/person (PPS) in per cent of the EU average (1995)	GDP/person (PPS) in per cent of the EU average (2005)	Relative standard deviation of regional GDP in 1995	Relative standard deviation of regional GDP in 2005
Austria	113.06	120.14	28.6	21.1
Greece	70.25	80.3	17.3	24.8
Italy	103.9	98.04	27.2	24.8
Portugal	61.5	74.7	13.1	20.3
Czech Republic*	63.8	74.3	26.5	40.7
Poland*	35.7	46.2	14.9	22.9
Hungary*	43.0	58.0	28.5	41.1
Slovakia*	46.7	68.3	50.4	61.3

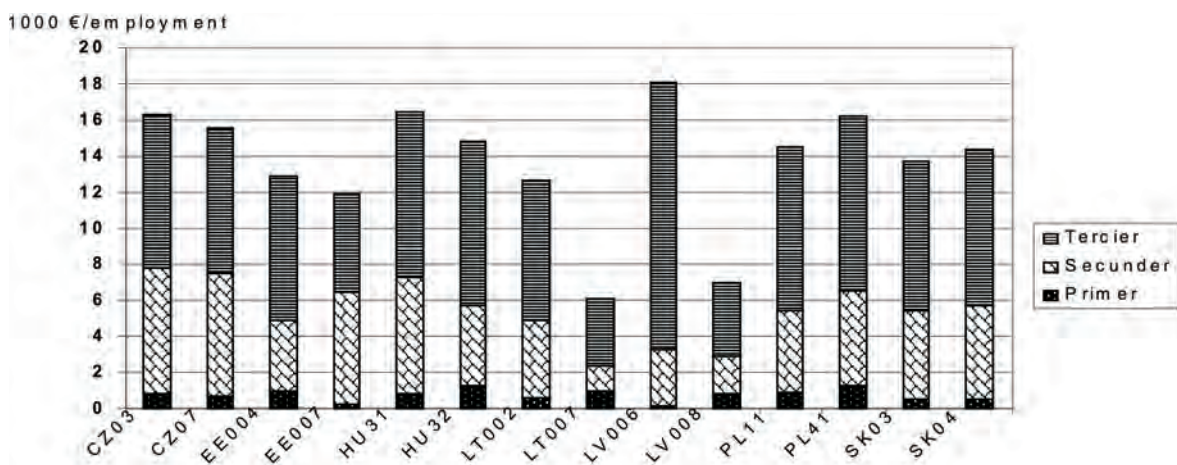
* the EU member states from 2004

Source: authors' calculations according to the Eurostat database



Y axis: employment rate in per cent; X axis: productivity, GDP/person in employment in 1000 EUR/ person
 Source: made by the authors according to the Eurostat data, EUROSTAT, Brussels, 2005

Figure 1. The competitiveness of some EU NUTS-2 level regions in 2005



Source: made by the authors according to the Eurostat, Brussels, 2005

Figure 2. Sectoral GDP production of employments in the examined regions and areas of CEE, 2005

Also it can be stated that in these cases the EU member states did not manage to mobilise their resources, which could decrease regional gaps or there were not enough resources. At the same time there were completely different tendencies in Austria. This country was able to produce more products and it has shown higher economic growth at the same time decreasing territorial differences within the country.

In this case the fewer figures of the four Middle-Eastern European EU member states can be explained by the joining the EU, as these regions were regarded as disadvantageous. It is important to mention that the situation of the so-called disadvantageous regions has improved up to now.

There is a West – East duality in Hungary, and the disadvantage of the Eastern Hungary has become more explicit at present. Joining the EU has provided

Hungary with new economic growing possibilities for the disadvantageous regions.

From the three factors GDP per capita, which represents the uniform competitiveness, productivity, and employment has higher influence on the economic growth of regions than the rate of people of working age, so the authors used the first two to compare the competitiveness of the regions. Figure 1 includes three groups in the view of competitiveness. The first trapezoid group covers the Middle-Eastern European, Portuguese, and Greek regions. The second and third groups comprise the higher developed Western and Northern European regions. Most of the regions fit in the territory with EUR 40-60 000 production and 45-54% of employment.

The figures demonstrate well the most competitive regions such as Sweden, the Netherlands, and Austria, where not only the productivity is high but

Table 2

Change of location coefficient in the examined Central Eastern European regions and areas from 2003 to 2005

	Primary Sector			Secondary Sector			Tertiary Sector		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
HU31	0.845	0.787	0.783	0.967	1.008	1.004	0.920	0.890	0.887
HU32	1.485	1.484	1.459	1.002	0.999	0.949	0.924	0.924	0.940
CZ03	1.349	1.242	1.487	1.028	1.076	1.096	0.902	0.891	0.864
CZ07	1.156	1.244	1.202	1.152	1.091	1.060	0.823	0.848	0.864
EE004	1.795	1.800	1.921	1.061	1.060	1.173	0.958	0.868	0.808
EE007	0.218	0.293	0.498	1.280	1.376	1.356	0.871	0.854	0.943
LT002	0.707	0.792	0.797	1.127	1.135	1.035	1.067	1.052	0.978
LT007	2.602	2.537	3.281	0.638	0.678	0.721	0.733	0.677	0.660
LV006	0.086	0.047	0.050	1.002	1.013	1.004	1.240	1.254	1.177
LV008	1.408	1.685	1.698	1.097	1.010	1.112	0.838	0.856	0.910
PL11	1.247	1.275	1.305	1.091	1.123	1.151	0.952	0.973	0.997
PL41	1.029	1.035	1.050	1.204	1.250	1.291	0.990	1.004	1.020
SK03	1.146	1.056	1.150	1.109	1.038	1.144	1.019	0.981	1.065
SK04	1.047	1.121	1.072	1.042	1.025	1.026	1.103	1.059	1.033

Source: authors calculations according to the Eurostat, Brussels, 2005

Table 3

GDP per capita in Purchasing Power Standard compared with the EU-25 average, %

Regions	2003	2004	2005
Central Hungary	100.3	100.0	104.9
C. Transdanubia	59.2	60.3	60.4
Western Transdanubia	69.0	66.2	63.7
Southern Transdanubia	45.9	45.3	44.6
Northern Hungary	41.0	42.2	42.3
Northern Great Plain	42.2	41.7	40.9
Southern Great Plain	44.2	44.4	43.6
<i>Country</i>	<i>63.4</i>	<i>63.3</i>	<i>64.3</i>

Source: made by the authors according to the Eurostat, Brussels, 2005

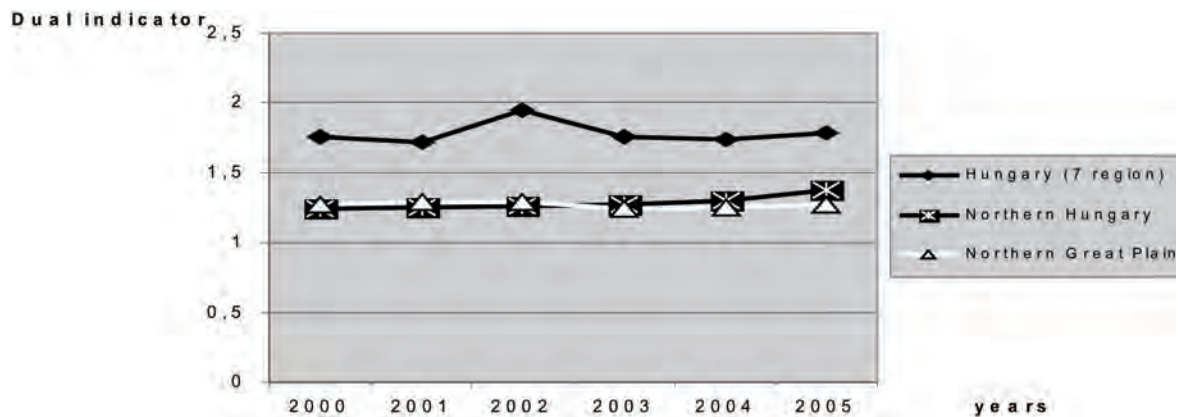
the employment rate as well, so their economic activities influence the economic growth.

It can be seen that the competitiveness of the two Hungarian regions was less developed in 2005, and it is especially true for the Northern Hungarian region, where the two factors influence on the economic development, namely productivity (16 493 EUR/employed person) and employment rate (40.2%) is under the EU standard. Regarding the purchasing power parity, the GDP per capita in Hungary was 64% of the EU average, while the employment was only 50.5%, which is a very low indicator compared with the average EU data. It is generally true that higher productivity and employment of a region can result in a better GDP, which can be seen in Figure 2.

Figure 2 shows the contribution of different sectors to the productivity of a particular region in 2005. It is generally true that industry and services

are dominant in the economic development. The figure shows regions, which are comparable with the Northern Hungary and the Northern Great Plain. The first one can be placed in the same group with the South Bohemia and Central Moravia, where one employed person could increase production in the service sector to EUR 8000-9000 and in industrial activities to EUR 4500-7000. The second group encompasses regions, where the role of agriculture is higher, such as Wielkopolskie and areas EE004, LT007 (950-1250 EUR/employed person); though the income of this sector – as in every region – is highly below the numbers of secondary and tertiary sectors.

During the calculation of location coefficient the authors examined the kinds of movements characteristic to the regions. The calculated figure exceeding the value of 1 means that the share of employment is higher in the region than in the



Source: made by the authors according to the Eurostat, Brussels, 2005

Figure 3. Change of territorial inequalities of the economic welfare in Hungary and counties of the Northern Hungary and the Northern Great Plain

country. Summarising, it can be stated according to Table 2 that the industrial and agricultural features were highly present in most of the examined Middle-Eastern European regions during the studied three years.

In 2005 rural areas were populated by 35% of the inhabitants of Hungary, 38% of the inhabitants lived in the countryside of Poland, and for Slovakia this figure equalled to 42%.

The share of employed people in the primary sector was about 20%, in area LT007 it was 46% as this area is small in size and the density is low.

The exceptions were the Northern Hungarian region, EE007, and LT002 regions, and those ones, where the share of employed in industrial sector was 30-40%. *It can be seen that the tertiary sector was not dominant; it had higher influence with the help of another sector. More qualified manpower and higher wages are found in the regions with industrial activities.*

In Hungary the GDP per capita calculated on purchasing power parity has grown by 0.9% from 2003 to 2005 compared with the EU-25 (Table 3). It can be claimed that this economic growth was not equal among the regions. The authors could find growth in the Central Hungarian region; *stagnancy in the Central Transdanubian, Northern Hungarian and Southern Great Plain regions; and decline in the Western Transdanubian, Southern Transdanubian, and the Northern Great Plain regions.* It is evident that the Central Hungarian region showed the figures similar to the EU standards before and after joining it as well. The other six regions – concerning the income and living standard of the people living there – are under the EU levels.

The dual economic indicators show the degree of inequality measured by the GDP between the wealthiest and the poorest regions. This indicator is ideal to examine duality of these regions relate to each other. The higher value of the indicator shows the larger gap between "the rich" and "the poor" (Figure 3). The indicator depicts that the gap has been the largest in 2002 between the developed and

less developed regions in Hungary, since the value of indicator was near 2. In 2002 only two regions were above the average showing 148.2% above the national average. The number of regions under the average level equals to five including the Northern Hungary and the Northern Great Plain with 71.2% and 72.7% of the national average. By 2005 this diversification has softened (with three regions above average and four under it), but from 2002 there were no significant changes. In 2005 three regions were above the national average with a value of 133.4%. This value was 74% in the case of the Northern Hungary, and 71.4% in the case of the Northern Great Plain.

Concerning the inequalities inside the two examined regions it has to be mentioned that there had not been high difference for the five years. Analysing the differences inside the Northern Hungarian region it can be stated that the highest numbers have been visible from 2003 as the value of dual indicator was higher in 2005 (1.37).

In 2003 the counties under the average indicator (Borsod-Abaúj-Zemplén and Nógrád) had 92% of the regional average, while in Heves County one can see 116% of the GDP production in regional relation. However, by 2005 Borsod-Abaúj-Zemplén got into the group above the average EU level, and the two regions had a value of 110% over the EU regional average.

Cyclic movements can be found in the Northern Great Plain region concerning GDP inequalities. Until 2001 differences were growing, three counties got closer to each other, which was perceptible in 2003 as the value of dual indicator was the lowest that time (1.24). In 2003 the counties under the average (Jász-Nagykun-Szolnok and Szabolcs-Szatmár-Bereg) had 92% of the regional average, while Hajdú-Bihar County had 115%. By 2005 territorial differences grew with a very small amount, the numbers equalled to 91.7% and 116.5% of the EU average level.

Several principles set the strategic development direction for the economic life of Hungary. The

majority of them concern the cooperation of small and medium scale companies based on the basic agricultural production or set up some manufacturing branches in rural areas to strengthen the production of value added products either to domestic or international markets. The other conceptions of the strategy were based on the setting up the cooperative scheme, as the member of cooperatives can better represent the local interests, due to the representation of local, rural and regional areas. Also the local authorities target the foreign capital investments in their regions in order to ensure more jobs. All of these targets can make steps towards the provision of adequate income possibilities for local inhabitants by establishing new jobs.

Conclusions, proposals, recommendations

The research could be implemented based on the use of different kinds of methods, first to collect data and analyse the reasons of differences either among economically developed regions of Hungary and the average regional development of Hungarian regions and the average one EU-27 countries mainly concerning indicators of GDP per capita. The considerable reasons of different economically developed regions of Hungary, from which the Northern Hungarian Region as a traditional industrial region and the Northern Great Plain region were emphasised for the analysis.

In Hungary generally the agricultural sector and the light industry were more dominant sectors than other economic branches, like heavy industry. Also the human and natural resources were adequate to develop the national economy. The high and dry conditions of the Northern Hungarian and the Northern Great Plain regions, which was proved in the study as well, strengthens the existence of this phenomenon concerning Hungary. *During the research the Northern Hungarian and Northern Great Plain regions fell into the most disadvantageous groups compared with the Middle Eastern Europe.*

It should be mentioned that the *Northern Hungarian region has had a small amount of improvement in its ranking in an international perspective, which is mainly due to the development of machine industry and chemical industry.* These disadvantageous conditions arise due to the lack of capital, which has resulted in the low income possibilities mainly for small and medium enterprises. The low income conditions were based on the low capital accumulation and low capital investments, which relate to long turnover period and less profitable production in the economic activities. This process results in a continuously weak and low level of capital accumulation of these companies. Naturally small and medium sized enterprises mainly need more support with less possible tax income for the governmental budget. On the contrary, multi- or trans-national companies have considerable tax advantages, which cannot increase the revenues for the governmental budget. All these reasons also

weaken the capital investments and strengthen the economic difficulties based on the lack of capital. The governmental support possibilities are also at very low level for regional and rural development. Nevertheless the production of basic agricultural materials has adequate possibilities; there is no enough capital capacity to develop production of higher value added products.

Agriculture has played a significant role especially in the flat regions of the Middle Eastern Europe. Its share has exceeded the value of 6% in Łódzkie and Wielkopolskie of Poland and the Northern Great Plain regions of Hungary. The employment rate of agricultural activities is usually higher in these areas.

The possibilities for the Northern Hungarian region depend on the establishment of the conditions for the tertiary sector, which is a crucial point as a resource for the development. The development process is on its way, and the mobilisation of reserved resources in low employment can have much importance in this long-term process. The authors consider that the qualification and education level of population shall be raised thus providing a possibility for attracting and sustaining the service capacities in connection with the processing industry and high technology in the Northern Hungarian region.

The situation of the *Northern Great Plain region* has been a bit worse as for GDP values since the ranking of GDP per capita was at the last place in 2005, even the Northern Hungarian region was in front of it. The competitiveness of ventures in the region is limited due to the *low technical level and consequently the lack of capital, investments, and unfavourable credit conditions.* These unfavourable reasons should be eliminated to strengthen activities and competitiveness of private companies, to ensure their moderate dispersion inside the region, and to stimulate the economic improvement. The development of the two examined regions will be an important question in the future.

The role of services has been constantly growing in the economies of the regions since the end of the 1990s. The strategic aims of the regions are *to create competitiveness and cohesion* at the same time. The national and local authorities are willing to force investors invest more to develop the regions of Hungary, thus ensuring better income conditions for local population with higher employment rate.

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Perspectives of Modelling Latvian Rural – Urban Partnership in the Context of Sustainable Development

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Abstract. The research aim is to analyse the perspectives of modelling Latvian rural-urban partnership in the context of sustainable development. The paper focuses on the study of the opportunities for modelling rural-urban partnership which is an important competitive advantage of the national social, economic, and spatial development in the context of sustainable development. The research hypothesis: rural and urban areas are creators of the economic, social, environmental, and recreational values. The close rural-urban partnership is vitally important for the evaluation of distinction of the rural and urban areas and their potential contribution to the society development as well as to the prosperity of the Republic of Latvia. The research is based on three methods: 1) logically constructive method – logical interpretation of the already published data by other authors on modelling rural-urban partnership; 2) monographic method – interpretation of the data based on proven knowledge about the economic, social, and environmental aspects of the rural-urban partnership, which is a driving-force for regional growth, innovation and employment creation; 3) document analysis method – study and evaluation of the normative documents and scientific researches on rural-urban interaction and partnership development in the context of the research aim. The research results show that it is crucial to develop and promote rural-urban partnership on the basis of mutual benefit principle. It is important that rural and urban areas become or remain attractive, both to residents and businesses. Their capacity to innovate and create new economic opportunities is a prerequisite to ensure that these regions do not loose in the global competition.

Key words: relationship modelling, rural-urban partnership, sustainable development.

Introduction

Urban and rural areas are the socio-economic and spatial planning framework of the human life. The main task of this framework is – creation of the necessary circumstances and settings for life and growth and, accordingly, for human welfare. How harmoniously and contently the framework of the human life and activities is created and filled, depends on the human, who lives and works there.

At the end of the 20th century and at the beginning of the 21st century urban and rural areas are undergoing significant changes. Cities lose vividly expressed dominance of the city centre and converge with the suburban areas. Modern cities are transformed by the affect of urbanisation of the city neighbourhoods. Development of the infrastructure and transport system in the country provides the residents with an opportunity to move from cities to suburban areas, preserving their jobs at the enterprises and companies located in the cities. This process is called suburbanisation and it is connected with the intense development of low-density buildings on the agricultural land around a city (State Regional Development Agency, 2009).

Political and socio-economic processes of the changes ongoing in the urban and suburban areas also affect rural development. Rural areas in some regions become empty, while the land overgrown with weeds turns into summer houses villages. The structure of agriculture becomes more complex, the

functions of rural areas, living conditions, and life style in the rural areas have changed.

World trends also affect Latvia. Consequently, with the socio-economic development of Latvia and its integration into the European Union and global circulation, the continuous changes have happened in rural-urban partnership. Inevitably they affect the national growth and competitiveness, which is one of the milestones for economic development of the Republic of Latvia.

Analysing the processes of promotion the rural-urban partnership development in Latvia, it is necessary to note that very often political decisions about support for cooperation between rural and urban areas are contrary to the coherent development strategies and action plans. Lack of initiative of the state and local government and lack of the scientific researches support in the area of modelling of the rural-urban partnership very often prevent practical possibilities to implement the best practice of cooperation between rural and urban areas.

All the above mentioned facts have given a reason to analyse the perspectives for modelling Latvian rural-urban partnership in the context of sustainable development. It will help provide scientific evaluation of the distinction of rural and urban areas and their potential contribution to the development of the society as well as to the prosperity of the Republic of Latvia. In order to achieve the set aim the following research objectives were defined:

- 1) to analyse the perspectives of rural-urban partnership development in the context of sustainable development;
- 2) to study the opportunities of rural-urban mutual cooperation;
- 3) to evaluate links between the modelling of rural-urban partnership and the concept of sustainable development;
- 4) to draw conclusions and give recommendations for the promotion of Latvian rural-urban partnership in the context of sustainable development.

The research hypothesis: rural and urban areas are creators of the economic, social, environmental, and recreational values. The close rural-urban partnership is vitally important for the evaluation of the distinction of rural and urban areas and their potential contribution to the society development as well as to the prosperity of the Republic of Latvia. The research is based on three methods: 1) logically constructive method – logical interpretation of materials already published by other authors on the modelling of rural-urban partnership; 2) monographic method – interpretation of the data based on the economic, social, and environmental aspects of the rural-urban partnership, which are the driving-forces for regional growth, innovation and employment creation; 3) document analysis method – study and evaluation of the normative documents and scientific researches on rural-urban interaction and partnership development in the context of the research aim.

Results and discussion

Rural-urban development in the context of global change

From the view point of socio-economic development and spatial planning, the Republic of Latvia consists of two national space making elements – rural and urban areas. Cities are characterised by a concentration of buildings and urban infrastructure – streets, squares, transport networks, energy, water, waste management, and other systems. Social infrastructure and security services play a significant role in the urban life. Even a small town cannot dispense without medical institutions, emergency, rescue, social

assistance, and other authorities. Education and cultural facilities are concentrated in urban areas – kindergartens, schools, universities, museums etc. (Kūle, L., 2001).

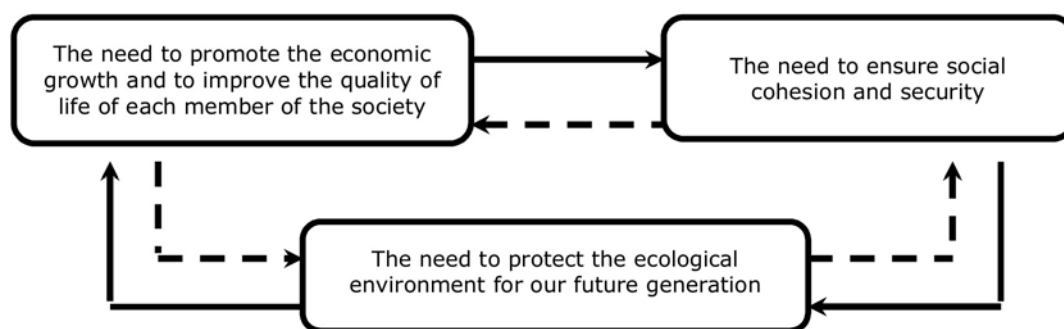
By contrast, rural areas are territories where farming activities and forest management are continuously placed. These areas are characterised by rural settlement and infrastructure. Rural areas occupy the largest share of the territory of Latvia – about 97% of the national territory. From the view point of the Rural Development Programme for Latvia, rural areas are territories with the settlement of farms, villages and small towns, where human life and activities take place (Ministry of Agriculture of the Republic of Latvia, 1999).

Today both rural and urban areas are subject to various economic, social and environmental global challenges:

- demographic changes, including population decline and aging;
- globalization processes in the economy and the need for innovative economic development;
- changes in the labour market, the increasing demand for new competencies and skills;
- climate change and its impact on the environment and people;
- increasing demand in the energy sector and national energy security;
- growth of the global middle class and increase of the risks of relative poverty;
- urbanisation, agglomeration and regional positioning processes.

Member States of the United Nations and the European Union, including the Republic of Latvia, as a response to the above mentioned global changes have agreed on a model of sustainability (Ministry of Regional Development and Local Government of the Republic of Latvia, 2008). Within the sustainability model, the only way of successful response to the global challenges is recognising the policy-making in a systematic manner to balance economic, social and environmental objectives, which are schematically shown in Figure 1.

As shown in Figure 1, it is equally important to achieve balance between the main goals of the global challenges facing policy in urban areas as well



Source: made by the authors according to Latvian Sustainable Development Strategy until 2030, streamlined version of the first edition data, (2008), Riga, pp. 3-4

Figure 1. The main goals of the global challenges facing policy

as in rural areas. State sustainable development which requires social, economic and environmental considerations could be achieved only with the help of growth-oriented process over the whole territory of the state. Thus closer Latvian rural-urban cooperation in the area of improvement of the quality of life will be achieved simultaneously increasing socio-economic welfare and environmental protection. Therefore, it would be necessary to analyse historical aspects and future perspectives of Latvian rural-urban bilateral relations as well as to search potential solutions for the partnership building. Such action would square the regional differences in Latvia, give an opportunity for Latvian rural and urban areas to complement each other and raise competitive advantages of the whole country in Europe and worldwide.

The need for the following actions has been highlighted in the report by the Agriculture and Rural Development Committee of the European Parliament in 2008 "Complementarities and Coordination of Cohesion Policy with Rural Development Measures" (2008/2100(INI) – *Sustainable and balanced regional development can be successful only if the interaction between rural and urban areas, for example, as education, integration, food supply, waste management, energy supply, and environmental protection are based on a balanced representation of the interests of rural and urban areas* (Bourzai, B., 2008).

The paper emphasises the need for modelling the rural-urban partnership as an important precondition for sustainable and balanced regional development. Partnership is understood as a reciprocal cooperation in all areas of life – everyday and business activities, education, social and health care, environmental protection, etc.

The opportunities of rural-urban mutual cooperation

Both urban and rural territories occupy a special place and perform specific functions in the life of population of the country and the national economy. The analysis of the opportunities of rural-urban mutual cooperation and development of this relationship requires the understanding on the following questions: "What are the most important roles and functions of urban and rural? What is the nature of these roles and functions? In which life areas urban and rural could complement and support each other?"

City as a whole has a different perceptible formation, which is characterised by the following interrelated and mutually reinforcing functions: administrative, political, commercial, cultural, religious, industry, defence, judicial, education, and others. The function of the city is to link a populated place with the outside world, which makes it possible not only to combine these localities to existing explanations of the concept, but also allows the city to assess the interaction between close and far away existing elements of the socio-economic space. It is possible to assess the contemporary urban

socio-economic status of the modern city and to discover new trends in urban development and its importance for the national economic growth due to the emphasis on the city links with the outside world and environment.

By contrast rural is understood as an environment where positioned sectors that produce resources for processing and consumption by other industries. It is stressed in the Handbook of Rural Development that today the term "rural" in Europe is understood as follows: "*Rural, as it is understood, covers regions, natural rural landscapes, farms, forests, villages, small towns, some of the industry, and regional centres. They include small and medium-sized factories and manufacturers, sales and service companies. Preserving natural resources and wealth, the natural environment and cultural traditions, the importance of rural of recreation and leisure provision grows*" (Ministry of Agriculture of the Republic of Latvia, 1999).

The definition of the term "rural" reflects the depth and diversity of the content. The current potential of the rural is emphasised in the areas of entrepreneurship, marketing and service development, small and medium-sized industrial production growth. At the same time attention is paid to the rural as the environment for leisure, cultural and historical discovery.

According to Kazimirs Špoģis, a professor of Latvia University of Agriculture the presence of active national economy sectors as cropping, forestry, and aquatic farms plays the most important and unique role and function of the rural in the national economy and rural place in the society. These are the only sectors that produce or manufacture new and biologically renewal resources with storage and collection of the solar energy. All other sectors only process agricultural, forest and water accumulated output of the solar energy or generate new resources as well as its own solar energy, fossil fuel resources, and the conversion (transformation) in different stages – ore, oil, peat, gas, and coal (Špoģis, K., 2002).

It is necessary to note also other important roles and functions of the rural areas:

- rural is the place where the national resources are required for functioning of the economy and raw material extraction and production. However, the output of production resources and raw materials are processed and consumed in urban areas;
- rural areas are the place for production of food and raw materials. The produced food stuff and their raw materials are transported to the cities within the country and exported abroad;
- rural areas are the reservoir for tourism and recreational resources, formed by natural wealth of lakes, rivers, grasslands, protected natural areas etc. Urban residents are the main users and consumers of tourism and recreation resources;
- rural areas as a living space have got more widespread interest among a metropolitan population during the past years – increasing



Source: made by the authors according to the Analysis of the Interaction between Latvian Urban and Rural Areas data, (2009), Riga, p. 351

Figure 2. The main forms of the rural-urban interaction

level of public life heightens in the life outside the city, and more and more city inhabitants build or buy houses in the countryside.

The analysis of the above mentioned rural – urban key roles and functions obviously depicts their interaction, which is schematically depicted in Figure 2.

As shown in Figure 2, the rural-urban interaction takes place, thanks to the constantly ongoing demographic, socio-economic, information awareness-raising co-operation processes, and flows from rural to urban, though even in the opposite direction. Population migration has a dual nature – a short term and a long term. The short-term migration should be understood as daily, weekly, and seasonal labour migration and services migration of varying intensity, like the seasonal migration connected with other living space, tourism, recreation and one day rest out of the place of residence without staying in another place. Goods, services and energy flows can take place inside one company as well as becoming the country's foreign trade components.

Financial transfers are secured by trade, tax, earmarked grants, and the value of state transfers. The communication between the urban and rural administrative bodies; governmental and non-governmental organisations; and enterprises and population have been built and maintained within information flows. Science and technology flows between rural and urban areas depend on the innovative support of the local and state level. Education and cultural links between urban and rural areas through education and training are created and ensured by kindergartens, schools, libraries, museums, and theatres.

Links between the modelling of the rural-urban partnership and the concept of sustainable development

Latvian Sustainable Development Strategy until 2030 streamlined version of the first edition emphasises that the main goal of Latvian Sustainable Development Strategy is to increase the productivity

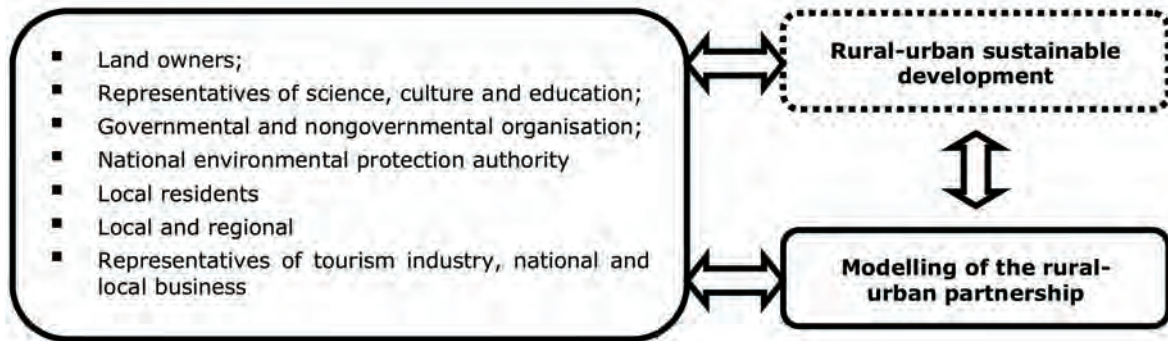
of human, economic, social, and natural capitals, including the location and facilities, in response to the challenges of the global trends (Ministry of Regional Development and Local Government of the Republic of Latvia, 2008).

The achievement of these goals depends on human resources and their work; in turn the efficiency of the use of resources is subject to both – urban and rural population. Latvia should focus on the harmonisation of differences between urban and rural areas as well as regions to enable both – urban and rural population to engage equally in a given process. The main problems hindering rural-urban partnership are as follows:

- uneven spatial development and national and regional distance obstacles;
- disparities in the quality of life in urban and rural areas;
- guarantee and availability of public services (health care, education etc.);
- poorly developed infrastructure between urban and rural areas;
- lacking fast and reliable inter-linkages between different levels of development centres in the country;
- failures of the functional link between rural and urban;
- degradation and inappropriate management of the habitat environment etc.

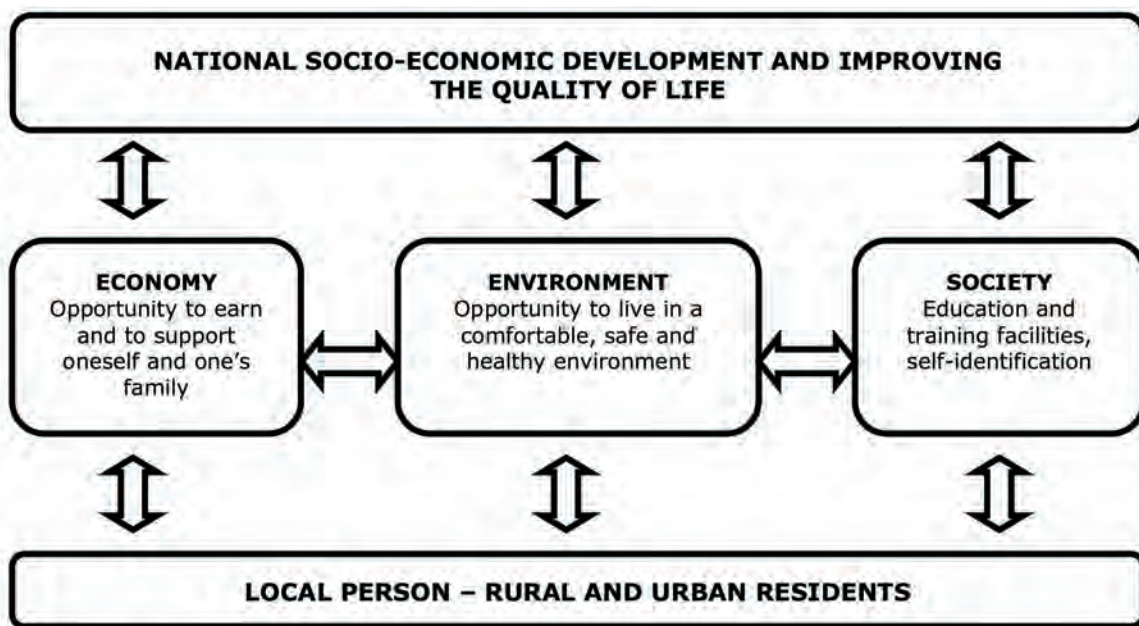
In accordance with the nature, depth and scale of the problems mentioned above, it is important to note that the resolution shall be associated with several interest groups schematically shown in Figure 3.

As shown in Figure 3 the modelling of the rural-urban partnership as a complex science is in the centre of the rural-urban sustainable development. There are many different factors and interests in this mutual cooperation. It is necessary to note that the situation in each case is individual. It is possible to define many interest groups that directly or indirectly are involved in the relationship between urban and rural areas and participate in the solving of the above mentioned relationship problems. Besides it is important to take into account that



Source: made by the authors according to the Protection and Development of the Cultural and Natural Heritage data, (2004), Riga, p.13

Figure 3. Groups of interest of rural-urban partnership building



Source: made by the authors according to Riga 2006-2009: City and Architecture data. (2009), Riga, pp. 12-13

Figure 4. The role of local residents in the development of rural-urban partnership

the relation between different interest groups and its impact on the modelling of the rural-urban partnership is quite different.

The sustainability model mentioned above requires integrated solutions of economic, social, and environmental problems. Therefore, vertical and horizontal cooperation instruments and mechanism between the urban and rural areas become particularly important. Horizontal cooperation between institutions in different spheres of public organisations could enable new ways how to combine available resources for the urban and rural areas and to solve problems that cut across influence boundaries of each interest group of modelling of the rural-urban partnership building. By contrast, vertical cooperation between the national institutions, local governments and communities could enable all interest groups, involved in the modelling of the

rural-urban partnership building, to participate in the decision making and searching for optimal solutions.

Overall, promotion of the rural-urban partnership in the context of sustainable development should be seen as multifunctional, diverse, balanced, and sustainable process, which involves the employment diversification and technological upgrading, respecting local traditions and regional differences in mentality, and which is oriented towards the opportunities of personal development, rural and urban community orientation, and motivation for education and training.

Rural-urban partnership building should be based on the following principles:

- a balanced rural-urban development and increase of the quality of life;
- maintenance and promotion of the rural-urban development potential;

- improvement and development of the guarantee and availability of public services.

It is important to remember that a local person, rural and urban residents, is in the intersection of rural-urban relations as it is emphasised in the book published by the Department of City Development, Riga City Council *“Riga 2006-2009: City and Architecture”* in 2009 for planning of the urban-rural partnership development in the near and distant future (Department of the City Development, Riga City Council, 2009). The human – his or her knowledge, wisdom, experience, skills, and desire to care it and actively use – is the largest national treasure. Both urban and rural residents, and their investment and contribution in culture, science, art, national welfare, and environmental protection improve the living conditions of the society and the country’s socio-economic development as a whole, as schematically shown in Figure 4.

As shown in Figure 4, local residents play a significant role in the creation and development of rural-urban partnership as well as in the national socio-economic development and improving the quality of life. Dynamic and complex nature of the state – local residents and rural-urban partnership development is obvious. It reflects in both – vertical and horizontal relationship between the elements of interaction, which is oriented towards the national socio-economic development and improving the quality of life.

Improving the quality of human life is one of the country’s growth objectives. Latvian National Development Plan for 2007-2013 defines the concept “quality of life” as follows: *“Quality of life is a complex social, economic and political concept which encompasses a broad spectrum of living conditions of the country’s inhabitants. It is characterised by the consumer goods available to an individual, the range and quality of social services, opportunities for getting an education and living a long and healthy life; participating in the country’s political life as well as by eliminating any kind of discrimination based on gender, ethnic origin, race, religion, physical disability, sexual orientation and age, thereby enabling an individual to implement his/her potential while helping to create society’s welfare. Thus, it can be said that the quality of life is determined by the country’s natural, economic, social and political environment, which can be characterised by various indicators.”* (Ministry of Regional Development and Local Government of the Republic of Latvia, 2006).

The above mentioned definition inevitably shows that the country’s socio-economic development and improvement of competitiveness is based on the following prerequisites:

- human health – the quality and availability of health care services in urban and rural areas;
- human education – the quality and availability of general primary, secondary, tertiary and vocational educational opportunities for lifelong access in urban and rural areas;
- human material well-being directly affected by the stable work and sufficient salary – availability

of job opportunities in urban and rural areas for each community member according to the obtained education, job skills and experience;

- availability of attractive, safe and ecologically friendly environment and infrastructure for the human life, economic activities and recreation in urban and rural areas.

Consequently, the analysis on factors and conditions influencing the rural-urban partnership development shows that the place where person lives, either is it urban or rural, and a way of life of each resident of the state forms are the foundation of the physical and social well-being. It is also a question about home and school, work and leisure opportunities, which should be based on the smooth socio-economic development that would create equal opportunities for both rural and urban populations. This inevitably suggests that rural-urban partnership shall be mutually complementary, giving people more attractive and high quality of life, education, economic activities, and recreational opportunities. Rural-urban relations in the state shall be designed as a mutual partnership. It means that it is possible to improve the quality of life, prosperity and competitiveness of the national economy on the basis of a successful cooperation of territorial differences, the uniqueness of the landscape, natural sites and value of the place.

At the end of the article on the perspectives of the modelling of Latvian rural-urban partnership in the context of sustainable development it could be interesting to quote Dace Goģe, a pupil of Form 12, Daugavpils Secondary school No. 12: *“I am looking in the broad eyes of Nature ... I am there between the heaven and the earth, between the question and the answer. I am between the rural and the urban. If we do not know one of them, could we understand the other’s meaning? It must be between...”*

Conclusions, proposals, recommendations

1. Rural and urban relations may be compared with the ancient Eastern philosophy of the established “yin and yang” principle which postulates two opponents who are mutually complementary. The general characteristics and differences between rural and urban interaction create a complementary pair. The completeness of the unit of rural and urban relations promotes the socio-economic development of the country and the public welfare. The research aim was to analyse the perspectives of modelling Latvian rural-urban partnership in the context of sustainable development.
2. The analysis of the rural and urban development in the context of global changes shows that today both rural and urban areas are subject to global challenges such as demographic changes, economic stratification of the society, climate changes and their impact on the environment and human health, etc. Thus it is necessary to create and promote networks of closer rural-urban cooperation in the different areas of

life to solve the above mentioned problems and achieve the main goals of sustainable development concept.

3. Assessing the socio-economic aspects of the rural-urban partnership, the authors concluded that sustainable rural-urban development is an important wealth-building tool for both the state and families in short and long-term perspectives. Taking into account that residents and their intellectual and physical potential and capabilities is the largest national treasure, future rural-urban partnership building challenges will be to estimate more deeply cooperation and interaction trends and patterns in Latvia, using new methodologies and methods, and considering the lifestyle changes, health, and environmental issues.
4. The research results show that the modelling of the rural-urban partnership shall be viewed as effective tool for the society and state in the search for ways to react to such global challenges as globalisation of the economy, labour market fluctuations, biodiversity loss, urbanisation, and regional positioning. It is vitally important not only to find ways for solving the above mentioned problems, but also to develop models which would help transform the new challenges caused by the global problems to facilities for sustainable development of the state and society.
5. Promoting rural-urban partnership, Latvia shall focus on the relationship between individual regions of the country as well as to support measures for closer cooperation with neighbouring countries, for example, the Baltic Sea States and other European Union member states. It would allow accessing the world experience in the area of balanced rural-urban development and integrating the best practices in Latvia.
6. The great importance of the rural-urban partnership relations in the context of sustainable development lies in scientifically sound and efficient urban and rural socio-forming spatial and

social structure of the procedural management, which must be oriented towards the optimisation function. Urban and rural systems and functions shall be developed to facilitate their availability to all citizens regardless of their place of residence, gender, age, disability, and other aspects.

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Mikrokredīta kustība kā viens no partnerības variantiem Microcredit Movement as One of the Partnership Patterns

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Abstract. The development of partner-relations has become an important and promotional factor for development, leading to successful use of resources and balanced management of actions, and it dates back to the end of the 20th century and the beginning of the 21st century. So far in the substantial researches in the field of partnership (Walsh J. McQuaid R.W. Wilcox D. etc.) three partnership patterns have been set out – business partnership (cooperation of enterprises), partnership for territory development (Leader + programme, etc.) and social partnership (reduction of the social exclusion). The analysis of the group microcredit movement in Latvia leads to the partnership pattern, combining segregated features from each of the mentioned variations – encourages economic activity, social inclusion and wherewith the territory development. The research analyses the group microcredit movement as one of the partnership variations in Latvia.

Key words: microcredit movement, networking, partnership.

Īevads

Latvijas lauku nākotne ir cieši saistīta ar uzņēmējdarbības attīstību, tai skaitā arī ar sieviešu uzņēmējdarbības attīstību. Lauku teritorijās ekonomiska aktivitāte pagaidām vēl ir ierobežota, ko atspoguļo virkne statistikas datu.. Pēdējie veiktie apsekojumi par lauku saimniecībām uzrāda, ka tajās nodarbināto skaits, kuri pastāvīgi strādā pilnu darba dienu 2007. gadā bija tikai 14,0 % no nodarbināto kopskaita (2005.gadā attiecīgi – 18,6 %). Pārējie strādāja nepilnu darba dienu. No visiem nepilnu darba dienu strādājošajiem 43,7% jeb 98,0 tūkstoši bija sievietes. (LR CSP. Lauku saimniecību struktūra Latvijā 2007.gada jūnijā. Rīga, 2008, 64.lpp)

Sevišķi pozitīvi nav vērtējamas arī uzņēmējdarbībā iesaistīto cilvēku skaita izmaiņas. Ja vīriešu skaits, kas kļuvuši par darba devējiem, ir palielinājies, tad sieviešu-uzņēmēju skaits kopš iestāšanās ES ir sarucis gan absolūtos skaitļos (2004. gadā 12,1 tūkstoši – 2008. gadā 9,5 tūkstoši), gan arī procentuāli (no 35% 2004. gadā līdz 26% 2008. gadā no visiem uzņēmējiem. (LR CSP. Darbaspēka apsekojuma galvenie rādītāji 2004.gadā. Datu krājums. R, 2005, 25.lpp.; LR CSP. Darbaspēka apsekojuma galvenie rādītāji 2008. gadā. Datu krājums. R., 2009, 27. lpp.)

Mazliet labāka ir situācija ar pašnodarbināto personu skaita izmaiņām, lai gan arī šajā nodarbināto statusā sievietes ir mazākumā, tomēr viņu skaits un īpatsvars salīdzinot ar uzņēmējdarbību ir ievērojami lielāks, bet sieviešu iesaistīšanās temps – lēnāks. Tā 2008. gadā 40,1 tūkstotīs sieviešu bija pašnodarbināto statusā, kas bija vien 35,5% no visiem pašnodarbinātajiem. Ja laika posmā no 2004. gada vīriešu-pašnodarbināto skaits bija palielinājies 2,1 reizi, tad sieviešu – tikai 1,5 reizes. (LR CSP. Darbaspēka apsekojuma galvenie

rādītāji 2004 gadā. Datu krājums. R, 2005, 25.lpp.; LR CSP. Darbaspēka apsekojuma galvenie rādītāji 2008. gadā. Datu krājums. R., 2009, 27. lpp.)

Par vienu no metodēm sieviešu ekonomiskās aktivitātes kāpināšanai Latvijā ir izmantota mikrokreditēšanas forma, kas uzņēmējdarbības uzsākšanā un nodarbinātības (pašnodarbinātības) veicināšanā balstās uz tādiem Latvijā sevi apliecinošiem atbalsta instrumentiem un kompleksajiem atbalsta pasākumiem, kā mikrokreditu piešķiršanas sasaiste ar t.s. sociālās garantijas mehānismu izmantošanu (kredīta piešķiršana parasti 3-5 personu grupai, kuras viens loceklis rotācijas kārtībā to izmanto uzņēmējdarbības uzsākšanai, savukārt, pārējie grupas locekļi uzņemas saistības kā galvotāji un īsteno atbalsta aktivitātes), kas savukārt ir cieši saistītas ar NVO aktivitātēm. Latvijā šāda veida mikrokreditēšanas komplekso programmu pēc Muhameds Junusa 1983.gadā Bangladešā izveidotās Grameen bankas principa un parauga veiksmīgi tiek īstenota kopš 1998.gada, kad apjomīga Ziemeļvalstu – Baltijas valstu pārrobežu projekta ietvaros Latvijas Lauksaimniecības universitāte (LLU) un Latvijas Lauku sieviešu apvienība (LLSA) Latvijā organizēja pirmās mikrokreditu grupas. Savukārt, aktivitāšu turpinājumā izšķirošā loma bija LLSA izveidotajam Latvijas Lauku sieviešu uzņēmējdarbības atbalsta fondam (LLSUAF), kas organizē mikrokreditu piešķiršanu izmantojot savus resursus, kā arī nodrošinot Latvijas Hipotēku un zemes bankas (LHZB) līdzekļu izlietojumu (speciālas programmas ietvaros). Rezultātā no atsevišķiem indivīdiem un institūcijām veidojās mikrokredīta kustība.

2008. gadā Latvijā atzīmēja mikrokredīta kustības 10 gadu jubileju.. Šobrīd Latvijā ir jau 150 mikrokredīta grupas, kas darbojas visos

Latvijas reģionos un izvērš uzņēmējdarbību. Biežāk sastopamie uzņēmējdarbības veidi ir lauku tūrisms, truškopība, dārzu audzēšana, veterinārārstu pakalpojumi, atpūtas pasākumu organizēšana, daiļdārzniecība, zāļu tēju iegūšana, frizieru un šūšanas pakalpojumi u.c.

Pašreizējā attīstības posmā iepriekš minētās institūcijas realizē dažāda apjoma un intensitātes sadarbību, tomēr kustības tālāka attīstība izvirza nepieciešamību virzīt sadarbību partnerības virzienā.

Pētījuma mērķis ir: izpētīt partnerības iezīmes mikrokredīta kustībā. Mērķim pakārtoti sekojoši **uzdevumi:**

- izpētīt partnerības kā parādības variantus;
- raksturot mikrokredīta kustību Latvijā kā sistēmu;
- noskaidrot ekspertu vērtējumu par tīklošanu mikrokredīta kustībā Latvijā;
- mikrokredīta kustībā iesaistīto indivīdu un institūciju ieinteresētību šīs kustības attīstībā;
- noteikt mikrokredīta kustības piederību kādam no partnerības variantiem.

Pētījumā izmantotas vispārzinātniskas un socioloģiskas **pētniecības metodes:** salīdzinošā analīze un sintēzes metode, ekspertu intervijas.

Par **informācijas bāzi** izmantoti mikrokreditēšanas normatīvie dokumenti, Centrālās Statistikas pārvaldes dati, ekspertu interviju rezultāti.

Rezultāti un diskusija

1. Partnerības būtība un varianti

Lai gan dažādās publikācijās partnerība tiek definēta ar zināmām niansēm, tās pamatbūtība ietveras katrā no šīm definīcijām. (Rosenbaum D. P.; Linder S.H.; Wilcox D.; McQuaid R.W.) Autoru skatījumā viskoncentrētāk daudzo definīciju kopsavilkums ir dots Davida Vilcoka sagatavotajā „Efektīvas partnerības rokasgrāmata”, ka partnerība ir divu vai vairāku partneru vienošanās par sadarbību kopēja mērķa sasniegšanai (Wilcox D.), tādēļ šo partnerības kā parādības izpratni autori ir pieņēmuši par pētījuma izejas pozīciju.

Tā kā pētījuma mērķis ir analizēt mikrokredīta kustību kā vienu no partnerības variantiem, tad galveno uzmanību autori, protams, ir veltījuši zinātniskajā literatūrā sastopamo variantu izdalīšanai un analīzei.

Pirmkārt, partnerība ir plaši apskatīta biznesa sfērā. Šim variantam ir arī savas versijas: a/ biznesa struktūru savstarpējā partnerība – vispārējā, akciju sabiedrība un akciju sabiedrība ar ierobežotu atbildību (Crosarey H.); b/ partnerība menedžeru un struktūrās nodarbināto attiecībās (Teague P.); c/ biznesa struktūru partneru piederība publiskajam vai bezpeļņas sektoram (Kolk A. and others). Šo partnerības variantu var uzskatīt par sabiedrībā pazīstamāko. Jebkurā no šiem gadījumiem par partnerības ieguvumiem min uzņēmumu lielāku konkurētspēju, augstākus ienākumus, pastāvēšanas drošību un kapitālieguldījumu saņemšanu. (Business partnering)

Otrkārt, pietiekoši plaši tiek analizēta partnerība, kas vērsta uz teritorijas (pilsēta, lauki, reģions) attīstību. Visbiežāk šo partnerības variantu saista ar lauku kā teritorijas/telpas attīstību (Leader programmas). Šajā partnerībā parasti apvienojas divu vai trīs sociālo sektoru – valsts un publiskā, privātā un pilsoņu apvienību – institūcijas, kuru sadarbības mērķis ir lauku teritoriju attīstības veicināšana. (Moseley J., Bredens D.) Šī varianta forma parasti ir VIG (vietējās iniciatīvas grupas), kuru uzdevums ir veicināt lauku atdzimšanu visplašākajā nozīmē, sākot ar dabas vides ilgtspējas veidošanu un beidzot ar attiecīgajā teritorijā dzīvojošo cilvēku kopības noskaņojuma nostiprināšanu. (Wilcox D.)

Kā trešo partnerības variantu izdala sociālo partnerību jeb partnerību sabiedrības sociālajā sfērā. Tās būtība izteikti iezīmēta ANO 2004. gada Riodežaneiro konferences materiālos, norādot, ka sociālo partnerību veido grupas un indivīdi, kuri darbojas kā sociālās politikas paplašināšanas un uzlabošanas katalizatori. (Walsh C.J.) Šo skatījumu pilnībā pieņem arī Eiropas Savienības struktūras. (Social partnership Quideline Principles...) Partnerības mērķis sociālajā sfērā vispirms tiek virzīts uz sociāli atstumto cilvēku ekonomisku un sociālu reintegrāciju sabiedrībā veicinot viņu izglītošanu, apmācību un nodarbinātības iespējas. (Doyle M.)

2. Mikrokredīta kustības sistēma Latvijā

Mikrokredīta kustības sistēmu pašreizējā situācijā veido četri bloki: 1. bloks – pašas mikrokredīta grupas, kas izkaisītas pa visu valsts teritoriju; 2. bloks – institūcijas, kas veidojušās kā mikrokredīta grupu dalībnieču praktiskas darbības tieša atbalsta struktūras – kooperatīvs „Akorande” un LLSUAF, 3. bloks – institūcijas, kuru uzdevums galvenokārt ir ārēja atbalsta funkcijas – vispārēja organizēšana (LLSA), idejas izplatīšana un zināšanu pārnese (LLU) un, beidzot, 4. bloks – institūcija – Latvijas Hipotēku un zemes banka (LHZB), kura ieņem 2. un 3. bloka starppozīciju, izdalot finansējumu, bet sadarbībā ar LLSUAF.

Esošajā mikrokredīta kustības sistēmā iezīmējas divas tīklošanas (networking) līnijas. Pirmo līniju varētu klasificēt kā **vertikālu tīklošanu**. Tai varētu piešķirt:

- mikrokredīta grupu un LLSA vadības sadarbību – pēdējā ieinteresē vietējo biedrību dalībnieces iesaistīties mikrokredīta kustībā, organizē īpašas vasaras skolas dažādu grupu dalībniecēm aktuālu jautājumu apspriešanai;
- mikrokredīta grupu un LLU mācību spēku sadarbību, pēdējiem veicot zināšanu nodošanu un praktiskās pieredzes analīzi;
- mikrokredīta grupu un vietējo pašvaldību sadarbību, pirmajām gūstot vismaz morālu atbalstu no pašvaldību puses, bet otrām – izmantot grupu pieredzi ekonomiskas aktivitātes kāpināšanai pārvaldītajā teritorijā;
- mikrokredīta grupu un LHZB sadarbību LLSUAF funkcionējot kā starpposmam, kas komplektē grupas un kārto kredīta saņemšanai nepieciešamo dokumentāciju.

Otra nozīmīga tīklošanas līnija var tikt dēvēta par **horizontālu tīklošanu**. Šai aspektā mikrokredīta kustības sistēmā izdalāmi divi varianti:

- tīklošana vienas mikrokredīta grupas ietvaros un
- mikrokredīta grupu savstarpēja tīklošana.

Rezultātā mikrokredīta sistēmā pastāv visai sarežģīta tīklošanas sistēma, kurai nepieciešams novērtējums.

3. Ekspertvērtējums par tīklošanu mikrokredīta kustības ietvaros

Pielietojot ekspertvērtējuma metodi autori vēlējās noskaidrot attiecību ciešumu sistēmas ietvaros izveidojušos tīklošanas variantos, lai konstatētu partnerības veidošanas iespējamus primāros virzienus un formas. Izmantojot konjunktūras saldo metodi, izveidojās attiecību ciešuma novērtējums, kāds dots 1.tabulā.

No visām institūcijām, kas tā vai citādi saistītas ar mikrokredīta kustību, visaugstāko novērtējumu eksperti deva gan LLU, gan arī LLSA. LLU tiek nosaukta par idejas pamatlicēju un kustības iniciatoru. Ekspertes uzskaita universitātes ieguldījumu, kas spilgti parāda akadēmiskas institūcijas lomu zināšanu pārneses procesos un pasvitro arī universitātes līdzdalības praktisko pusi.

A - *"LLU bija idejas pamatlicēja un ļoti daudz ir darījusi mikrokredīta popularizēšanā, lauku sieviešu izglītošanā, kontaktu dibināšanā, publikāciju izdošanā pētījumu veikšanā."*

C - *"LLU bija iniciators šai kustībai, kā rezultātā tika attīstīta uzņēmējdarbība un radītas darba vietas."*

Savukārt, LLSA augsto novērtējumu saņem kā mikrokredīta grupu veidošanas bāze, jo grupas rodas no vietējo lauku sieviešu organizāciju dalībniecēm, kuras jau ilgāku laiku ir savstarpēji pazīstamas un tādēļ gatavas savstarpējai uzticībai un sadarbībai vienas grupas ietvaros.

C - *"Pateicoties LLSA vispār tika izveidotas grupas"*.

A - *"Sākot ar INTERREG III B FEM projektu LLSA ir uzņēmusies mikrokredīta kustības pārvaldību Latvijā"*.

Ciešu sadarbības līmeni ekspertes saredz arī pašās mikrokredīta grupās. Tā kā vairākumā gadījumu grupu dalībnieces dzīvo vienā administratīvi teritoriālā vienībā, darbojas vienā un tai pašā vietējā lauku sieviešu biedrībā, tad šāds vērtējums ir saprotams.

C - *"Dzīvojam vienā pagastā, esam līdzīgi domājošas ar līdzīgām interesēm"*.

Zemgalē, kas vēl līdz šodienai ir mikrokredīta kustības galvenā bāze, mikrokredīta grupas dalībnieču sadarbība sevišķi izvēršusies.

A - *"Sadarbība ir ne tikai biznesā, bet arī draudzībā starp ģimenēm, kopā darbošanās klubos, piedalīšanās pašdarbības kolektīvos utt. Notiek kooperācija preces realizācijā."*

Grupās dalībnieces jūt atbildību viena par otru, it sevišķi, ja ir paņemts kredīts."

Institūciju, kas lielā mērā ir saistītas ar mikrokredīta kustības ekonomisko pusi – LLSUAF

un LHZB, iekļaušanos kopējā tīklā ekspertes vērtē kā viduvēju. LLSUAF pagaidām vairāk veic oficiālas funkcijas, kas saistītas ar finansu plūsmu pārziņot paša fonda līdzekļu izmantošanu un reizē arī uzraugot LHZB izsniegto kredītu apsaimniekošanu. Augstu vērtējumu gūst fonda vadītāja, kas pēdējo piecu gadu laikā izaugusi no vienkāršas lauku mājsaimnieces par mikrokredīta kustības faktisko organizētāju un vadītāju.

B - *"Fonda vadītājas darbs ir unikāls"*.

A - *"Palīdz e-komercijā. Atgādina par maksāšanas termiņiem LHZB un LLSUA fondā. Konsultē biznesa plāna izstrādē. Palīdz sagatavot dokumentus iesniegšanai LHZB. Uztur mikrokredīta grupu datu bāzi. Tādejādi tiek uzturēts kontakts ar mikrokredīta grupām."*

LHZB ekspertes vērtē kā nozīmīgu mikrokredīta kustības dalībnieku, kā finansēšanas avotu. Ja LLSUAF pārziņa ir 10.000 Ls fonda naudas, tad ar LHZB atbalstu mikrokredīta kustība 2008. gadā saņēma 50.000 Ls kredītiem. Tā tad viena gada laikā lauku sieviešu biznesa ideju finansēšanas iespējas pieauga piecas reizes. No 2009. gada 16. februāra LHZB ir atvērusi vēl vienu līdzekļu iegūšanas kanālu – t.s. 3000 Ls mikrokredīta programmu.

Zemu vērtējumu mikrokredīta kustībā ekspertes deva mikrokredīta grupu savstarpējai sadarbībai. Tai vairāk raksturo vietēja mēroga kontakti.

C - *"Rajona mērogā mēs kontaktējamies ļoti bieži, bet ar citu rajonu grupām, kad nepieciešams"*.

A - *"Grupās vairāk ir savstarpēji pazīstamas pa rajoniem un reģioniem. Valsts mērogā mazāk"*.

Visai kritisku novērtējumu mikrokredīta grupu savstarpējiem kontaktiem izsaka eksperte B.

B - *"Šīs attiecības nav koptas. Katras attiecības ir jāveido."*

Tomēr kopumā viszemāko novērtējumu saņem vietējo pašvaldību un mikrokredīta grupu sadarbība. No ekspertu intervijām izriet, ka „vaina” ir meklējama abās pusēs. Vietējām pašvaldībām ir jāveic daudzas un dažādas funkcijas un tādēļ tās vai nu nepazīna visu pārvaldāmajā teritorijā notiekošo, vai arī tādām kā sieviešu mazās uzņēmējdarbības aktivitātēm nepievērš uzmanību, jo koncentrējas uz globālākām lietām, vai beidzot vienkārši nesaprot, kas īsti ir mikrokredīta kustības būtība.

B - *"Viennozīmīgi viss ir atkarīgs no pašvaldību vadītāja. Ļoti nosaka cilvēks"*.

A - *"Ir maz pašvaldību, kuras izprot mikrokredīta būtību"*.

Tāpat, lielāku iniciatīvu būtu jāizrāda pašām mikrokredīta grupām iepazīstinot vietējo pašvaldību ar savas darbības mērķiem un sasniegtajiem rezultātiem.

A - *"Tur, kur uzņēmējas informē pašvaldību par savām mikrokredīta aktivitātēm, vai tiek rīkots seminārs par mikrokredītu, tur veidojas sadarbība."*

Pēc ekspertu vērtējuma uzskatāmi izdalās mikrokredīta kustības visvājākas saites. Tās ir:

1. mikrokredīta grupu savstarpējā sadarbība kustības ietvaros;
2. mikrokredīta grupu un vietējo pašvaldību attiecības, kas sevišķi neskaidras pēc jauno administratīvi teritoriālo vienību – novadu izveidošanas.

1. tabula

Attiecību ciešuma novērtējums mikrokredīta kustībā
Evaluation of firmness of relations in the microcredit movement

Nr.	Attiecību variants	Konjunktūras saldo
1.	Vienas mikrokredīta grupas dalībnieces savstarpēji	+ 2,5
2.	Mikrokredīta grupas savstarpēji	+ 0,5
3.	LLSA ar mikrokredīta kustību kopumā	+ 3,0
4.	LLU ar mikrokredīta kustību kopumā	+ 3,0
5.	LHZB ar mikrokredīta kustību kopumā	+ 1,5
6.	LLSUAF ar mikrokredīta kustību kopumā	+ 2,0
7.	Vietējās pašvaldības un mikrokredīta grupas	0,0

Avots: Autoru aprēķini uz strukturēto interviju materiālu bāzes.

2. tabula

Indivīdi, institūcijas kā ieinteresētās puses (stakeholders) mikrokredīta kustībā
Individuals and institutions as the stakeholders in the microcredit movement

Indivīdi, institūcijas	Interesešu virzība, līdzdalības mērķis
Individuāla dalībniece mikrokredīta grupā	Saņemt mikrokredītu, uzsākt uzņēmējdarbību vismaz individuālā darba līmenī
Mikrokredīta grupa - 3-5 dalībnieces vienā grupā	Veidot psiholoģiska un morāla atbalsta sistēmu grupas dalībniecei, kura gatavojas ņemt kredītu un uzsākt uzņēmējdarbību
Mikrokredīta grupu kopums Latvijā	Rosināt biznesa ideju, zināšanu, prasmju un pieredzes apmaiņu, kāpināt mikrokredīta kustībā iesaistīto lauku sieviešu kopības izjūtu.
Latvijas Lauksaimniecības Universitāte	Izplatīt grupu mikrokreditēšanas ideju lauku sieviešu vidū, izglītēt viņas uzņēmējdarbības un grupu darba jautājumos
Latvijas Lauku Sieviešu Apvienība	Mobilizēt apvienības vietējo organizāciju biedres iesaistīties uzņēmējdarbības apmācībā, veidot mikrokredīta grupas un iesaistīties uzņēmējdarbībā
Latvijas Lauku Sieviešu Uzņēmējdarbības Atbalsta fonds	Palīdzēt ieinteresētajām personām sagatavot kredīta saņemšanai nepieciešamo dokumentāciju, uzraudzīt naudas plūsmas mikrokredīta kustības ietvaros un uzturēt kontaktus ar HZB
Kooperatīvs „Akorande”	Veicināt uzņēmējdarbību uzsākušo lauku sieviešu iesaistīšanos marketinga procesos ar līdzdalību dažādās izstādēs un kā lokāla tā arī reģionāla vai nacionāla mēroga gadatirgos
Hipotēku un Zemes banka	Atbalstīt finansiāli mazās uzņēmējdarbības attīstību laukos, tai pat laikā gūstot salīdzinot ar citiem kreditēšanas variantiem nelielu peļņu.
Pašvaldības	Aktivizēt uzņēmējdarbību pārvaldāmajā teritorijā, kas rada pašvaldības budžeta pieaugumu un samazina sociālās palīdzības sniegšanas nepieciešamību.

Publicējumos tīklošanu uzrāda kā vienu no pirmajām partnerības veidošanās pakāpēm (Sole D., Murdoch J.), tādēļ ekspertu doto attiecību ciešuma novērtējumu var pieņemt par partnerības veidošanās pazīmi mikrokredīta kustībā. Tomēr attiecību ciešumam mikrokredīta kustības sistēmas bloku starpā, kā liecina iepriekš minētais ekspertu vērtējums, ir dažāda pakāpe, kas, savukārt, liecina,

ka partnerības iezīmes tīklošanas kanālos nav viennozīmīgas. Pēc ierobežojumu teorijas (Theory of Constraints) svarīgi ir konstatēt jebkuras sistēmas vājākos posmus, kas kavē mērķu sasniegšanu. (Goldratt E.M.). Mūsu analizētajā variantā tie ir – mikrokredīta kustības tālāka pilnveidošanās uz savstarpējas pieredzes apmaiņas bāzes un vietējās vides labvēlības pieaugums.

4. Tīklošanās iesaistīto ieinteresētības virzība (mērķis) mikrokredīta kustībā

Jebkura individu vai institūciju iesaistīšanās kādā organizācijā vai sistēmā ir saistīta ar interesēm vai mērķiem, kuras tās vēlas šīs iesaistīšanās rezultātā iegūt. (Freeman E.; Frooman J.; Bourne L.) Latvijā, kā liecina prakse, mikrokredīta kustības sistēmā iesaistīties interesi ir uzrādījuši gan indivīdi, gan arī institūcijas. Kā pēc intervijās iegūtās informācijas, tā arī pēc oficiāliem dokumentiem (www.llsa.lv) mikrokredīta kustībā iesaistīto individu un institūciju pamatmērķi (ieinteresētība) ir atkarīgi no pozīcijas mikrokredīta kustības sistēmā. (skat. 2. tabulu)

Interesu uzskaitījums parāda, ka mikrokredīta kustības sistēmā var izdalīt:

- 1. ekonomiskas, materiālas intereses** kā kredīta saņemšana, kredīta izsniegšana, peļņas gūšana no kredītēšanas, uzņēmējdarbība (kredīta ņēmējas un Hipotēku un Zemes banka);
- 2. sociālas, nemateriālas intereses** kā psiholoģisks un morāls atbalsts, iesaistīšana aktivitātēs, izglītošana, pieredzes apmaiņa (mikrokrasīta grupu dalībnieces, kas attiecīgajā laikā neņem kredītu, LLU mācībspēki, kas iesaistījušies mikrokredīta kustībā, LLSA, kas aicina lauku sievietes iesaistīties ekonomiskās aktivitātēs, LLSUAF, kas praktiski palīdz realizēt iesaistīšanos uzņēmējdarbībā, kooperatīvs „Akorande”, kas atbalsta virzību uz marketingu);
- 3. teritorijas attīstības intereses** kā pašvaldību darbības pamatvirziens (vietējās pašvaldības).

Tā mikrokredīta kustības interesēšu kopumā ir vērojamas trīs virzības: gan ekonomiskās, gan sociālās, gan arī ar teritorijas attīstību saistītas intereses. No tām apjoma ziņā dominējošu pozīciju ieņem sociālās, nemateriālās intereses, jo mikrokredīta kustība savā būtībā vairāk ir virzīta uz lauku sieviešu iesaistīšanu uzņēmējdarbībā, nevis jau uzsāktās uzņēmējdarbības kāpināšanu, kaut netiek noraidīts arī pēdējais variants. Tomēr visas mikrokredīta kustības ietvaros saskatāmās interešu virzības kopumā atbilst vienotam galvenajam mērķim – lauku sieviešu ienākšanai uzņēmējdarbībā, kas formulēts Mikrokredīta programmā (Rivža B)

Mikrokredīta kustība pēc savas būtības ir t.s. „mīkstā” sistēma (Checland P.B., 1989; Checland P.B., 1995) Tajā nepastāv strikta iekšējā reglamentācija izņemot uzņēmējdarbību regulējošos nosacījumus. Tā balstās uz brīvprātīgu lēmumu pieņemšanu, uz tīklošanas ciešuma izvēli un, protams, arī ieinteresētības daudzveidības pastāvēšanu dodot iespēju izpausties teritorijas, ģimenes, izglītības u.c. faktoru ietekmei.

Secinājumi

Mikrokredīta kustība var tikt pieņemta kā sistēma, jo tās elementu starpā notiek tīklošana ar mijiedarbības pazīmēm. Šo faktu apstiprina ekspertu vērtējums. Pēc savas būtības tā ir „mīkstā” sistēma ar visām šādām sistēmām piemērotām iezīmēm.

Tīklošanas pastāvēšana liecina, ka kustībai ir partnerības iezīmes, jo, kā jau iepriekš atzīmēts,

sistēmā iesaistīto dalībnieku tīklošana tiek uzskatīta par partnerības veidošanās primāro iezīmi uz kuras bāzes veidojas nākošās tās pakāpes.

Ekspertu dotais kustības dalībnieku tīklošanas pakāpes novērtējums uzrāda partnerības ierobežojumus. Mikrokredīta grupu savstarpējā sadarbība un šo grupu sadarbība ar vietējām pašvaldībām ekspertu skatījumā ir galvenie aktivitātes izvērsšanas virzieni, lai kāpinātu partnerības brieduma pakāpi.

Mikrokredīta kustības dalībnieku mērķu analīze uzrāda gan interešu virzības daudzveidību, gan arī galvenā mērķa pastāvēšanu, kas sinerģē šo daudzveidību. Tieši šī galvenā mērķa pastāvēšana, kas apvieno kustību raksturojošo interešu daudzveidību, dod iespēju izteikt viedokli, ka bez tradicionāli atzītajiem trīs partnerības variantiem var izdalīt vēl ceturto – kompleksu partnerības variantu, kas ietver un apvieno visus iepriekš pazīstamos variantus. Tam piemērs ir Latvijā funkcionējošā mikrokredīta kustības sistēma.

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Dienvidlatgales sociālekonomiskā situācija teritorijas attīstības indeksa vērtējumā

Social and Economic Situation of the Southern Latgale in the Assessment of Territory Development Index

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Abstract. During centuries Latvia has experienced historical and other important trends of events, resulting in the development of regions with marked differences. Nowadays the situation in the Southern Latgale region shows that the statistic and territory development index has one of the lowest values in the country. Social and economic situation in the Southern Latgale regions is not attractive for potential investors and business owners, thus not stimulating investment of resources. Theoretically territorial resources may enable and promote the development of region, though the existing social and economic traits display a comparatively slow pace of development. The development process should be analysed and evaluated; especially when it comes down to certain administrative areas – counties. Many academics admit that if the development process is not controlled and managed, then the segregation process begins which can become even avalanche-like. It means that the wealth creates wealth and poverty reproduces poverty.

Territory development index is a standardised indicator and it belongs to a comparison group of indicators. The index calculation is based on the indicators describing the socio-economic development of the areas. Consequently, territory development indexes and ranks provide insight into the overall comparative development of the territories both across the country on the whole, and within a particular region or a specific territory in a particular period of time, and provide a really potential development course in the future. Territory development index results for the whole Southern Latgale territory districts show only a minimum development, yet they reveal a positive territory development index growth. Therefore, in the future, it is important to establish and maintain regional development database, which could prove the necessity and use of development index, since it is mainly used for territorial and strategic planning.

Key words: territory development index and rank, Southern Latgale region, social and economic development.

Ievads

Introduction

Dažādu līmeņu un veidu teritoriju sociāli ekonomisko līmeni vislabāk un efektīvāk raksturo sintētisks jeb vispārināts rādītājs – teritorijas attīstības indekss. Ar teritorijas indeksa un ranga (attīstības vieta kopvērtējumā) palīdzību ir kompakti nosakāma jebkura valsts teritorijas noteiktu un definētu daļu esošā situācija. Tas attiecas arī uz Dienvidlatgales reģiona novadu esošās situācijas analīzi, kā arī Latvijas teritorijas mēroga kopvērtējuma sociālekonomiskās attīstības analīzi. Attīstības indeksu nosaka, veicot svarīgāko statistikas pamatrādītāju standartizāciju, līdz ar to teritorijas attīstības indeksi un rangi sniedz kopējo ieskatu teritoriju attīstībā salīdzinājumā gan visā valstī kopumā, gan noteiktā reģionā vai teritorijā konkrēta laika periodā un sniedz reāli iespējamo attīstības gaitu nākotnē.

Jāatzīmē, ka ikvienā valstī teritoriju nosaukumi tiek apzīmēti atšķirīgi, lai gan bieži to raksturojošie elementi ir vienādi, tomēr to apzīmējumi atšķiras – reģions, grāfiste, rajons, apgabals, apvidus, novads utt. Savdabību tie iegūst ar ģeogrāfisko atrašanās vietu, kura var būt vai nu izdevīga, vai neizdevīga saimnieciskajai un sociālajai darbībai un attīstībai. Līdz ar to, lai noteiktu kādas teritorijas attīstības

indeksu, būtiski ir to skatīt kopējā skatījumā un salīdzinājumā ar konkrēto teritoriju.

Lielākoties praksē teritoriju attīstības indekss tiek piemērots reģionālās attīstības valsts atbalsta programmu izstrādē, atbalsta diferencēšanai ES fondu līdzfinansēto pasākumu ietvaros, kā arī ES, valsts atbalsta un citu finanšu instrumentu ietekmes uz teritoriju attīstību un ekonomiskās efektivitātes novērtēšanā. Tāpat teritoriju attīstības indeksu var pielietot reģionālās attīstības atbalsta intensitātes noteikšanai un vietējo pašvaldību un plānošanas reģionu teritoriju attīstības salīdzināšanā, vērtēšanā, prognozēšanā un cita veida teritoriju attīstības analīzē.

Darba **pētījuma objekts** ir Dienvidlatgales reģions, **pētījuma priekšmets** – teritoriju attīstības indekss un rangs.

Ņemot vērā, ka teritoriju attīstības indekss ataino konkrētas teritorijas esošo situāciju un sniedz valsts mēroga sociālekonomisko attīstības atainojumu un ar indeksa rādītāju palīdzību, ir iespējams kvalitatīvāk izvērtēt esošo valsts teritoriju kopvērtējuma situāciju un atbilstošāk, kvalitatīvāk plānot teritoriju attīstības iespējas, tad kā **pētījuma hipotēze** esošajā darbā tiek izvirzīta – Dienvidlatgales reģiona teritorijas attīstības indekss ir viens no zemākajiem valstī, kas

rada negatīvu investoru un uzņēmēju priekšstatu par teritoriju kā potenciālo attīstības resursu ieguldīšanas vietu.

Pētījuma mērķis ir: Ar teritoriju attīstības indeksa un ranga palīdzību, novērtēt Dienvidlatgales reģiona sociālekonomisko attīstību.

Darba mērķim ir pakārtoti konkrēti **uzdevumi:**

- Izpētīt teritoriju attīstības indeksu un rangu teorētiskos aspektus un tā standartizāciju;
- Veikt Dienvidlatgales reģionu novadu teritoriju attīstības indeksa un ranga analīzi un raksturojumu;
- Salīdzināt un atspoguļot Dienvidlatgales reģiona novadu sociālekonomiskās attīstības līmeni Latvijas mērogā.

Pētījuma izstrādē izmantotas vispārpieņemtas ekonomikas zinātnes **pētījumu metodes:** monogrāfiskā, salīdzinošā analīzes un sintēzes un grafiskās attēlošanas metodes.

Pētījumā par **informācijas bāzi** tika izmantoti likumi, valdības normatīvie dokumenti, Centrālās Statistikas pārvaldes dati, speciālā teorētiskā un metodiskā literatūra un darba autora pieredze pašvaldību darbībā.

Rezultāti un diskusija

Results and discussion

1. Teritoriju attīstības indekss – teorētiskais aspekts

1. Territory development index – theoretical aspect

Teritoriju attīstības indekss ir standartizēts rādītājs un pieder pie salīdzinājumu rādītāju grupas. Tā aprēķināšanai tiek izmantoti rādītāji, kas raksturo teritorijas sociāli ekonomisko attīstību – attīstības indeksa noteikšanai veic svarīgāko statistikas pamatrādītāju standartizāciju. Standartizētos rādītājus aprēķina no sākotnējiem rādītājiem, kuri raksturo teritoriju dažādos aspektos un ir izteikti reālās vienībās (cilvēku skaits, procenti, naudas apmēri utt.) Standartizācijas rezultātā sākotnējās mērvienības zūd, tādējādi, iepriekš esošie dažādie un būtībā nesalīdzināmie rādītāji, kļūst savstarpēji salīdzināmi. Apvienojot rādītājus, tiek iegūts kopējais attīstības indekss. Ar indeksa un ranga (attīstības vieta kopvērtējumā) palīdzību ir kompakti nosakāma jebkura valsts teritorijas noteiktu un definētu daļu esošā situācija, kā arī visas valsts teritorijas mēroga kopvērtējuma sociālekonomiskā situācija un attīstība. Līdz ar to teritorijas attīstības indeksi un rangi sniedz kopējo ieskatu teritoriju attīstībā salīdzinājumā gan visā valstī kopumā, gan noteiktā reģionā vai teritorijā konkrēta laika periodā un sniedz reāli iespējamo attīstības gaitu nākotnē.

Lai noteiktu kādas teritorijas attīstības indeksu vai rangu, tie ir jāskata kopējā skatījumā un salīdzinājumā ar konkrētu teritoriju. Attīstības process ir jāanalizē un jāvērtē, it īpaši, ja runa ir par konkrētu administratīvo teritoriju – novadu, kas Latvijā ir ieviesta saistībā ar Administratīvi teritoriālo reformu. Daudzi minētās nozares akadēmiķi atzīst, ka, „ja attīstības procesus nekontrolē un nevada, notiek noslāņošanās process, kurš var kļūt pat

lavīnveidīgs. Bagātība rada bagātību. Nabadzība atražo nabadzību” (Dažādā Latvija..., 2004).

Jāpiekrīt akadēmiķim Ziedonim Ragam, ka viena no nozīmīgākajām un biežāk minētajām demokrātiskas valsts neatņemamām pazīmēm ir vietējo pašvaldību esamība. Tā kā demokrātiskā valstī pašvaldības ir viens no konstitucionālās iekārtas pamatelementiem, tad no tā, cik attīstīta valstī ir pašvaldību sistēma, lielā mērā var spriest arī par demokrātijas attīstības līmeni valstī kopumā (Rags Z., 1998). Jau Latvijas brīvvalsts laikā teritoriju attīstībai tika pievērsta nopietna uzmanība un reģionālās politikas uzdevums bija saglabāt labvēlīgus attīstības apstākļus tām teritorijām, kuras ir izvirzījušās vadošajā stāvoklī un izpētīt veidus un iespējas, un radīt tādus apstākļus tām teritorijām, kuru attīstība atpaliek. Par to savās uzstāšanās runās ir teicis Latvijas brīvvalsts laika prezidents Kārlis Ulmanis: „Nekad mans nolūks nav bijis nolīdzināt uz leju, bet gan uzlīdzināt uz augšu” (Degsme..., 1991). Pirmās metodikas teritoriju attīstības indeksu aprēķināšanai Latvijā tika izstrādātas 1996. un 1997. gadā, to veica Latvijas Statistikas institūts. Lai mūsdienās īstenotu efektīvu reģionālo politiku, vispirms ir nepieciešams noteikt tās teritorijas, kurām palīdzība un atbalsts nepieciešams visvairāk. Piemēram, 1997. gadā, nosakot īpaši atbalstāmās teritorijas, izmantoja rangu metodi. Šī metode tās lietotājiem un izmantotājiem bija vienkārši un viegli saprotama un uzskatāma. Bet tai bija daudz ievērojamas nepilnības un kļūdas tās analīzē, līdz ar to 2000. gadā tika uzlabota un ieviesta teritorijas attīstības indeksu metode: „Lai visus pētījumā ietvertos rādītājus padarītu salīdzināmus un apvienojamus vispārinātā rādītājā, saglabājot metrisku salīdzināmību, jaunajā 2000. gada metodikā tika ieteikta rādītāju standartizācija, kas deva iespēju aprēķināt teritorijas attīstības indeksus” (Dažādā Latvija..., 2004). 2000. gada metodika paredz divu teritoriju grupu – republikas pilsētas un rajoni; pilsētas un pagasti – vietā izveidot trīs viendabīgākas grupas – rajoni, pilsētas un pagasti. Ieviestā metode sniedza reālāku situācijas analīzi un rādītājus, kas attēlo objektīvāku un patiesāku situāciju Latvijā teritoriju attīstības ziņā.

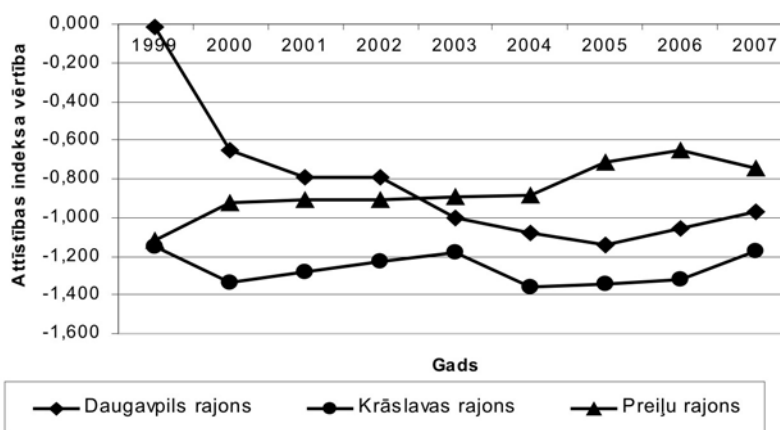
Patreiz, saskaņā ar ATR ieviešanu un pāreju uz novadu administratīvo iedalījumu ir izstrādāti un stājušies spēkā jauni noteikumi par teritorijas indeksa aprēķināšanas kārtību – MK noteikumi nr. 319 „Noteikumi par teritorijas attīstības indeksa aprēķināšanas kārtību un tā vērtībām”, šie noteikumi stājās spēkā 2009. gada 22. aprīlī. 2009. gads ir noteikts kā pārejas periods, kura laikā teritorijas attīstības indeksu aprēķina divos variantos, to nosaka „Administratīvo teritoriju un apdzīvoto vietu likums”. Teritorijas attīstības indeksa aprēķināšanas pirmais variants paredz teritorijas attīstības indeksu vērtības aprēķināt atbilstošu administratīvajam iedalījumam, kas bija spēkā 2009. gada 31. janvārī (Attīstības indekss..., 2009). MK noteikumi nr. 319 paredz, ka aprēķinātās teritorijas attīstības indeksa vērtības ir spēkā līdz 2009. gada 30. jūnijam, un tās ik gadu turpmāk netiek aktualizētas. Otrais variants paredz teritorijas attīstības indeksu vērtības aprēķināt atbilstoši administratīvajam iedalījumam, kas

noteikts Administratīvo teritoriju un apdzīvoto vietu likumā un sāka funkcionēt no 2009. gada 1. jūlija. Iepriekšminētajos MK noteikumos ir noteikts, ka teritoriju attīstības indeksa vērtības tiks aprēķinātas 109 novadiem kā vienotai grupai un atsevišķi 9 republikas pilsētām, tās tiks aktualizētas ik gadu.

Teritoriju attīstības indeksa sintezēšanai zinātnieki un praktiķi iesaka izmantot šādus pamatrādītājus:

- *Bezdarba līmenis*, rēķinot bezdarbniekus procentos no darbaspējīgo skaita. Bezdarbs nepārprotami ir viena no lielākajām sociālajām problēmām valstī. Diemžēl bieži vien ir grūti noteikt reālo bezdarbnieku skaitu kaut vai novadā, jo pastāv neregistrētie bezdarbnieki un slēptais bezdarbs.
- *Iedzīvotāju ienākuma nodokļa lielums*, rēķinot vidēji uz vienu iedzīvotāju, netieši raksturo iedzīvotāju ienākumus.

- *Nefinansu investīcijas*, rēķinot vidēji uz vienu iedzīvotāju gadā, ir viens no ekonomiskās aktivitātes rādītājiem. Tajās „...ir ietverti ilgtermiņa nemateriālie ieguldījumi, dzīvojamās ēkas, citas būves un celtnes, ilggadīgie stādījumi, tehnoloģiskās mašīnas un iekārtas, pārējie pamatlīdzekļi un inventārs, kā arī pamatlīdzekļu izveidošana un nepabeigto būvobjektu un kapitālā remonta izmaksas” (Latvijas Statistika..., 2003). Nefinansu investīcijas tiek rēķinātas tikai rajona mērogos, dati par pagastiem vai novadiem nav pieejami.
- *Demogrāfiskā slodze* ir „...rādītājs, kas raksturo bērnu un pensijas vecuma iedzīvotāju attiecību pret darbaspējīgajiem iedzīvotājiem” (Latvijas Statistika..., 2002).
- *Ekonomiski aktīvo uzņēmumu un uzņēmējdarbības skaits* uz 1000 iedzīvotājiem raksturo mazās uzņēmējdarbības aktivitāti. Par



Avots: Autors izveidots grafiks pēc 1999.-2007. gadu statistikas datiem. 1999.g. līdz 2002.g. (Dažādā Latvija..., 2004), 2003.g. līdz 2005.g. (Reģionu attīstība..., 2007), 2006.g. (LR MK Noteikumi Nr. 370, 2008), 2007.g. (LR MK Noteikumi Nr. 319, 2009).

1. att. **Dienvidlatgales reģiona rajonu teritorijas attīstības indekss (1999.g.-2007.g.)**
 Figure 1. **Territory development index of the Southern Latgale region (1999-2007)**

1. tabula
 Table 1

Dienvidlatgales reģiona rajonu teritorijas attīstības indekss no 1999.gada līdz 2007. gadam
Territory development index of the Southern Latgale region from 1999 to 2007

Rajons/Gads	1999	2000	2001	2002	2003	2004	2005	2006	2007	Izmaiņas +/- (2007.g.-1999.g)
Daugavpils rajons	-0.017	-0.649	-0.794	-0.794	-1.004	-1.081	-1.145	-1.060	-0.971	-0.954
Krāslavas rajons	-1.149	-1.333	-1.278	-1.227	-1.180	-1.362	-1.341	-1.321	-1.170	-0.021
Preiļu rajons	-1.117	-0.925	-0.906	-0.905	-0.894	-0.882	-0.717	-0.652	-0.744	0.373

Avots: Autors izveidota tabula pēc 1999.-2007. gadu statistikas datiem. 1999.g. līdz 2002.g. (Dažādā Latvija..., 2004), 2003.g. līdz 2005.g. (Reģionu attīstība..., 2007), 2006.g. (LR MK Noteikumi Nr. 370, 2008), 2007.g. (LR MK Noteikumi Nr. 319, 2009).

ekonomiski aktīviem tiek uzskatīti uzņēmumi un uzņēmēj sabiedrības, kas ražo produkciju vai sniedz pakalpojumus.

- *Iedzīvotāju skaits jeb blīvums* uz 1 km² ir klasisks ekonomiskās ģeogrāfijas rādītājs. Tradicionāli pastāv uzskats, ka jo lielāks iedzīvotāju blīvums, jo augstāks attīstības līmenis.
- *Teritoriju pievilcības indekss*, kuru aprēķina kā pastāvīgo iedzīvotāju skaita izmaiņas pēdējo piecu gadu laikā, rēķinot uz 100 iedzīvotājiem jeb procentos pret iedzīvotāju skaitu pēdējā gada 1. janvārī. Ir pavisam maz rajonu, novadu, pagastu, kas pēdējo desmit gadu laikā ir spējuši palielināt savu iedzīvotāju skaitu. Taču jāņem vērā arī fakts, ka iedzīvotāju skaita samazināšanās gandrīz vai visos pagastos, novados vai rajonos ir saistīta ar vispārēju iedzīvotāju skaita samazināšanos valstī. To izraisa liels mirušo skaits un mazs dzimušo skaits.

Minētie rādītāji ir arī vispiemērotākie administratīvo teritoriju attīstības vērtēšanai. Novadu un republikas pilsētu vērtēšanai daži dati sīkāk nav pieejami, piemēram, IKP vērtība uz vienu iedzīvotāju. Eksperti iesaka novadu un pilsētu attīstībai izmantot arī datus par zemju kadastrālo vērtību, pamatojot ar to, ka lauku teritorijas un to attīstību pagaidām diezgan nozīmīgi ietekmē lauksaimniecības attīstība. Taču realitāte rāda, ka zemes kadastrālās vērtības noteikšanas trūkums ir tāds, ka šī vērtība periodiski netiek atjaunota un pārvērtēta un līdz ar to zūd reālā tirgus vērtība.

Teritoriju attīstības indeksi raksturo teritoriju salīdzinošo attīstības līmeni uz citu tajā pašā grupā iekļauto teritoriju fona, bet neraksturo attīstību laikā (dinamikā). Līdz ar to šāda veida aprēķini ir derīgi noteiktu analītisku uzdevumu risināšanai, kur pietiek zināt attīstības līmeni, bet nav jāņem vērā attīstības dinamika (Krašņiņš O., 2009). Jāuzsver, ka attīstības indekss ir standartizēts rādītājs. Ja salīdzina šī indeksa vērtību skatījumā pa gadiem, tad var novērot katra Dienvidlatgales reģiona teritorijas attīstības gaitu no 1999. gada līdz konkrētā novada izveidošanās laikam, jo tālāk attīstības indekss tiek aprēķināts visa novada teritorijai kopumā, vairs neizdalot pa pagastu teritorijām. Neapšaubāmi arī nākotnē ir svarīgi izveidot un uzturēt reģionālās attīstības datu bāzi, kur attīstības indeksa nepieciešamība un pielietojamība nākotnē var tikai pieaugt un aktualizēties, jo indekss kā tāds tiks vairāk reāli pielietots teritoriju un stratēģisko plānojumu darbā.

Vairāki Latvijas akadēmiķi – E. Vanags, O. Krašņiņš, E. Vanags, V. Locāne – saskaņā ar teritorijas attīstības indeksa vērtībām, ir ieviesuši teritoriju sadalījumu par attīstības grupām, sadalot tās kvalitatīvajos vērtējumos. Teritorijas attīstības indeksa intervāls no 3 un vairāk apzīmē ekstremālu teritorijas kvalitātes vērtējumu: No 2.0 līdz 2.9 – ļoti labs teritorijas kvalitātes vērtējums; No 1.0 līdz 1.9 – Labs teritorijas kvalitātes vērtējums; No 0.5 līdz 0.9 – Samērā labs teritorijas kvalitātes vērtējums; No 0.0 līdz 0.49 – Nedaudz pozitīvs teritorijas kvalitātes vērtējums; No 0.0 līdz -0.49 – Nedaudz negatīvs teritorijas kvalitātes vērtējums; No -0.5 līdz -0.9 –

Samērā slikts teritorijas kvalitātes vērtējums; No -1.0 līdz -1.9 – Slikts teritorijas kvalitātes vērtējums; No -2.0 līdz -2.9 – Ļoti slikts teritorijas kvalitātes vērtējums. No -3.0 un vairāk – Ekstremāls teritorijas kvalitātes vērtējums (Mainoties saglabājies..., 2008).

Dienvidlatgales reģiona teritoriju attīstības indeksu un rangu analizē darba autors ievērojot iepriekšminēto kvalitatīvo vērtējuma sadalījumu. Analizējot teritorijas attīstības indeksus un rangus, dati tika apkopoti sākot no 1999. gada līdz 2007. gadam, ņemot vērā konkrētā gada indeksam un rangam nepieciešamo datu aprēķinus. Indeksi un rangi ir uzrādīti pēc oficiāli pieejamajiem valsts statistikas datiem. Uz doto brīdi 2008. gada dati nav izmantoti attīstības indeksa aprēķiniem – 2008. gada attīstības indeksa lietošanas pielīdzinājumam, analītikai un indeksa noteikšanai tiek izmantoti iepriekšējā gada dati. Jaunākajos MK noteikumos nr. 319 „Noteikumi par teritorijas attīstības indeksa aprēķināšanas kārtību un tā vērtībām” (07.04.09.) teritorijas attīstības indeksam tiek izmantoti 2007. gada dati. Darba autors, analizējot Dienvidlatgales reģionu, attīstības indeksu ir pētījis un analizējis tieši tam gadam, kurā indeksa aprēķināšanas dati tika izmantoti, lai noteiktu indeksa vērtību. Analītika ir veikta gan rajonu teritoriju kopējā skatījumā, gan pilsētu, pilsētnovadu un novadu skatījumā, jo pieejamie oficiālie valsts attīstības indeksi ir sadalīti pēc iepriekšminētajiem kritērijiem.

2. Dienvidlatgales reģiona novadu teritoriju attīstības indeksa un ranga analīze

2. Analysis of the Southern Latgale region county territory development index and rank

Kopumā Latvijas teritorijā ietilpst 26 rajoni, Dienvidlatgales reģionā ietilpst trīs rajoni – Daugavpils, Krāslavas un Preiļu. Rajoni ir pietiekami liela teritorijas vienība, lai to raksturojošie dati būtu stabili un nebūtu pakļauti dažādu nejaušību izraisītām svārstībām. Analizējot rajonu kopējo teritorijas attīstības indeksu (Skatīt 1. attēlu un 1. tabulu), secināms, ka Dienvidlatgales reģions ir viens no viszemāk attīstītajiem – tie ir rajoni ar samērā sliktu un sliktu attīstības līmeni. Pētot visas Latvijas rajonu kopējo situāciju, ir novērojams, ka lielākā daļa rajonu ir ar negatīvu teritorijas attīstības indeksu. Visiem Dienvidlatgales reģiona rajoniem teritorijas attīstības indekss ir ar negatīvu zīmi, analizējot rajonu attīstību gadu griezumā (1999. gadu salīdzinot ar 2007. gadu), secināms, ka tikai Preiļu rajona teritorijā ir novērojamas pozitīvas izmaiņas ar tendenci uz pieaugumu.

Kopvērtējumā skatoties visiem trim rajoniem ir vērojama minimāla, bet tomēr pozitīva teritorijas attīstības indeksa pieauguma raksturojums.

Teritorijas attīstības iegemamās vietas jeb rangi, salīdzinājumā ar visiem 26 Latvijas rajoniem, Dienvidlatgales reģionam ir vienas no viszemākajām vietām. Salīdzinot rangu pieaugumu pa gadiem

2. tabula
Table 2**Dienvidlatgales reģiona rajonu teritorijas attīstības rangs no 1999.gada līdz 2007. gadam**
Territory development rank of the Southern Latgale region from 1999 to 2007

Rajons/Gads	1999	2000	2001	2002	2003	2004	2005	2006	2007	Izmaiņas +/-
Daugavpils rajons	12	20	20	20	22	22	23	22	22	10
Krāslavas rajons	23	24	24	23	23	25	25	25	24	1
Preiļu rajons	22	22	22	22	21	21	21	20	21	-1

Avots: Autora izveidota tabula pēc 1999.-2007. gadu statistikas datiem. 1999.g. līdz 2002.g. (Dažādā Latvija..., 2004), 2003.g. līdz 2005.g. (Reģionu attīstība..., 2007), 2006.g. (LR MK Noteikumi Nr. 370, 2008), 2007.g. (LR MK Noteikumi Nr. 319, 2009).

3. tabula
Table 3**Dienvidlatgales reģiona pilsētu un pilsētnovadu teritorijas attīstības indekss no 1999.gada līdz 2007. gadam****Territory development index of the Southern Latgale towns and county towns from 1999 to 2007**

Pilsēta, pilsētnovads/ Gads	1999	2000	2001	2002	2003	2004	2005	2006	2007	Izmaiņas +/- (2007.g.- 1999.g)
Līvānu novads	-2.686	-2.311	-2.371	-2.094	-2.035	-2.211	-2.119	-2.042	-2.226	0.460
Preiļu novads	-1.273	-0.973	-0.911	-0.870	-0.979	-1.019	-1.110	-0.947	-0.815	0.458
Daugavpils pilsēta	-0.512	-0.361	-0.348	-0.269	-0.271	-0.533	-0.428	-0.402	-0.314	0.198
Krāslavas novads	-0.778	-1.082	-1.232	-1.116	-1.174	-1.305	-1.442	-1.441	-1.100	-0.322
Subate	-2.097	-2.120	-2.129	-2.504	-2.577	-2.398	-2.614	-2.898	-2.455	-0.358
Ilūkstes novads	-0.549	-0.998	-1.076	-1.281	-1.805	-1.786	-2.118	-1.914	-1.622	-1.073
Dagdas pilsēta	-0.703	-1.988	-1.983	-2.174	-2.370	-2.009	-2.556	-2.540	-2.533	-1.830

Avots: Autora izveidota tabula pēc 1999.-2007. gadu statistikas datiem. 1999.g. līdz 2002.g. (Dažādā Latvija..., 2004), 2003.g. līdz 2005.g. (Reģionu attīstība..., 2007), 2006.g. (LR MK Noteikumi Nr. 370, 2008), 2007.g. (LR MK Noteikumi Nr. 319, 2009).

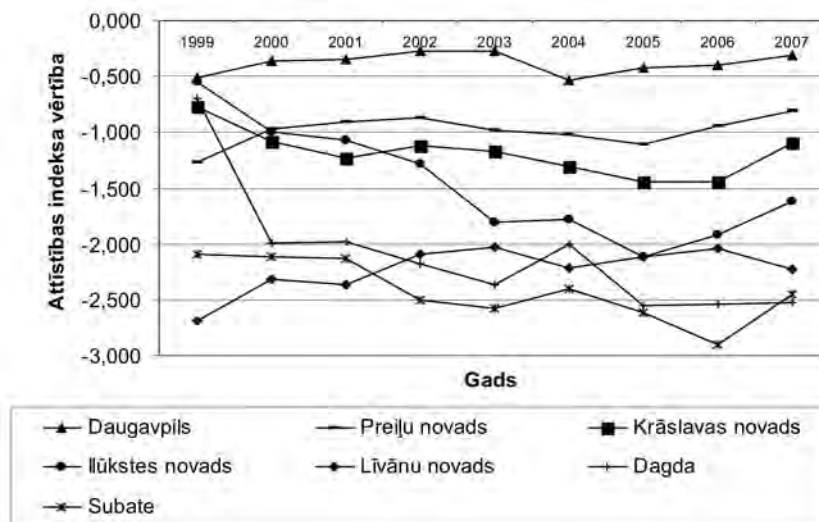
(skatīt 2. tabulu), rezumējams, ka tas ir gandrīz nemainīgs ar pozitīvu pieauguma tendenci. 2004. līdz 2006. gadu laikā Krāslavas rajons bija sasniedzis iepriekšpēdējā zemākā valsts rajona attīstības vietu, tomēr jau 2007. gadā ir situācija uzlabojusies un tas sasniedzis 24 attīstības rangs. Vispozitīvāk no visiem trīs rajoniem ir vērtējams Preiļu rajons (2006. gadā pat sasniedzot attīstības 20 rangs), pēc tā ierindojas Daugavpils rajons un Krāslavas rajons.

Kopējais Dienvidlatgales reģiona skatījums attiecībā uz visu valsts teritoriju ir vērtējams kā negatīvs – vienas no zemākajām teritorijas attīstības vietām. Izstrādājot reģiona iespējamās attīstības scenārijus, ir jāņem vērā katra rajona, novada zemās attīstības pamatfaktori, kas atainojas teritorijas attīstības indeksa aprēķina pamatrādītājos.

Statistikas datu analītika dalīti šķir pilsētu un pilsētnovadu teritoriju attīstības indeksus un rangus.

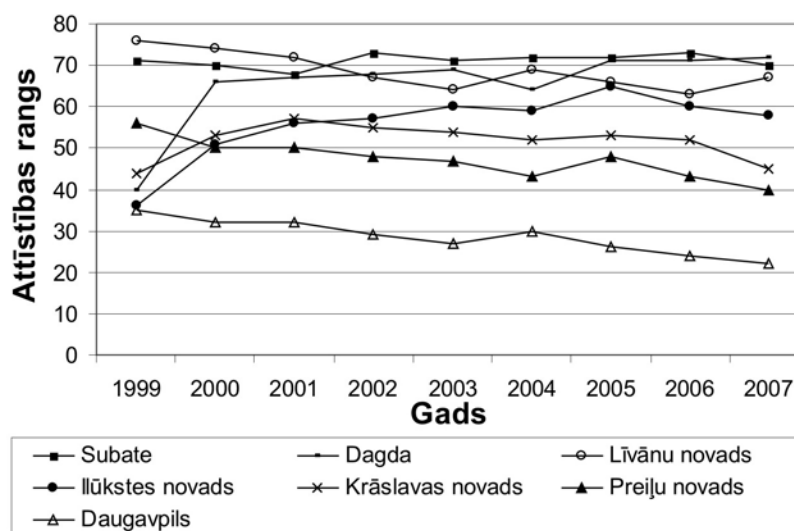
Kopā skaitliski valstī tiek salīdzinātas 77 pilsētas un pilsētnovadi. No tiem septiņi – Daugavpils, Dagda, Subate, Preiļu novads, Krāslavas novads, Ilūkstes novads un Līvānu novads – atrodas Dienvidlatgales reģiona teritorijā. Diemžēl neviena no pilsētām un pilsētnovadiem nav ar pozitīvu teritorijas attīstības indeksu, teritorijas ir ar negatīvu, samērā sliktu un sliktu attīstības līmeni. Tikai Daugavpils pilsēta analītikas gadu periodā ir uzrādījusi nelielu negatīvu attīstības indeksa kvalitatīvo vērtējumu. Analizējot faktu, ka tā republikā ir otrā lielākā pilsēta valstī, arī šis rādītājs norāda, ka Latvijā pastāv ievērojama centralizācija – finansējums un augstāks dzīves kvalitātes līmenis tiek koncentrēts galvaspilsētā un ar Rīgu robežojamajās rajonu teritorijās. Dienvidlatgale ir viena no visattālāk no galvaspilsētas esošajām teritorijām.

Salīdzinot teritoriju attīstības datus starp reģiona pilsētām un pilsētnovadiem, var secināt, ka laika



Avots: Autora izveidots grafiks pēc 1999.-2007. gadu statistikas datiem. 1999.g. līdz 2002.g. (Dažādā Latvija..., 2004), 2003.g. līdz 2005.g. (Reģionu attīstība..., 2007), 2006.g. (LR MK Noteikumi Nr. 370, 2008), 2007.g.(LR MK Noteikumi Nr. 319, 2009).

2. att. Dienvidlatgales pilsētu un pilsētnovadu teritorijas attīstības indekss (1999.g.-2007.g.)
Figure 2. Territory development index of the Southern Latgale towns and county towns (1999-2007)



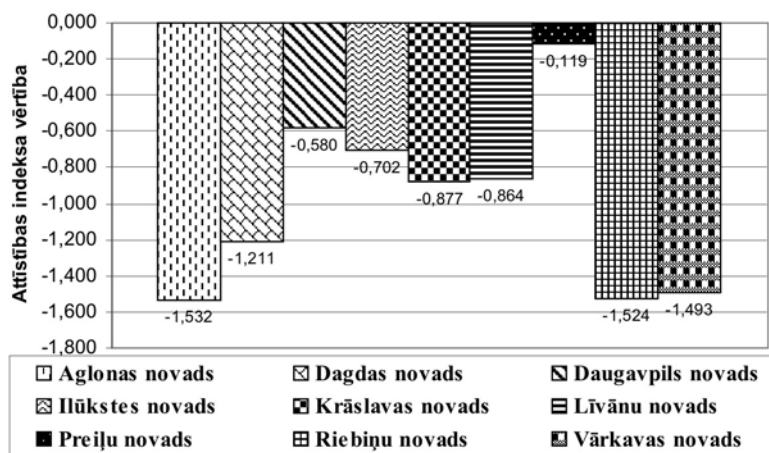
Avots: Autora izveidots grafiks pēc 1999.-2007. gadu statistikas datiem. 1999.g. līdz 2002.g. (Dažādā Latvija..., 2004), 2003.g. līdz 2005.g. (Reģionu attīstība..., 2007), 2006.g. (LR MK Noteikumi Nr. 370, 2008), 2007.g.(LR MK Noteikumi Nr. 319, 2009).

3. att. Dienvidlatgales pilsētu un pilsētnovadu teritorijas attīstības rangs (1999.g.-2007.g.)
Figure 3. Territory development rank of the Southern Latgale towns and county towns (1999-2007)

posmā no 1999. gada līdz 2007. gadam lielākoties minētajās teritorijās ir bijuši gan uzlabojumi, gan situācijas pasliktināšanās (Skatīt 2. attēlu un 3. tabulu), tomēr pēdējo gadu laikā ar tendenci uzlaboties, izņemot Līvānu novadu 2007. gadā.

Visstraujākā attīstība no 1999. gada līdz 2007. gadam ir novērota Līvānu novadam (izmaiņas teritorijas attīstības indeksā par +0.46), tāpat arī

Preiļu novadā ir bijusi strauja izaugsme (+0.458). Kā negatīvos piemēru var minēt Dagdas pilsētu, kur ir noticis visstraujākais teritorijas rādītāju pazeminājums (teritorijas attīstības indeksa samazinājums par -1.83) un Ilūkstes novadu (-1.073). Ja pārējām pilsētām un pilsētnovadiem teritorijas attīstības indekss minēto gadu laikā nav bijis ar pārāk ievērojamiem kāpumiem vai kritumiem,



Avots: Autora izveidots grafiks pēc 2007. gada statistikas datiem (LR MK Noteikumi Nr. 319, 2009).

4. att. Dienvidlatgales reģiona novadu teritoriju attīstības indekss 2007. gadā (pēc jaunās indeksa, rangu noteikšanas kārtības)

Figure 4. Territory development rank of the Southern Latgale region county in 2007 (by new index, rank calculate procedure)

tad tieši Dagdas pilsētai un Ilūkstes novadam ir bijis vērā ņemams kritums. Būtiskākie iemesli situācijas straujajām izmaiņām ir bezdarba pieaugums, kas veicināja iedzīvotāju skaita sarukšanu un iedzīvotāju ienākuma nodokļa pazeminājumu.

Reģiona teritoriju attīstības ziņā 2007. gadā līderis teritorijas attīstībā Dienvidlatgalē ir Daugavpils pilsēta, otrs pozitīvākais līderis ir Preiļu novads, kam seko Krāslavas un Ilūkstes novadi. Visnegatīvākā situācija ir novērojama Dagdā un Subatē (Skatīt 3. attēlu).

Teritoriju attīstības rangā, salīdzinot ar visām 77ām Latvijas teritorijā ietilpstošajām pilsētām un pilsētņovadiem, Dienvidlatgales reģionā no esošajām pilsētām un pilsētņovadiem visaugstākais attīstības ranga vērtējums ir bijis Daugavpils pilsētai – 22 vieta 2007. gadā. Protams, kopējā situācija uzrāda, ka Dienvidlatgales teritorijā esošās pilsētas un pilsētņovadi attīstības ziņā nav līderi un to novērtējums ir zem vidējā valsts teritoriju attīstības līmeņa. Pozitīvs rādītājs, salīdzinot attīstības līmeni ar 2007. gadā ar 1999. gadu, norāda, ka lielākā daļa reģiona pilsētu, pilsētņovadu gadu laikā ir pakāpeniski attīstījušās, īpaši atzīmējams ir Preiļu novads (attīstība par 16 ranga vietām), Daugavpils (attīstība par 13 ranga vietām) un Līvānu novads (attīstība par 9 ranga vietām). Lai arī Līvānu novads kopējā reģiona teritoriju vērtējumā ir viens no zemākajiem, attīstības izaugsmes ziņā kopš 1999. gada ir bijusi ievērojama izaugsme – no iepriekšpēdējās attīstības ranga vietas 1999. gadā līdz 67 ranga vietai 2007. gadā. Praktiski nemainīgas ranga attīstības pozīcijas ir bijušas Subates pilsētai un Krāslavai, kur pēdējai pētāmā perioda laikā situācija teritorijā ievērojami pasliktinājās, bet jau 2007. gadā tā ir sasniegusi gandrīz to pašu attīstības līmeni, kāds bijis 1999. gadā, arī skatoties un analizējot pēc attīstības indeksa svārstībām pētāma perioda laikā. Vislielāko un ievērojamāko attīstības ranga vietu

kritumu analizējamā perioda laikā ir piedzīvojis Ilūkstes novads un Dagdas pilsēta. Ilūkstes novads, 1999. gada vērtējumā, tika atzīts par valsti vidēji attīstītu teritoriju, diemžēl turpmākajos gados ir novērojams straujš attīstības kritums, arī pētot attīstības indeksa analītiskā. Un tikai pēdējo 2 gadu laikā ir novērojama minimāla, bet attīstības augšupeja.

Attīstības ranga vērtējumā pētāmajā reģionā esošās pilsētas un pilsētņovadi uzrāda zemu attīstības vērtējumu, kā vienu no zemākajiem gan valsti kopumā, gan reģionā ir jāmin divas pilsētas – Subate (70 attīstības ranga vieta 2007. gadā) un Dagda (72 attīstības ranga vieta 2007. gadā). Tikai viena no reģiona pilsētām ir pārvarējusi attīstības ranga vidējo vērtējumu Daugavpils, ieņemot 22 vietu rangā 2007. gadā.

Pēc jaunā 2009. gada jūnijā izveidotā un apstiprinātā administratīvo teritoriju dalījuma Dienvidlatgalē savu pastāvēšanu ir uzsākuši trīs jaunie novadi – Aglonas, Dagdas un Daugavpils novadi. Pirms tam jau pastāvēja 6 izveidotie novadi – Ilūkstes, Krāslavas, Līvānu, Preiļu, Riebiņu un Vārkavas novadi. Pēc 2009. gada jūnija jau esošajiem novadiem papildus klāt tika pievienotas vairākas teritorijas. Pirmais novads Dienvidlatgales reģionā tika izveidots 1999. gadā un kā pēdējais pirms 2009. gada jūnija – 2004. gadā. Ņemot vērā esošo situāciju, ir sarežģīti analizēt visu esošo un pēc 2009. gada jūnija jaunizveidoto novadu teritoriju attīstības indeksu un rangu, jo dati pētāmajā periodā tiek uzskaitīti kā pagastu teritorijām, daļēji kā novadu teritorijām, bet tikai no 2009. gada jūnija visas teritorijas ir noteiktas kā novadi vai pilsētas ar republikas pilsētas statusu. Jaunākajos MK noteikumos Nr. 319 „Noteikumi par teritorijas attīstības indeksa aprēķināšanas kārtību un tā vērtībām) (07.04.09.), kas skar teritorijas attīstības indeksa un ranga noteikšanas analītiku, aprēķini ir

veikti pēc jaunās kārtības un indeksi, rangi ir MK apstiprināti teritoriju sadalījumam, kas noteikts pēc 2009. gada jūnija. Teritoriju aprēķinos ir iekļauti visi jaunajos novados ietilpstošie pagasti, bet diemžēl dati 2009. gada teritorijas attīstības indeksa un ranga noteikšanai ir izmantoti par 2007. gadu. Tas nozīmē, ka reāli teritorijas attīstības indekss un rangi, kuru piemēro 2009. gadā attiecas uz 2007. gada situāciju un darba autors analizē to piemēro 2007. gadam pēc jaunizveidoto novadu teritoriju sadalījuma. Ņemot vērā esošo situāciju, darba autors sīkāk ir analizējis tieši 2007. gada datus, skatot tos pēc jaunā novadu teritoriju analītikas.

Veicot aprēķinus pēc jaunās teritorijas attīstības indeksa noteikšanas metodes, kopējā Dienvidlatgales attīstības dinamika būtiski nav mainījies – joprojām tai ir negatīva indeksa vērtība (Skatīt 4. attēlu).

No kopējā reģiona novadu vērtējuma jāakcentē Preiļu novads, kur 2007. gada laikā tiek uzrādīts nedaudz negatīvs teritorijas attīstības indekss, kas ir labākais no reģiona novadu rādītājiem. Samērā slikts attīstības indekss ir Daugavpils, Ilūkstes, Krāslavas un Līvānu novadiem. Kā slikts teritorijas attīstības indekss tiek noteikts Dagdas, Vārkavas, Riebiņu un Aglonas novadiem.

Salīdzinot teritorijas attīstības indeksa aprēķinu pēc iepriekšējo gadu metodes, redzams, ka dati 2007. gadā ievērojami atšķiras ar jaunās metodes aprēķina datiem. Piemēram, Preiļu novada dati atšķiras par 0.696 indeksa vienībām, šajā gadījumā atšķirības ir pozitīvas, bet, piemēram, Riebiņu novada teritorijas attīstības indekss abos aprēķina metožu variantos atšķiras par -0.642 indeksa vienībām – šajā gadījumā atšķirības ir negatīvas, novada teritorijas attīstības indekss ir pazeminājies. Tāpat pētot iepriekš analizētos pilsētnovadus, kuriem iepriekš tika noteikta visnegatīvākā teritorijas attīstības indeksa vērtība Dienvidlatgales reģionā – Dagdas, Līvānu un Ilūkstes – pēc jaunās aprēķina metodes teritorijas attīstības indekss ievērojami atšķiras – indeksa vērtība ir lielā mērā paaugstinājusies, piemēram, Līvānu novadā par 1.362 indeksa vienībām, Dagdas novadam par 1.322 indeksa vienībām.

Analizējot pētāmā reģiona novadu teritorijas attīstības rangus, kopējo skatījumu, salīdzinot visu Latvijas teritoriju, ir jāņem vērā iepriekš aprakstītās īpatnības analizē ar pieejamajiem datiem. Līdz ar to darba autors ir sīkāk analizējis 2007. gada rangus reģiona novadu teritorijām pēc jaunās teritoriju attīstības indeksu, rangus noteikšanas kārtības.

Kopš 2009. gada jūnija, Latvijā ir noteiktas deviņas pilsētas ar republikas pilsētas statusu un 109 novadi. Analizējot Dienvidlatgales teritorijā esošo novadu teritorijas attīstības rangus vai vietu, kopējo skatījumu visas Latvijas novadu teritoriju attīstības ziņā, ir secināms, ka pētāmā reģiona novadu attīstības rangi ir vieni no zemākajiem, salīdzinājumā ar valstī esošajiem novadiem. Vispozitīvākā situācija ir Preiļu novadam, kurš atrodas 53 attīstības ranga vietā starp 109 Latvijas novadiem. Pārējie Dienvidlatgales reģiona novadi atrodas sākot no 79 un zemākos attīstības rangos.

Ar viszemāko attīstības rangus atzīmējami Aglonas, Dagdas, Riebiņu un Vārkavas novadi. Esošā situācija norāda, ka pārējās Latvijas pašvaldībās attīstības indeksi un rangi pieauguši ar ievērojami straujākiem tempiem, tādējādi apsteidzot Dienvidlatgales reģiona novadus un tos atstājot kā vienus no viszemāk attīstītajiem.

Uz dotu brīdi Dienvidlatgales reģionā ietilpst vienas no viszemāk attīstītajām teritorijām Latvijā. Ar teritoriju attīstības indeksu un rangus palīdzību ir viegli un pārskatāmi novērtējama visu Latvijas teritorijā esošo administratīvo teritoriālo vienību situācija un to attīstība laika posmos. Pilsētu, novadu un pilsētnovadu esošā situācija Dienvidlatgalē norāda uz Latvijā esošo teritoriju attīstības nevienlīdzību. Lai arī Latvijas valsts ir salīdzinoši maza, tomēr attīstības rādītāji pilsētās, novados un pilsētnovados ir krasi atšķirīgi. Līdz šim valsts teritoriju reģionālā attīstība nav bijusi viena no galvenajām valsts prioritātēm – nav veikti būtiski pasākumi un programmu īstenošana, kas to virzītu.

Izstrādājot un realizējot valsts atbalstītus reģiona attīstības un pilnveidošanas programmas pasākumus, Dienvidlatgales reģionu ir iespējams attīstīt un pilnveidot, izveidot kā uzņēmējdarbībai labvēlīgu teritoriju un vidi un paaugstināt iedzīvotāju dzīves kvalitāti. Piemēram, Dienvidlatgales reģiona ģeogrāfiskais izvietojums pārstāv objektīvu priekšrocību, kuru var izmantot vairāku uzņēmējdarbības jomu attīstībai un aktivitāšu paaugstināšanai – eksporta plūsmas sekmēšanu (reģiona teritoriāli izdevīgais izvietojums, robežas ar citām valstīm), tūrisma jomas vairāknazaru attīstība (sagrālais, ūdens, aktīvais, rekreācijas, kultūras, izziņas u.c. tūrisma nozares), kokapstrādes jomas pilnveidošana (produktu ar pievienoto vērtību attīstība), lauksaimniecības jomu attīstība (piena un gaļas produktu ražošana, netradicionālo lauksaimniecības jomu attīstība), rūpniecības nozares attīstība (ķīmiskās rūpniecības un vieglās rūpniecības attīstība) un citas potenciālās nozares.

Secinājumi un priekšlikumi

Conclusions and proposals

- Galveno teritoriju attīstības indeksa aprēķināšanas pamatrādītāju vērtības sniedz iespēju raksturot teritoriju sociāli ekonomiskās attīstības atšķirības, tāpat arī noteikt iedzīvotājiem pievilcīgas teritorijas, atspoguļojot teritoriju atšķirības labklājības ziņā, salīdzināt tās nodarbinātības jomā un diferencēt esošo līmeni un citas attīstības tendences.
- Pilsētu, novadu un pilsētnovadu esošā situācija Dienvidlatgalē norāda uz Latvijā esošo teritoriju attīstības nevienlīdzību. Latvija salīdzinoši ir maza valsts, tomēr teritoriāli teritoriju attīstības līmeņi krasi atšķiras. Uz dotu brīdi kā viszemāk attīstītais reģions pēc teritoriju attīstības indeksa un rangus rādītājiem valstī ir Latgale.
- Latvijas rajonu situācija uzrāda, ka lielākā daļa rajonu ir ar negatīvu teritorijas attīstības indeksu.

4. Ņemot vērā teritoriju attīstības indeksa un rangu rādītājus, secināms, ka Latgales reģionā sociālekonomiskā situācija ir sliktāka nekā Latvijā vidēji. Tas skaidrojams ar teritorijas attālumu no valsts galvaspilsētas, vēsturisko gaitu attīstību un uzņēmējdarbības aktivitāti reģionā. Saimnieciskās darbības atšķirības novērojamas teritoriju nevienmērīgā ekonomiskā attīstībā un saimnieciskajā aktivitātē, nodarbinātības un bezdarba līmenī, iedzīvotāju ienākuma līmenī un kultūras dzīves nosacījumos. Reģionu un teritoriju nevienmērīgā ekonomiskā attīstība Latvijā ir veidojusies vēsturiski gan objektīvu, gan subjektīvu faktoru ietekmē.
5. Nākotnē ir svarīgi izveidot un uzturēt reģionālās attīstības datu bāzi, kur attīstības indeksa nepieciešamība un pielietojamība var tikai pieaugt un aktualizēties, jo indekss kā tāds tiek vairāk un vairāk pielietots teritoriju un stratēģisko plānojumu darbā.
6. Izstrādājot teritoriju attīstības, valsts reģionālās attīstības programmas, dokumentus utt., ņemt vērā krasās atšķirības starp reģioniem un novadiem. Kā arī vēlams nākotnē ielāņot un reāli veikt teritoriju attīstības izlīdzināšanas (izlīdzināšanas uz augšu) pasākumus, kas novērstu centralizācijas problemātiku valsts teritorijā.
7. Ja pagasti (nevis novadi!) netiks saglabāti kā statistiskās uzskaites vienības, tad nākotnē nebūs iespējams noteikt teritorijas attīstības indeksa izmaiņas un novērtēt novadu izveides pozitīvo vai negatīvo ietekmi uz katru teritoriālo vienību.
8. Analizējot teritoriju attīstības indeksus un rangus Dienvidlatgalē, secināms, ka visstraujākā attīstība no 1999. gada līdz 2007. gadam ir novērota Līvānu un Preiļu novadiem. Kā negatīvos piemērus var minēt Dagdas pilsētu un Ilūkstes novadu. Būtiskākie iemesli situācijas straujajām izmaiņām ir bezdarba pieaugums, kas veicināja iedzīvotāju skaita sarukšanu un iedzīvotāju ienākuma nodokļa pazeminājumu.
9. Daugavpils pilsētas pozitīvais rādītājs (22 vieta rangā 2007. gadā) sniedz objektīvu stimulu un iespēju arī attīstīties blakus esošajiem novadiem un pilsētām un visam reģionam kopumā nākotnē sasniegt attīstības indeksu ar pozitīvu rādītāju.
10. Kopvērtējumā visiem Dienvidlatgales teritorijā esošajiem rajoniem ir vērojama minimāla, bet tomēr pozitīva teritorijas attīstības indeksa pieauguma raksturojums.
11. Izstrādājot un realizējot valsts atbalstītus reģiona attīstības un pilnveidošanas programmu pasākumus, ņemot vērā Dienvidlatgales reģiona pieejamos resursus un ģeogrāfisko atrašanās vietu, ir iespējams attīstīt un pilnveidot, izveidot kā uzņēmējdarbībai labvēlīgu teritoriju un vidi un paaugstināt iedzīvotāju dzīves kvalitāti.

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Kopsavilkums

Vairāku gadsimtu garumā notikušu vēsturisku, Latvijai nozīmīgu notikumu gaitā, valstī esošie reģioni ir attīstījušies ar ievērojamām atšķirībām. Latgales reģiona mūsdienu situācija, statistikas dati un teritoriju attīstības indeksi norāda, ka tas ir viens no viszemāk attīstītajiem valstī. Dienvidlatgales reģionā ietilpstošajos novados esošā sociālekonomiskā situācija ataino investoriem un uzņēmējiem nepievilcīgu ainu, kas nerodina šeit ieguldīt resursus. Lai arī teritorijā esošie resursi teorētiski varētu veicināt reģiona attīstību, diemžēl notiekošie sociālie un ekonomiskie notikumi rāda, ka attīstības gaita ir salīdzinoši lēna. Attīstības procesi ir jāanalizē un jāvērtē, it īpaši, ja runa ir par konkrētu administratīvo teritoriju – novadu. Daudzi minētās

nozares akadēmiķi atzīst, ka, ja attīstības procesus nekontrolē un nevada, notiek noslāņošanās process, kurš var kļūt pat lavīnveidīgs. Līdz ar to bagātība rada bagātību un nabadzība atražo nabadzību.

Teritoriju attīstības indekss ir standartizēts rādītājs, kas pieder pie salīdzinājumu rādītāju grupas. Tā aprēķināšanai tiek izmantoti rādītāji, kas raksturo teritorijas sociālekonomisko attīstību. Līdz ar to teritorijas attīstības indeksi un rangi sniedz kopējo ieskatu teritoriju attīstībā salīdzinājumā gan visā valstī kopumā, gan noteiktā reģionā vai teritorijā konkrēta laika periodā un sniedz reāli iespējamo attīstības gaitu nākotnē. Ņemot vērā teritoriju attīstības indeksa rādītājus, visiem Dienvidlatgales teritorijā esošajiem rajoniem ir vērojama minimāla, bet tomēr pozitīva teritorijas attīstības indeksa pieauguma raksturojums. Līdz ar to nākotnē ir svarīgi izveidot un uzturēt reģionālās attīstības datu bāzi, kur attīstības indeksa nepieciešamība un pielietojamība var tikai pieaugt un aktualizēties, jo indekss kā tāds tiek vairāk un vairāk pielietots teritoriju un stratēģisko plānojumu darbā.

Atslēgas vārdi: Teritoriju attīstības indekss un rangs; Dienvidlatgales reģions; Sociālekonomiskā attīstība.

Theoretical Aspects of Innovative Design and Implementation Possibilities for Business Development in Latvia

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Abstract. The research aim is to investigate the theoretical aspects of innovative design promoting factors and foreign experience, and to define the implementation possibilities for business development in Latvia. The tasks of the research are to investigate and characterise the theoretical aspects of innovation and design in the economic literature; to characterise the factors influencing innovative design; to investigate the European experience for implementation of innovative design; and to define the implementation possibilities of design innovation for business promotion in Latvia.

Design and innovation are often key elements to the success of business enterprises, especially during the time of economic recession. The research focuses on the characteristics of innovation, design, and development, and is based on the studies of theoretical literature. The studies of literature have led to the specification of the role and significance of design innovation. The notion of design-driven innovation has been introduced, which is a systematic and "user-driven" approach to the ideas stage in the development of new products, services, business processes, or organisational forms based on the study of users' lives, practices or needs, including unacknowledged or latent needs, which one may expect will be demanded. The influencing factors of design innovation are characterised and specified in the study.

The research results show that business enterprises, which are using different kinds of resources for designing and developing cutting-edge products and processes, are more innovative and have better possibilities to maintain their competitiveness. The focus is laid towards innovation by design provided technology development, sustainability, and social changes of different countries. It requires an environment that is conducive to the creative and innovative activities, supported by both the public and the private sectors.

Key words: innovation, design, market, business, development.

Introduction

The world is changing, globalisation is increasing competition, and businesses are facing major challenges. Market economy is affected by consequences of the global financial crisis.

Perhaps it would be more advisable to bear in mind the wisdom in an old Chinese proverb "when the wind of change begins to blow, some people build windbreaks, while others build windmills" (*Stavik, 2009, p. 6*).

Evolutionary growth theory is based on J. Schumpeter, an Austrian economist fundamental recognition, who called this process "creative destruction". It involves destruction because many structures, traditions and businesses are destroyed. It is also creative because something new emerges as part of the same process. Hubner (2008) specified that creative ideas and innovative solutions were providing crucial help to Europe in order to emerge from the economic crisis which erupted at the end of 2008. Brudstad (2009) explains that an economic downturn does not mean that people or companies stop buying, but just means that they think twice before they spend money on something. Brudstad (2009) continues that the companies which would emerge unscathed from the financial crisis are the companies that manage to create products and solutions that are unique and that have particular a convincing stamp of quality, which provides with the enthusiasm of customers. Blackburn, Smallbone, Dixon (2009) point that knowledge in the

21st century is a notion driven by science, technology, culture, creativity, behavioural economics and, more importantly, an open-source approach to innovation. Innovative companies and business environments are required in order to overcome these major challenges and achieve success in a global competitive environment.

Design is definitely one of several tools that companies can use in their efforts to be innovative by capitalising available opportunities available on the market. By using professional design as an economic driver the economic development benefits on the microeconomic and macroeconomic level. *Brustad (2009)* explains that design driven innovation is a systematic approach to product development which should be applied to an even greater extent. It involves working in a methodical manner through the whole process, from concept development to market launch. Design can contribute to problem-solving, with designers focusing on the user during the development process, and being involved in developing goods and services which are unique on the market, and generating new competitive advantages. S. Brustad admitted that professional design competence had take on a more leading role for achieving results in innovation.

Frequently design concept is analysed mostly from the aspect of object rather than system promoting innovation and business development. The research addresses an innovative theme, which requires a lot of investigation in Latvia. The research exploits the

notion "design" in a broader sense. It encompasses design process, definition of user requirements, innovation and business growth, which are very essential for the economic development.

The research **hypothesis** was set based on the previous recognitions – the design driven innovations substantially influence the business development.

The research **aim** is to investigate the theoretical aspects of innovative design promoting factors and foreign experience, and to define the implementation possibilities for business development in Latvia.

The following **tasks** are stated to achieve the defined aim:

- 1) to investigate and characterise the theoretical aspects of innovation and design in the economic literature;
- 2) to characterise the influencing factors of innovative design;
- 3) to investigate European experience for the implementation of innovative design;
- 4) to define the implementation possibilities of design innovation for business promotion in Latvia.

The special economic literature and other materials were used in order to deal with defined tasks of the research. The monographic descriptive methods and the method of analysis and synthesis were used for the purpose of the study.

Innovation and design theoretical statements for business performance

Innovation and design definitions and role are described by many authors during the centuries. Angel R. (2005) mentioned that the classic

definition of innovation was "immense, incomplete and inimitable", while the design on earlier literature was understood and described more from designers' position. Nowadays strong link with innovation and design is highlighted. Kotler P. and Rath G.A. (1984) admitted that design was a potent strategic tool, which companies could use to gain a sustainable competitive advantage. Locke J. (1985) states that design is "the conscious decision-making process by which information (an idea) is transformed into an outcome, be it tangible (product) or intangible (service)". Swann P. and Birke D. (2005) admit that one of the most useful definitions is provided by Michael Wolff (here quoted in abbreviated form): "Design is a vision Design is a process Design is a result". Swann P. and Birke D. (2005) point that there are many different linkages between creativity, R&D, design, innovation, productivity, creative culture or creative climate, and performance, with some of these linkages operating in two directions. Design is also a visual style of an organisation with the purpose be visible in the market. The quality of working environment can be improved through design efforts and design directly linked with productivity. Several authors have discovered linkages of design with other categories. Nussbaum B. (2007) states that design thinking is part of the design driven innovations. "... design thinking (or whatever we wind up calling this new field) is being created at the borders of design, business, engineering, and even marketing." The design thinking cannot be separated from creativity. Cunningham P. (2008) points creativity factor as an inherent factor in the processes of research, development, and innovation.

Table 1

Factors of design task by Goel A.K. and Crown S. (2006)

No	Factors	Description
1.	Breath	Design pertains to all kinds of artefacts of architecture, engineering, computer software, and human-machine interfaces; designs of products and systems to designs of processes and services.
2.	Stages	Design involves a multitude of stages. Design process starts with some design requirements, and ends in an implementation of a product that satisfies the requirements. Requirements analysis, preliminary design, detailed design, geometric modelling, simulation, optimisation, embodiment, prototype testing, manufacturing and assembly are some of the common stages of product design.
3.	Specification	Design is very open-ended. The specification of the design problem may evolve during the design process, and the problem and the solution specifications may co-evolve.
4.	Complexity	Design is extremely complex and generally involves a large number of interacting components.
5.	Collaboration	Designers work individually and in a team spatially and temporally, in a particular social and cultural context.
6.	Representation	Design typically involves consideration of both forms (two-dimensional (2-d) drawing and function or a three-dimensional solid mode) and functions (schemes and graphs), and performance is typically represented using numerical measures.
7.	Integration	Computer-aided design (CAD etc.) tools and environments.
8.	Creativity	The design task in general poses the challenge of addressing the issues of innovation and creativity.

According to Ambler and Styles (1997), technology, competition, and consumer trends or needs are the traditional drivers for product innovation and changes in one or several of these dimensions cause the company to react by means of product innovation. Based on this statement Roscam E. and Gessel C. (2008) note that differentiation through innovation can only take place when the innovation is based on unique insights in a changing world. Ylä-Anttila P. (2005) highlights that design and innovation in the economic analysis are intangible capital: design, R&D, IT, brand, equity, and human competencies have become as important growth source in advanced economies as traditional tangible capital.

Goel A.K. and Crown S. (2006) investigate that design is based on modifications and adaptations of existing designs. The summarisation of eight factors for design task is presented in Table 1.

There were put forward eight factors for description of design, innovation and case-based reasoning: breath, stages, specification, complexity, collaboration, representation, integration, and creativity.

The quality of working environment can be improved through design efforts and design directly linked with productivity. Stevens J., Moultrie, and Crilly N. (2008) propose integrated or holistic approach in which "design might be termed strategically: an integrated design approach helps maintain a strategic position, and design thinking informs strategy formulation". By Kotler P. and Rath G.A (1984) some companies still neglect design as a strategic tool. However during the period of global recession, there are possible attitude changes towards the evaluation of design strategy as innovation force. This statement needs further investigation and discussion.

The European Commission has evaluated the role of design in the business development. The European Commission Staff Working Paper (2009) has recognised design as a driver and enabler of innovation complements as more traditional innovation activities such as research. The document states that in the current economic climate, where resources for innovation are scarce, design and other non-technological innovation drivers, such as organisational development, employee-involvement and branding, become particularly relevant. The development of tools and support mechanisms for design-driven, user-centred innovation, networking and research, and collaboration in education and training are the areas of action that could help remove some of the barriers to better use of design in Europe.

User-driven innovation and design driven innovation

Design innovation alone does not guarantee market success, Crabb H (2004) states that above all else, successful products are aimed at customer needs and expectations. Design is increasingly considered a strategic tool for user-centred

innovation. Hippel E. (2001) has introduced the notion of user-driven innovation to describe the ability of user to initiate and develop exceedingly complex products. Hippel E. (2004) has described the role of user-centred innovation processes, which offer great advantages over the manufacturer-centric innovation development systems that have been the mainstay of commerce for hundreds of years. Cunningham P. (2008) describes user driven innovation as a holistic and multidisciplinary problem-solving approach that takes user needs, aspirations and abilities as its starting point and focus. Cunningham P. (2008) also proposes that the term "users" shall be taken in the broadest sense of the word and may include consumers, customers, employees, organisations, partners, suppliers, or other members of the society. The process could be characterised by an interdisciplinary coupling of design expertise from the very start of the project and an ability to transform any information gained into new business opportunities via concrete sketches, prototypes, and descriptions of solutions.

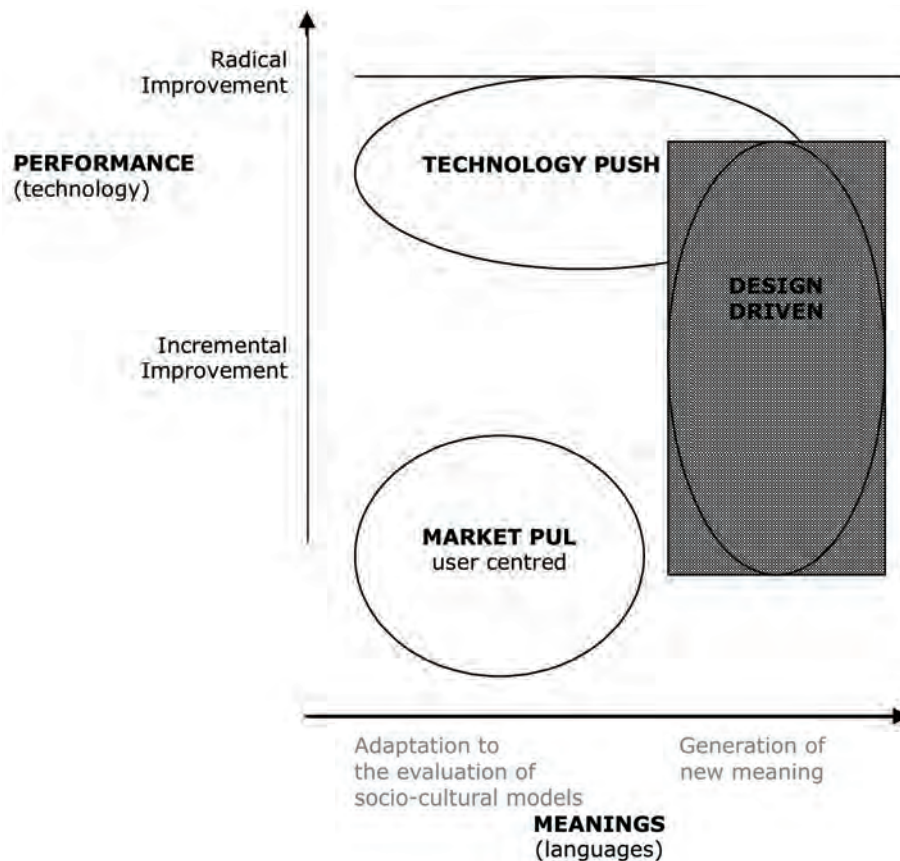
The question from the research has come up: why the user driven innovation is successful? The explanation by Hopkins C.R. (2008) is that customers always have problems to solve.

Abbing E.R. and Gessel C. (2008) point that in the world organisational authenticity and end user relevance are increasingly seen as the key success factors in innovation and design.

The Nordic Innovation Centre has launched "User-Driven Innovation" as a new theme within its Nordic Innovation Policies' focus area. User-driven innovation has been catalysed by increasing global competition – and the challenge of developing exclusive knowledge and skills to remain internationally competitive. There is a need to change the way of thinking and the approach to innovation in order to develop solutions which are tailored to specific consumer values. Levering skills in the creative (e.g. design, etc.) and human sciences (e.g. sociology, anthropology, psychology, ethnology, etc.), and further developing the area of marketing science can help change the thinking.

User-driven innovation can be characterised by:

- 1) **more direct involvement of the user/consumer in the innovation process** – either through observation processes, toolkits, user panels, or letting them do it themselves;
- 2) **a strategic focus on consumer pull** – producing goods that can be sold, rather than selling what is produced;
- 3) **revenue-enhancing activities (vs. cost-cutting activities) by developing solutions that better meet consumer needs** – investing more skills, energy and resources on understanding consumer needs and developing solutions that are more specifically targeted to meeting these needs (often resulting in increased product introductions);
- 4) **use of multiple skills and perspectives in the innovation process** – adding ethnologists, anthropologists and designers to the scientists, engineers and business specialists.



Source: Verganti R., 2009

Figure 1. Innovation Strategy

However innovation expert Verganti R. (2009) has introduced a new notion of design driven innovation, which is not related to the conventional thinking of design innovation coming from markets called as incremental innovation or technology innovation called as radical innovations. Verganti R. (2009) has recognised that design driven innovation creates new markets. As example he has explained Apple's iPod that customers did not ask for such technology, but when they experienced it, it "was loved by first sight". Steve Jobs – a marketing manager at Apple in the Mac World Conference 2008 informed that "We do not think most users will miss the optical drive. We do not think they will need an optical drive. It is really hard to design products by focus groups. A lot of times, people do not know what they want until you show it to them."

Verganti R. (2009) has described innovation strategy with the following graph (Figure 1):

Verganti R. (2009) stresses that in order to understand the user needs it is necessary to introduce a new category called as "interpreters" – such as scientists, customers, suppliers, intermediaries, designers, or artists - who deeply understand and shape the markets they work in. The process of design-driven innovation therefore entails getting close to interpreters, which help understand

people needs and requirements of everyday life. Verganti R. (2009) has admitted that it leverages their ability to *understand* and *influence* how people could give meaning to things: "Firms that implement design-driven innovations are capable of detecting, attracting, and interacting with key interpreters better than their competitors".

Design innovation influencing factors

Theoretical material investigation by different sources has proved that the author for description innovation driven forces admits the below shown picture, which was designed by the Centre of Design innovation (UK). Brown T. (2005) said: "Where you innovate, how you innovate, and what you innovate are design problems". Multidisciplinary approach shows that innovation is driven by three forces: **business, technology, and people**:

- business investigates the viability of new products or services;
- technology explores the feasibility of new products or services;
- people judge the desirability and usability of new products or services.

Figure 2 shows that new innovation occurs at the intersections, for example, process innovation

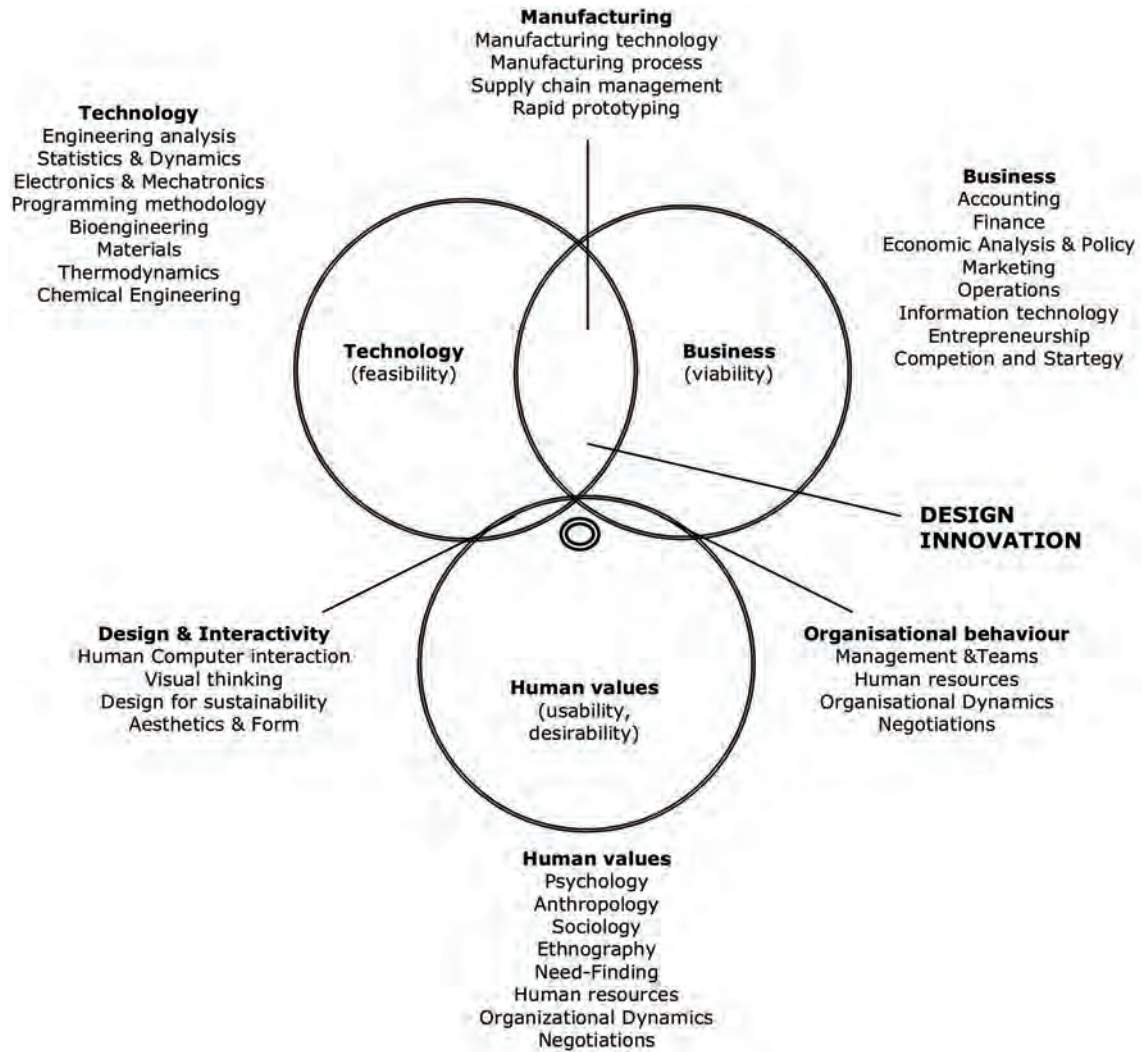


Figure 2. Venn diagram on Multidisciplinary approaches to design innovation from the Institute of Design at Stanford

might occur at the intersection of business and technological innovation. Functional innovation between technology and people creates the interfaces we use to interact with technology. Marketing innovation occurs between businesses and people, enabling branding and emotional connections. Also design innovation factors can be described with the following approach done by Amalnik M.S. (2005). They are level of change, speed of change, and scope of change. Liu G. and Gao X. (2009) identified that distributed innovation was influenced by location, technology, market, profit, resource, and environment factors.

Design driven innovation conditions and indicators

By evaluating the design driven innovation process in the context of business and economic development it is essential to reflect 3 main enabling conditions of design driven innovation. The research authors have completed Moultrie J., Livesey F.,

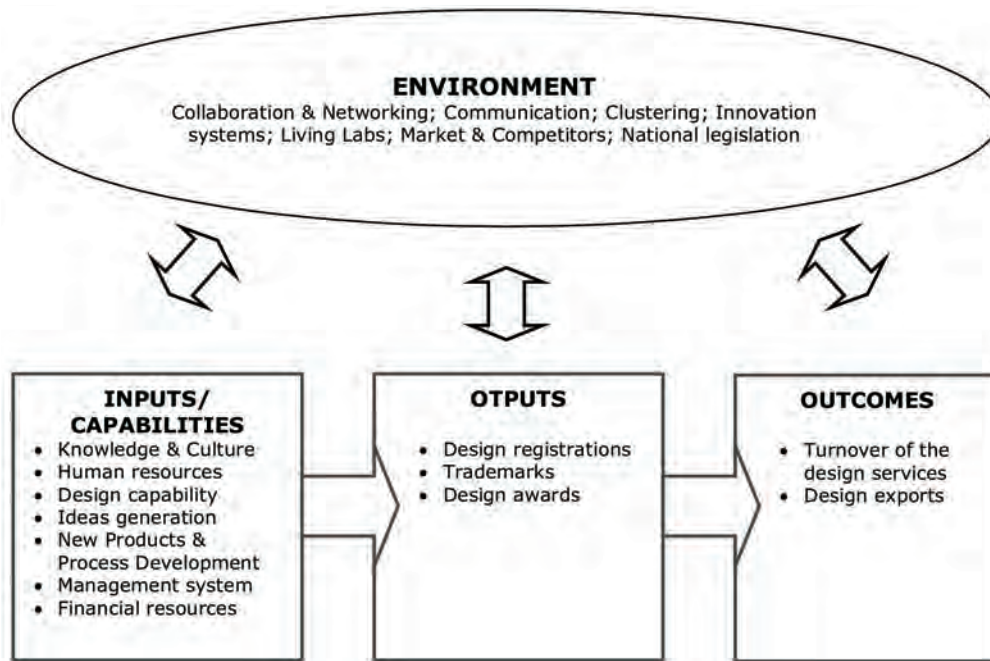
Malvido C., Riedel J., Beltagui A., Pawar K., Nixon B., Macbryde J., Martinez V., Demian P., Evans S. (2008) presented Enabling conditions figure with their own approach to the design driven innovation conditions and indicators (Figure 3):

The research has identified the place and sub-conditions of these enabling conditions (Figure 3):

Inputs: factors relating to long term strengths, such as Knowledge and Human resources; Employee availability; Design capability & Education; Existence of R&D; Research effort; Information for ideas; New ideas generation; Firm knowledge; Employment creativity; New product development processes; Technology compatibility; and Financial investments - company and outsource.

Outputs: the direct results of the input, investments from financial and human capital. Both provide indication on future economic activity; intellectual property and evidence of outputs.

Outcomes: the results of those outputs – quantitative measures, including exports and the growth of technology sector.



Source: made by the authors

Figure 3. Enabling conditions of design driven innovation

Environment: Corporate culture; Collaboration type; Available external services; Networking; Clustering and Living labs; Market – demand conditions, Customers experience, sales of products; Competitors; and National legislation and Innovation system.

business strategy, and strategic planning which provides a context for design.

The increasing rate of design-driven innovation also denotes a change in the corporate insights and the structure of new product development organisations in the industry (Olson et al., 1995). Hockerts K. and Morsing M. (2008) have analysed that in the process of finding the correct design, in several cases companies employ individuals with specialised skills and training to help build a bridge between theoretical ideas and the generation of the idea. Some companies have their own in-house expertise to develop the right design for the innovation, and they will not have the need for additional contributions. In other cases the

Design driven business strategy

Design strategy (by Wikipedia) is a discipline which helps firms determine what to make and do, why do it and how to innovate contextually, both immediately and over the long term. This process involves the interplay between design and business strategy forming a systematic approach integrating holistic-thinking, research methods used to inform

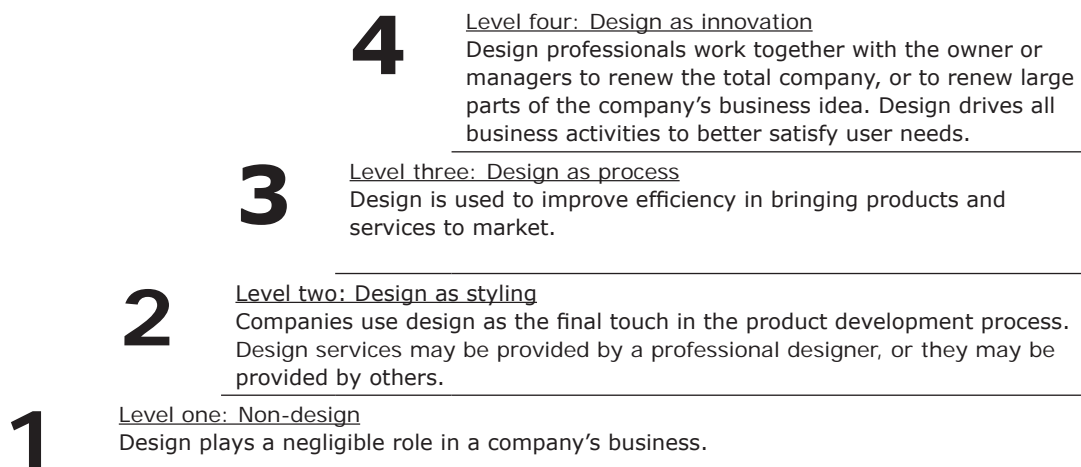


Figure 4. Climbing the design ladder

in-house expertise is missing, which makes it essential to consider which sources can provide the right expertise or in fact take over the modelling and design task. The considerations concerning the design process focus on where to locate the necessary capabilities for design, and how to make use of the resources available in the surrounding. The companies should aim to integrate design consistently and completely across the value chain, across all customer touch-points, and for all their stake-holders.

Several Danish, Irish, Swedish, and Latvian surveys on the economic effects of design use the design maturity scale or design ladder to establish the design maturity of companies. The design maturity scale developed by the Danish Design Centre has four levels (Figure 4).

Design maturity scale is a useful tool for measuring and comparing the use of professional design services for individual companies. It can also be used to measure the use of design in a sector or a region.

There is some empirical evidence that design intensity/input affects positively competitiveness and economic performance on different levels: country level – competitiveness, company level – expected sales growth, and market valuation.

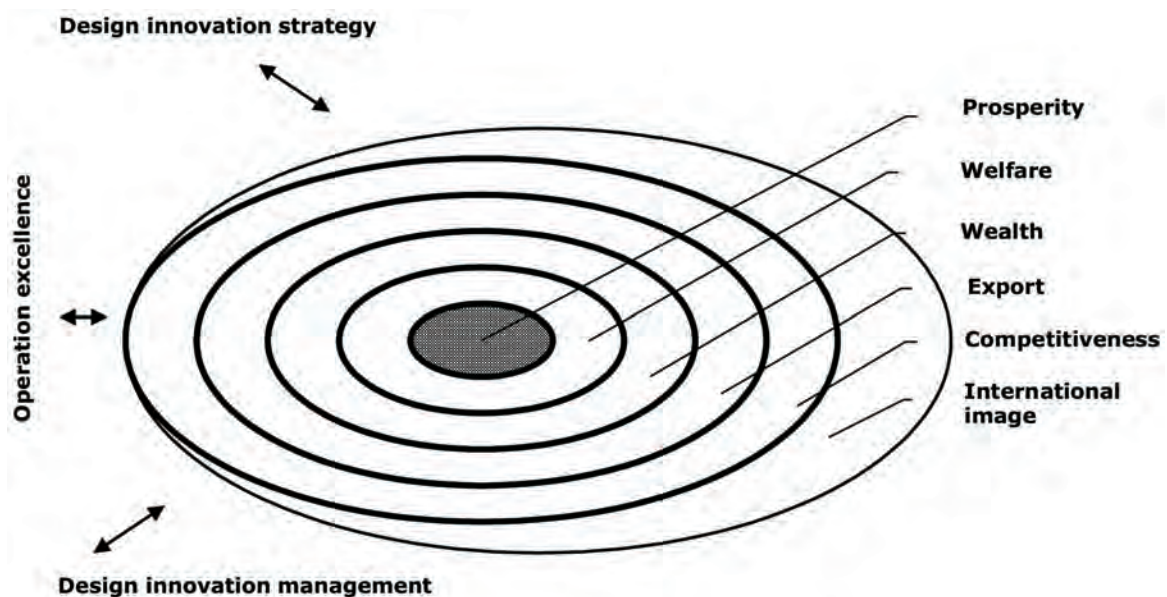
Design innovation implementation possibilities for business promotion in Latvia

Effective design is a part of the integrated product development and innovation process in which design can play an important role. Design innovation creates new products and services, and adds value to the existing ones in micro-economic terms. Design enhances the competitive capacity of

nations in macro-economic terms. The use of design innovation can improve competitiveness of Latvian business and industry by promoting Latvian products and services. Design innovation can also provide sustainable development of the national economy. The strategic vision of design innovations should lead to the highest objective – prosperity. The objective includes the hierarchy steps from lowest to highest – starting with international image, competitiveness, export, wealth, welfare, and the last – prosperity.

The creation of any step of strategic vision for business companies also in Latvia requires advancing design innovation strategy, management of design innovation, and operation excellence. Frey C. and Callahan R. H. (2008) during the global recession period admit the following action tasks: Start scenario planning now; Redouble your focus on customer needs; Strengthen the positioning of your products and services using marketing innovation; Prune your innovation portfolio; Look for opportunities to inexpensively test new ideas; Embrace open-source innovation; Look for creative ways to extend your current products; Take a fresh look at your supplier relationships; Conduct a disruptive threat (competitors) assessment; and Don't just think about innovation in terms of products, services, and business models. The theoretical research of different authors' case studies has proved that adequate design innovation strategy is part of business strategy. As Latvian businesses introduce relatively small number of design innovation products and services goods, there is a necessity to promote the motivation and interests to create added by design innovation.

However the design innovation implementation possibilities require holistic approach to motivation, knowledge and skills, and innovation policy. Based on



Source: made by the authors

Figure 5. Strategic vision of design innovations

user driven design innovation approach the authors have developed a structure of main key elements, which ensure implementation possibilities of design innovation.

Design innovation implementation possibilities in Latvia are based on 1) **Knowledge and capacity building measure** – Education and training (focus on multidisciplinary education and creative thinking); Research (focus on demand, users and design driven approach); Intellectual property management; Design toolkits (advanced IT technology use); Society awareness building (focus on sustainable development); 2) **Infrastructure improvements** (Technology use; Manufacturing processes; Availability of financial recourses; Prototyping); 3) **Promotion Networking** (Supply chain management; Clustering; Public-private partnerships; Living Labs approach); 4) **Sustainable Environment** (Political, Economic, Social situation, Market (competitors); Regulatory base; Open innovation). These influencing factors of design innovation in Latvia are the key elements for promotion of innovations through design. However the characterisation of concrete actions and activities of these key elements requires further investigations and research.

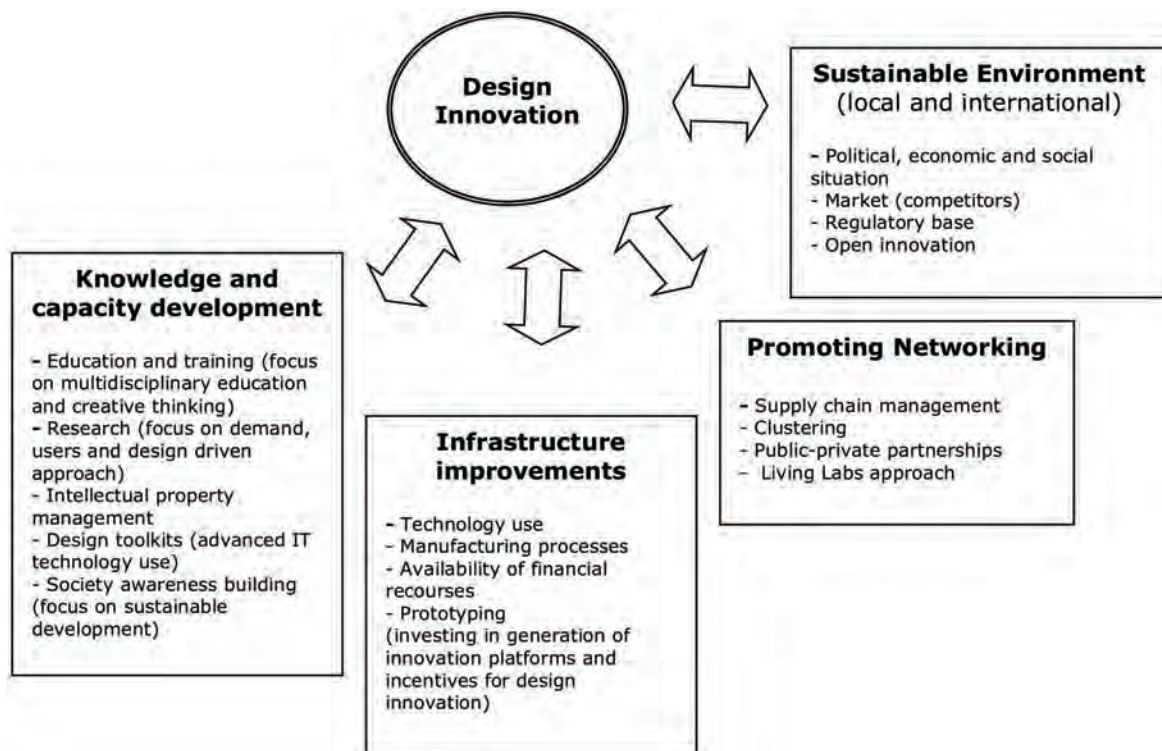
The research authors in order to promote design driven innovation in Latvia also suggest Living Labs approach. The notion "Living Labs", which is an open innovation environment in real-life settings in which user-driven innovation is the co-creation process for new services, products, and societal infrastructures.

The Living Labs model includes end-user participation from an early stage of the creative process of technology development. Living labs are a valuable new tool for boosting innovation in the regional context by involving many actors in the innovation process and enhancing the quality and efficiency of innovation processes in an early stage of innovation. Living Labs engage different types of actors into the same process and their management requires new skills and competences (e.g. user-driven innovation processes, usability, human technology, interaction, facilitation instead of controlling, and facing new type of people).

The basic requirements for successful design innovation suppose will be ensured by using Living Labs approach.

Conclusions

1. Special economic literature introduces different authors' definitions and role of design innovations. Design as a tool for innovation has developed rapidly in recent years, resulting notably in concepts such as strategic design, design management, and design thinking. The significance of design innovations was proved by investigating design innovation case studies in different countries.
2. For characterising the influencing factors of innovative design the authors have used multidisciplinary approach, that innovation is driven by three forces: **business, technology and people**:



Source: made by the authors

Figure 6. Key elements of design driven innovations

- business investigates the viability of new products or services;
 - technology explores the feasibility of new products or services;
 - people judge the desirability and usability of new products or services.
3. Based on user driven design innovation approach the structure of main key elements, which ensure implementation possibilities of design innovation, includes Knowledge and capacity building measure; Infrastructure improvements; Promotion Networking; and Sustainable Environment.
 4. The sustainable and compatible development of the national economy of Latvia requires multidisciplinary approach to design innovation by first creating national design innovation policy and supporting mechanisms, development of design innovation indicator system, and promoting research on investigations.
 5. The characterisation of concrete actions and activities, which should be implemented in Latvia for the development of innovations through design, requires further detailed research and investigations by the authors.

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Methodological Aspects for Estimation of the Nation's Competitiveness

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Abstract. The aim of this paper is to provide a critical assessment of the international competitiveness indicators, to improve Latvia's competitiveness estimation, and to provide fair advice to policymakers. The author summarises the ongoing debate on the concept of competitiveness through the key dimensions and measurements of competitiveness, and then presents the major competitiveness indicators. The second and third section of the paper explores some examples of competitiveness indicators and provides their evaluation. The fourth section takes a closer look at Latvia's competitiveness evaluation results in the Global Competitiveness Report for 2009-2010 and Latvia's government reaction. The last section summarises the research results and provides conclusions and policy implications.

The author argues that despite the foregoing shortness the international ratings enable the states and governments see the internal problems of their countries in a global context in comparison both with situations in the neighbouring countries and other regions of the entire world. The international ratings are valuable supplements to the traditional statistics. By evaluating indexes of dynamics for competitiveness the government can detect both the system's problems of the national economy and problems related to temporary difficulties. For the Baltic States it is highly advisable to develop their own ratings, estimating the competitiveness of countries in the region. As a result it will decrease the volume of estimated information and accelerate the period of preparing a rating and provide for more frequent periodicity of publication of ratings, thus enabling the regional governments to respond to the positive or negative shifts of competitiveness of their national economies.

Key words: competitiveness, competitiveness index, determinants of competitiveness.

Introduction

The nation's competitiveness is a category that can be hardly characterised by a single definition. At present the economic literature lacks clear, generally accepted formulation of a concept of the nation's competitiveness or competitiveness of the national economy. The modern estimates of the nation's competitiveness to all intents and purposes are consistent with the theory by M. Porter who has marked the beginning for the development of a theory on competitiveness.

World Economic Forum Global Competitiveness Report defines the competitiveness of a nation as *"the set of institutions, policies, and factors that determine the level of productivity of a country"* (The World Economic Forum, 2009).

The Organisation for Economic Cooperation and Development defines the competitiveness of a nation as *the ability of companies, industries, regions and nations or supra-national regions to generate, while being and remaining exposed to international competition, relatively high factor income and factor employment levels on a sustainable basis* (OECD, 1992).

The Commission of the European Communities states that *"Competitiveness refers to the overall economic performance of a nation measured in terms of its ability to provide its citizens with growing living standards on a sustainable basis and broad access for jobs to those willing to work"* (Commission of the European Communities, 2009).

World Competitiveness Centre in the World Competitiveness Yearbook (WCY) has based on

the academic definition of competitiveness – *"Competitiveness of Nations is a field of economic theory, which analyses the facts and policies that shape the ability of a nation to create and maintain an environment that sustains more value creation for its enterprises and more prosperity for its people"* and on the one-liner definition *"Competitiveness is how a nation manages the totality of its resources and competencies to increase the prosperity of its people"* (The World Competitiveness Centre, 2009).

Karl Aiginger in his paper "Competitiveness: From a Dangerous Obsession to a Welfare Creating Ability with Positive Externalities" outlines 22 definitions of competitiveness from various sources for a period of time from 1971 to 2004 (Aiginger K., 2006).

In the opinion of the best part of leading world experts the new challenges governments are facing in a period of globalisation, knowledge and the long lasting technological revolution make them integrate the concept of competitiveness and practice of its monitoring on a day-to-day basis of government activity. If the dynamics of competitiveness is negative according to the monitoring data or there are some indications of deterioration in competitiveness, it should trigger immediate reaction from the government and create a new strategy on further development.

In the process of strategy design for the state, taking a decision the governments should have a clear understanding of what is needed for "their own advance". The state of the economy, our strengths and weaknesses, obstacles for economic development at a particular moment, ways of

overcoming them and what changes are essential for pursuing a goal formulated by the government. Answers to these questions are not always simple and clear. The estimation of competitiveness and its monitoring contribute to responding them. In this regard comparison of economic situation of a certain country with the leading countries (in similar or other markets, in similar or other sectors of industry) provide for essential indicators both for business and the government, and show the direction of development.

The aim of this paper is to provide a critical assessment of the international competitiveness indicators, to improve Latvia's competitiveness estimation, and to provide fair advice to policymakers.

Research tasks: 1) to summarise the ongoing debate on the concept of competitiveness; 2) to present the major competitiveness indicators and evaluates them; 3) to take a closer look at Latvia's competitiveness evaluation results in the Global Competitiveness Report 2009-2010 and Latvia's government reaction; 4) to show and prove the necessity of the system approach to the nation competitiveness estimation.

Methods of research. The international indexes and ratings data in the field of nation competitiveness were used in the research as well as the method of comparative analysis.

Results and discussion

1. Determination of competitiveness

The competitiveness of any subject in the competitive market is determined by its available resources, effectiveness of its activities and success of the chosen strategy. Similarly all diversity of factors of the nation's competitiveness can be narrowed down to three key factors: factors of resources, factors of effectiveness of activities, and the strategy factors (related with the economic policy of the country). The resource factors of competitiveness – assets, created by the nature, by the state's population or inherited from previous generations: a territory of the country, its geographical location, climatic conditions, access to the ice-free sea water areas, mineral resources and other natural resources; industry and infrastructure: roads, bridges, facilities and installations.

The factors of competitiveness of activities indicate the use of the country's potential of resources. They are the traditional indicators, e.g. productivity of labour (GDP per capita) and the specific labour compensation; dynamics of the national currency exchange rate against the currencies of major countries of the world; volume of exports and imports against the GDP; the country's position of trading and foreign balances; inflation rate; unemployment rate and others.

The country's competitiveness was determined applying the foregoing factors of competitiveness (resources and factors of effectiveness) in the theories of competitive advantages (overall and comparative) a hundred years ago. At present it is not enough to

estimate the country's competitiveness just by its resources and factors of effectiveness since they do not reflect such an important component of a concept of competitiveness as the living standard of population. And even with enclosure of such a generalisable characteristic of the country's competitiveness as the volume of GDP per capita, on the conditions of modern economy one cannot speak of overall estimation of the country's competitiveness.

The nation's competitiveness – during the past 20 years more and more is drawn to "soft estimation". In order to estimate competitiveness based on knowledge on the conditions of the new economy the "soft" infrastructure moves to the foreground:

- development of favourable business and economic environment;
- level of technologies and volume of investments in science and innovative technologies;
- quality of innovative systems;
- optimisation of institutional and social environments;
- generation, preservation, distribution, and transfer of knowledge;
- volume of investments in human capital assets;
- social and service infrastructure (education, public health care and the surrounding environment);
- effectiveness for utilisation of human capital assets, etc.

Due to these approaches to the problem of the country's competitiveness evolved from the estimation of the country's economic activities by comparison of costs, prices and factors of production with the characteristic analysis of overall political and social basis, forming the economy of a country in its entirety. At present the country's competitiveness is determined and estimated according to a range of factors distinguished by their grouping or the weight characteristics of their indicators, and the comprehensive integral methods or "rating" methods of estimation are considered as the most popular ones.

2. Rating methods for estimation of competitiveness

The first international ratings were issued with a purpose of assessment of ability for the government to discharge the taken loans. They also served as indicators for attracting investments from the foreign investors. In the course of further development ratings included more and more characteristics of the estimated countries so that the investors and international credit institutions had a complete picture of the situation in the country where they invested their funds.

The international ratings consist of results from original methodological developments of the rating organisation. For the purpose of discussion it is possible to outline several types of information employed in development of ratings:

- statistical information – usually these are data obtained from the local agencies of statistics and international organisations;

- legal information – information from official sources on existence (or absence) of specific laws and legislative regulations;
- survey data – results of opinion polls;
- expert evaluation – the opinion of national experts.

The following international ratings characterise one or another aspect of the nation's competitiveness:

- Global Competitiveness Index by the World Economic Forum;
- The World Competitiveness Scoreboard by the Institute for Management Development;
- The Worldwide Governance Indicators by the World Bank;
- Index of Economic Freedom by the Heritage Foundation;
- Knowledge Economy Index by the World Bank;
- Doing Business by the World Bank.

The methodology used to calculate national competitiveness indicators are different, but the indicators are generally organised around the same key pillars (also called drivers or factors depending on the organisation computing the indicators): institution, infrastructure, macroeconomics, demography (including health issues), physical and environmental regeneration, education, competition, markets efficiency, prevention of risks, business environment, research and technological development, renewable energy, information society, and innovation.

2.1. The Global Competitiveness Index

The World Economic Forum has based its competitiveness analysis on the Global Competitiveness Index (GCI), which captures the microeconomic and macroeconomic foundations of national competitiveness.

The GCI is made up of over 90 variables (organised into 12 pillars: Institutions, Infrastructure, Macroeconomic stability, Health and primary education, Higher education and training, Goods market efficiency, Labour market efficiency, Financial market sophistication, Technological readiness, Market size, Business sophistication, and Innovation).

These pillars are grouped into three sub-indexes:

- basic requirements (institutions, infrastructure, Macroeconomic stability, Health and primary education);
- efficiency enhancers (Higher education and training, Goods market efficiency, Labour market efficiency, Financial market sophistication, Technological readiness, Market size);
- innovation and sophistication factors (business sophistication and innovation).

The concept of stages of development is integrated into the Index by attributing higher relative weights to those pillars that are relatively more relevant for a country given its particular stage of development. That is, although all 12 pillars matter to a certain extent for all countries, the relative importance of each one depends on a country's particular stage of development. To take this into account, the pillars

are organised into three sub-indexes, each critical to a particular stage of development.

The basic requirements sub-index groups comprise pillars most critical for countries in the factor-driven stage. The efficiency enhancers' sub-index includes those pillars critical for countries in the efficiency-driven stage. And the innovation and sophistication factors sub-index includes the pillars critical for countries in the innovation-driven stage. Countries are allocated the stages of development based on two criteria. The first criterion is the level of GDP per capita at market exchange rates. The second criterion measures the extent to which countries are factor driven - the share of exports of mineral goods in total exports (assume that countries exporting more than 70% of mineral products (measured using a five-year average) are to a large extent factor driven).

The World Economic Forum draws its data from two sources: two thirds come from the Executive Opinion Survey, and one third comes from hard data publicly available. The Executive Opinion Survey has achieved in 2009 a record sample of over 13 000 surveys from 133 countries between January and May 2009. This represents an average of 95 respondents per country.

2.2. IMD Competitiveness Index

The World Competitiveness Yearbook (WCY) published annually by the International Institute for Management Development (IMD) since 1989 aims to provide objective benchmarking and trends of the competitiveness of key economies. The WCY Competitiveness Index analyses the ability of nations to create and maintain an environment that sustains the competitiveness of the enterprises through twenty pillars grouped in four sub-indexes:

- economic performance (domestic economy, international trade, international investment, employment, and prices);
- government's efficiency (public finance, fiscal policy, institutional framework, business legislation and societal framework);
- business efficiency (productivity, labour market, finance, management practices, and attitudes and values);
- infrastructure (basic infrastructure, technological infrastructure, scientific infrastructure, health and environment, and education).

Unlike the Global Competitive Report of the WEF the WCY Competitiveness Index is made up of over two-third of hard data (126 variables from international, national, and regional organisations) and one-third of survey data (113 variables from an annual Executive Opinion Survey).

2.3. Doing Business

One of the best-attested sources on the quality of business environment is a report by the International bank "Doing Business". This report was published for the first time in 2003 and it covered 5 sets of indicators in 133 countries. In 2009 the report covered already 10 sets of indicators on the national economy of 183 countries. The indicators of *Doing*

Business provide the quantitative ratings of such indicators as the ease of organisation, starting and closing of business, receiving the construction permit, registration of property, receiving a loan, hiring and discharge of manpower, protection of investors, applicable taxes, etc. The essential precondition of Doing Business is that the entrepreneurial activities require good regulations. This concept includes regulations establishing ownership and reduces expenditure for dispute settlements; regulations that increase predictability of economic cooperation and regulations that provide partners some protection against abuse.

2.4. The European Competitiveness Report

For the programming period of 2007-2013, the EU Commission has proposed some core indicators to monitor convergence, competitiveness and employment objectives as indicative guideline (IG):

- Competitiveness (entrepreneurship, new technology);
- Direct investment aid to Small and Medium Enterprise (number of start-ups supported, jobs created, investment induced);
- Transport (kilometre of new roads, value of timesaving in EUR/year stemming from new and reconstructed roads for passengers and freights, and others);
- Renewable energy (additional capacity of renewable energy production);
- Environment (additional population served by water projects, additional population served by waste water projects, number of waste projects, number of projects on improvement of air quality, area rehabilitated) and climate change (reduction greenhouse emissions);
- Education (number of benefiting students) and health;
- Information society (number of population covered by broadband access);
- Research, technological development (number of cooperation projects enterprises-research institutes, research jobs created);
- Physical and environmental regeneration (number of projects ensuring sustainability and improving the attractiveness of towns and cities);
- Social inclusion (services to promote equal opportunities and social inclusion for minorities and young people) (European Commission, 2006).

The Commission of the European Communities produces on a regular basis the European Competitiveness Report 2009 about the EU countries to compare the countries with one another and determine their level of development and competitiveness. The country fiches in the European Competitiveness Report present the performance of each Member State in the policy areas covered by the microeconomic pillar of the Strategy for Growth and Jobs (the Lisbon Agenda). The EU average is given as a benchmark. Providing a common framework for all EU member states, the integrated guidelines for growth and jobs specify the overarching objectives

to be pursued in each policy area. The main policies constituting the microeconomic pillar are: research, innovation, encouraging investments in ICT, industry, internal market, competition, encouraging the sustainable use of resources, and the synergies between environmental protection and growth, creating a more attractive business environment, promoting entrepreneurship, and expanding infrastructure.

3. Advantages and disadvantages of rating estimations of competitiveness

Ratings are based not only on statistic and factual information but also on expert evaluations and survey data. Precisely the essential role of human factor in expert evaluations (e.g. in GCI two thirds of data come from the Executive Opinion Survey) is criticised most of all by the countries that are not satisfied with their low ratings. Similarly the subjective influence is related with the weight (importance of factors) assigned in the process of estimation. In addition the frequently estimated indexes appear in a very tight numeric range and their changes for as little as hundredth considerably change the position of a country in the rating of competitiveness. As a result various ratings of competitiveness of one or another country are estimated differently.

Similarly the resulting position in the rating for the evaluated country can change not only with improvement and deterioration in the business, political and social environment in the said country but also oscillation of ratings in other countries, the change of the number of rated countries for the current year as well as any changes in the methodology of evaluation of integral estimation of ratings.

The government's ability of decision-making on the basis of international ratings is hardly possible because ratings are based on information with time displacement for a period of at least one year (data with time displacement for a period of 1-2 years) and provide no operational evaluation of the current situation. Due to the aforesaid for some definite countries and regions, such as the region of the Baltic Sea, it is highly advisable to develop their own ratings, estimating the competitiveness of countries in the region. As a result it will decrease the volume of estimated information and accelerate the period of preparing a rating and provide for more frequent periodicity of publication of ratings (e.g. once a quarter instead of once a year as it is with the majority of international ratings) and enabling the regional governments respond to the positive or negative shifts of competitiveness of their national economies.

A disadvantage of some ratings is the presentation of information in a form that is improper for end users. For instance, in order to evaluate the competitiveness positions of the education systems in the Baltic States it is not easy to the rating of *Knowledge Assessment Methodology (KAM)*, because it does not distinguish the European Union countries as a separate group of countries. One part of the European Union countries are included in the group of Western European countries but others in the group of

European and Central Asia countries. Similarly according to the groups of income the European Union countries are divided into the following groups "Above average level", "Below average level" and "High level". The methodology employs comparison of a country with a specific group of countries where it belongs to and depending on the results the scale of rating is developed. As a result, e.g. enclosure of Estonia in the group of countries of "High level" of income in comparison with Latvia and Lithuania that are enclosed in the group of "Above average level" is not correct. The number of estimated countries is limited to 20 countries, and it causes certain difficulties in analysis of the European Union countries, since there are 27 countries in it (The World Bank, 2009).

Figure 1 presents here is a snapshot picture of the competitiveness profile of Latvia in the *European Competitiveness Report 2009* (Commission of the European Communities, 2009). Due to the lack of graphic presentation of information in the *European Competitiveness Report* (the *European Competitiveness Report* contains no up-to-date interactive presentation of the report's results in databases in the Internet network), it is impossible to follow the dynamics of one or another component of competitiveness in time, and it deteriorates the value competitiveness analysis.

Despite the foregoing shortness the international ratings enable the states and governments see the internal problems of their countries in a global context in comparison both with situations in the neighbouring countries and other regions of the entire world.

Evaluating indexes of dynamics for competitiveness the government can detect both the system's problems of the national economy and problems related to temporary difficulties. A temporary decreasing of rating serve as an indication that some negative processes can be seen in a specific sector but it does not necessarily mean that there are some serious difficulties and can also mean that "the rated neighbours" have achieved some success in this sector or it can be influenced by the human factor conducting surveys and observations. Long lasting, systemic problems of the national economy are indicated by a steady low rating on a specific sector.

Special considerations from governments deserve situations when the country's ratings are decreased. For instance, the position of the Baltic States has considerably decreased according to the rating by the GCI for a period of five years from 2005 to 2009. Estonia came down by 19 positions (from the 16th in 2005 to the 35th in 2009), Lithuania by 19 positions (from the 34th in 2005 to the 53rd in 2009), while Latvia rolled down by 29 positions (from the 39th position in 2005 to the 68th position in 2009) (The World Economic Forum, 2009). It is very likely that if the governments of the Baltic States more seriously approached the estimations by experts of the *World Economic Forum* in relation to achievements of their national economies, they might see the decrease of their ratings as a signal

of alarm given by the international community and by adequate response to them they might be able to avoid the catastrophic influence of the world's crises on the economies of these countries.

The position of some countries or the change of position in ratings can seem to be much unexpected and caused a full-scale discussion, as it was in the case of the GCI 2009-2010 where the permanent position of the first place for the United States of America came down for one position. The authors of the *Global Competitiveness Report 2009-2010* moved the USA to the second position. Naturally it raised many questions for the international community but the experts of the *World Economic Forum* explained it as an effect of weakening of the financial market and decrease of macro economic stability (Sala-i-Martin X., 2009).

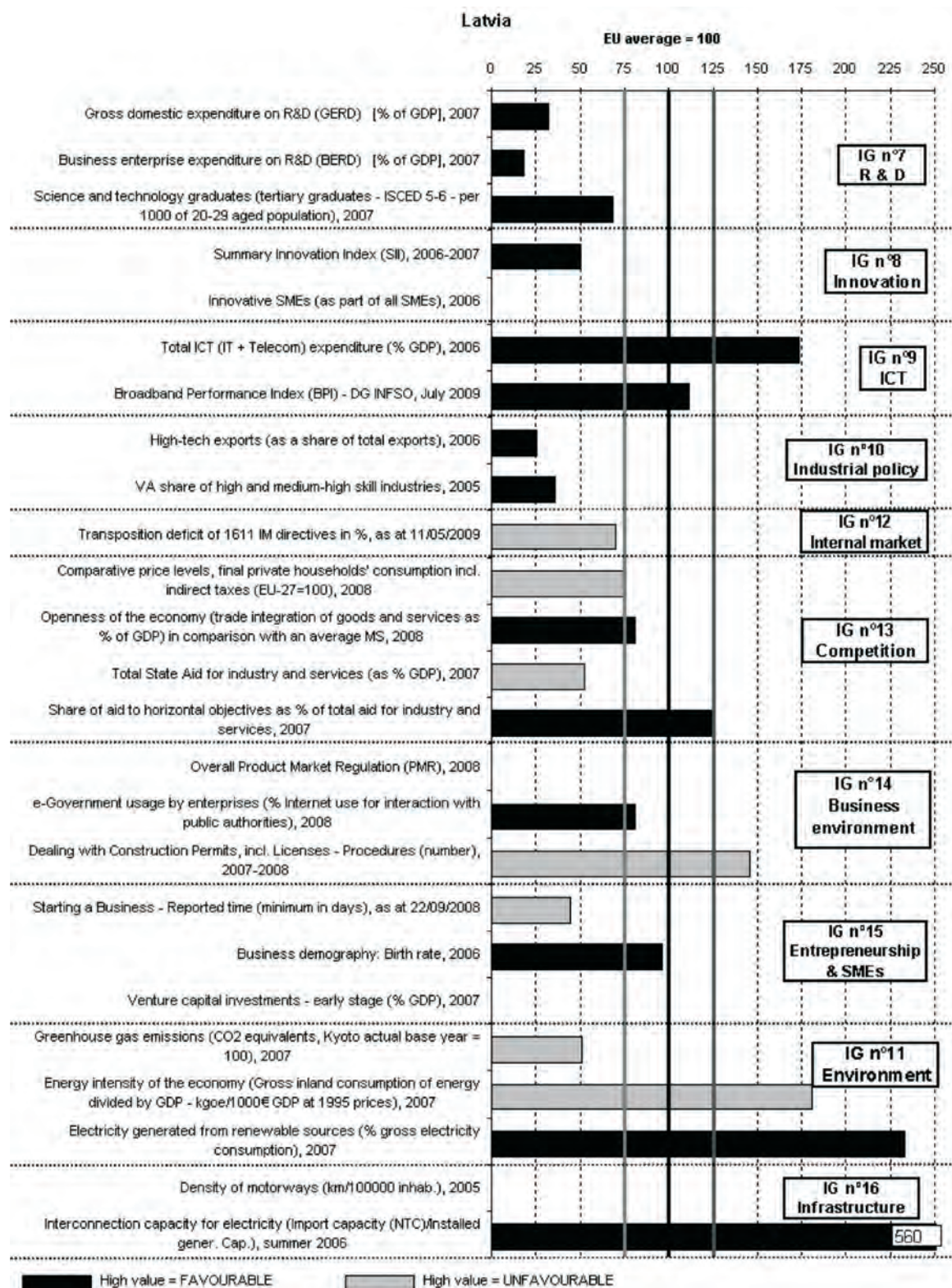
The absolute value of a rating is an important indicator for the international investors; however the dynamics of a rating is much more informative – to evaluate the growth of the country's indicators of competitiveness in a period of time.

By implementing measures to improve the country's position in the international rating, the government gives honour to both the international community and the opinion of national experts, politicians, entrepreneurs, managers, and people who participated in the survey pools needed to obtain data for the specific rating. It contributes to the establishment of good communication between the business and government, and sooner or later it will reflect in the positive dynamics of its rating.

The leading economists of the Ministry of Economics of the Republic of Latvia believe that the change of Latvia's position in the international rating of competitiveness of the world's countries to a great extent is related to distrust and incredulity towards the state administration, judiciary and its justice among the entrepreneurs (LR Ekonomikas ministrija, 2009). One has to agree with this statement. However, it can lead to an endless circle: the questioned entrepreneurs come up with their vision on the economic situation and it is considered in the international ratings, the government does not respond to these ratings, providing their explanation of it as "the human factor and excessive criticism of government", the entrepreneurs see no reaction to their views, thus it increases distrust and in turn it is included in the expressed evaluations of surveys and the circle continues.

The evaluation of ratings is not a doctrine, to a greater extent they should initiate discussions on the matters of economic, strategic policy for development of the national economy to meet the stated objectives for a nation – to increase the level of employment and income, maintaining the economic growth, and strengthening of competitiveness.

Experts of the Ministry of Economics in their "Informative Report on the Directions of Policy for the Recovery of Economics in a Period of Medium Term" indicate that in Latvia similarly to other countries there are several problems related to the survey process of enterprises and generalisation of information, for instance, the circle of the questioned enterprises does

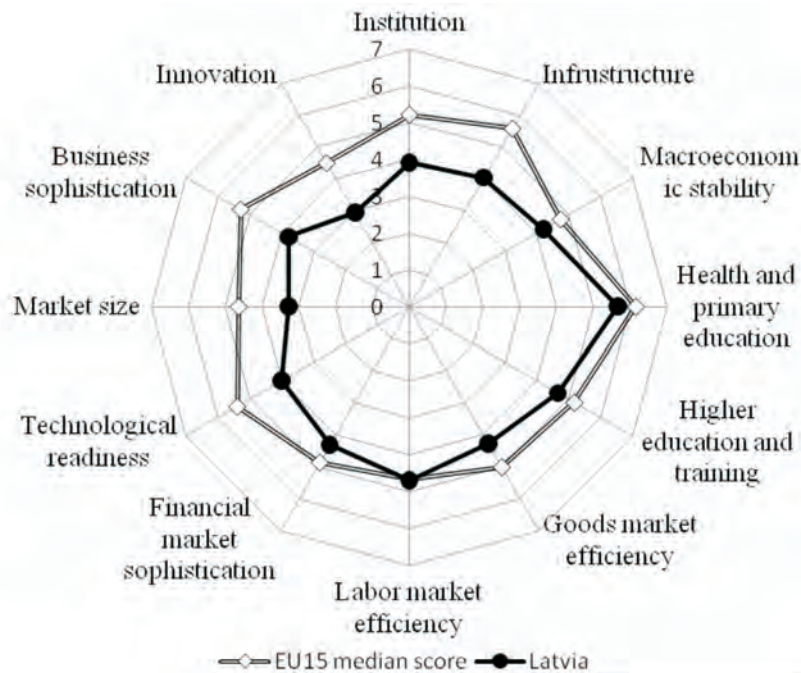


Source: European Competitiveness Report. 2009

Figure 1. The competitiveness profile of Latvia (EU 27 = 100)

not correspond to the circle of questioned enterprises for the previous year, no statistic methods are applied during the selection of entrepreneurs, i.e.

they do not include all entrepreneurs according to their size and sectors, the results of surveys cannot be compared correctly with other countries because



Source: GCI 2009-2010

Figure 2. Latvia's competitiveness pillars

there is no single methodology for these surveys (LR Ekonomikas ministrija, 2009).

Casting no doubt on the competences of employees of the Ministry of Economics of the Republic of Latvia it is necessary to admit that the Global Competitive Report of the WEF published by a respectable academic press (Oxford University press) and masterminded by eminent academics such as Jeffrey Sachs, Michael Porter, and Xavier Sala-i-Martin, the evaluation of such a complex category as the national competitiveness is impossible without the given surveys. The human factors of evaluation will be present at all ratings, since the evaluation of a range of indicators of the national competitiveness related with its "soft" measurement cannot be obtained without them.

The international ratings are valuable supplements to the traditional statistics.

4. Competitiveness of Latvia

The competitiveness of Latvia has gradually decreased according to the estimates by the GCI in the period between 2005 and 2009. During this period of time Latvia rolled down by 29 positions (from the 39th position in 2005 to the 68th position in 2009).

The macroeconomic stability indicated the greatest regress for Latvia – 28 positions. In Quarter 2, 2009 Latvia's net external debt is LVL 8.5 billion (56.6% of GDP in Quarter 1 and 56.7% of GDP in Quarter 2, 2009) (Bank of Latvia, 2009).

The evaluation of indicative factors (pillars) of competitiveness for Latvia in comparison with

the countries of the EU-15 according to the data provided by the GCI 2009-2010 is displayed in Figure 2. The higher evaluation and respectively larger distance from the centre, the better is the state's position in the specific sector of competitiveness.

According to the following pillars – "Institution", "Infrastructure", "Technological readiness", "Market size", "Business sophistication" and "Innovation" Latvia falls behind the countries of the Euro area (the EU-15) most of all.

The poor estimations of quality for institutions in Latvia can be accounted for first of all by the inefficiency of the government's activities. The institutional environment of Latvia continues to be ranked among the worst of the Baltic States, with high levels of corruption (ranked the 97th of all 133 countries), wastefulness of government spending (the 105th), basic government inefficiency (the 94th) as well as a complete absence of public trust of politicians (ranked the 102nd).

Insufficient investments in infrastructure, and research and development account for lagging according to such indicators of competitiveness as "Infrastructure", "Technological readiness" and "Innovation". Latvia is characteristic for the small volume of its domestic market and unfortunately it does not make use of the potential of its convenient geographical location – as a member country of the EU, its closeness to the Nordic countries and the capacious Eastern market. During the period of 11 months of 2009 Latvia's export formed only 47% of the export volume of Lithuania and 82% of the export volume of Estonia (Eurostat, 2010).

Experts from the Ministry of Economics in their "Informative Report on the Directions of Policy for the Recovery of Economics in a Period of Medium Term" indicate that according to the estimates of main conditions for competitiveness Latvia is ranked in the 60th position. On the whole it is a relatively high position. As far as it said about the sub-index of "Basic Requirements" containing such pillars as "Institution", "Infrastructure", "Macroeconomic stability" and "Health and primary education". Keeping in mind that Mexico is in the 59th position, Algeria is the 61st, Costa Rica is in the 62nd position and Botswana is the 63rd, etc., the author cannot agree to the statement that "on the whole it is a relatively high position", requiring no decisive action from the government since the result is not bad at all. Much more adequate response to the results of the sub-index "Basic requirements" from the government of the Republic of Latvia the following questions should arise: "Why Estonia is in the 34th position while Latvia is in the 60th position? Why such lagging was permitted? What should be done to get over it?"

It is the author's opinion that the government of Latvia should establish the Council of Competitiveness consisting of representatives from the government of the Republic of Latvia, scientists and experts, entrepreneurs, managers and representatives of non-governmental organisations. Latvia requires a detailed analysis of competitiveness, and the development of a strategy to increase its competitiveness, clear formulation of objectives and monitoring of their implementation.

Conclusion

Approaches to the problem of the country's competitiveness have evolved from the estimation of the country's economic activities by comparison of costs, prices and factors of production with the characteristic analysis of overall political and social basis, forming the economy of a country in its entirety. At present the country's competitiveness is determined and estimated according to a range of factors distinguished by their grouping or the weight characteristics of their indicators. In order to estimate competitiveness based on knowledge on the conditions of the new economy the "soft" infrastructure moves to the foreground. The comprehensive integral methods or "rating" methods of estimation are considered as the most popular ones.

Ratings are based not only on statistic and factual information but also on expert evaluations and survey data. Precisely the essential role of human factor in expert evaluations is criticised most of all by the countries that are not satisfied with their low ratings. The government's ability of decision-making on the basis of international ratings is hardly possible because ratings are based on information with time displacement for a period of at least one year and provide no operational evaluation of the current situation. The frequently estimated indexes appear in a very tight numeric range and their changes for as little as hundredth

considerably change the position of country in the rating of competitiveness. As a result various ratings of competitiveness of one or another country are estimated differently.

Despite the foregoing shortness the international ratings enable the states and governments see the internal problems of their countries in a global context in comparison both with situations in the neighbouring countries and other regions of the entire world. The international ratings are valuable supplements to the traditional statistics. By evaluation of indexes of dynamics for competitiveness the government can detect both the system's problems of the national economy and problems related to temporary difficulties. A temporary decreasing of rating serve as an indication that some negative processes can be seen in a specific sector but it does not necessarily mean that there are some serious difficulties. Besides it can also mean that "the rated neighbours" have achieved some success in this sector or it can be influenced by the human factor conducting surveys and observations. Long lasting, systemic problems of the national economy are indicated by a steady low rating of a specific sector.

For the Baltic States it is highly advisable to develop their own ratings, estimating the competitiveness of countries in the region. As a result it will decrease the volume of estimated information and accelerate the period of preparing a rating and provide for more frequent periodicity of publication of ratings (e.g. once a quarter instead of once a year as it is with the majority of international ratings) and enabling the regional governments respond to the positive or negative shifts of competitiveness of their national economies.

It is the author's opinion that the government of Latvia should establish the Council of Competitiveness consisting of representatives from the government of the Republic of Latvia, scientists and experts, entrepreneurs, managers and representatives of non-governmental organisations. Latvia requires a detailed analysis of competitiveness, and the development of a strategy to increase its competitiveness, clear formulation of objectives and monitoring of their implementation.

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Growth of Ecological Production as a Factor Influencing Social and Economic Development of Rural Regions in Poland

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Abstract. The ecological farming positively influences the natural environment. This results in wide understood rural and environment benefits. Economic and social changes can be observed due to the implementation of the characteristic rules in farming. The aim of the paper is to present causal-consecutive dependences happening between the development of rural regions and the number of companies as well as the volume of production. The research is based on economic and social data of 10 regions, with the observed continuous growth of ecological farms (and companies processing ecological products) and the dominance of 13 regions of dominating traditional farming. The data cover the period of 2000-2009.

Key words: ecological production, development of rural regions, causal-consecutive analysis.

Introduction

Hard socio-economic situation of Polish villages observed since 1989 requires undertaking of different initiatives and decisions. It could help overtake or soften the current difficulties. Unfortunately such process cannot be observed everywhere. In the majority of village regions people suffer from apathy and stagnancy due to the huge range of poorness. Poor people, who do not believe in the change of life, need to be pushed into the chain of change process in neighbourhood. It may be done only in a natural way, for example, by encouraging them to participate in mini economic activities.

Functions set to farmers and farming in Poland should be based on valuing rural areas despite some choices or political pushes. It should allow recognising both the production possibilities from the farming side and multifunctional development (Rolnictwo, 2005).

One of the ways directed towards the increase of socio-economic measurement in Polish villages can be a dynamical growth of ecological farming and related processing industry. This form "activating not active" is clear for rural people and it allows fast solution of some of the most important problems, for example, finding work, stopping migration from a village, creating social stabilisation in the future. Finding work in ecological processing has also a psychological aspect. It allows the village people to increase their self-confidence. It will create a wish to increase qualification and active participation in social and economic processes in the near neighbourhood.

The main aim of this paper is to present the cause-result relations created between the development of rural areas and the number of companies including the scope of ecological production. Additional task is to present that the growth of ecological farms is adjustable to the EU programme of stabilised growth of rural areas.

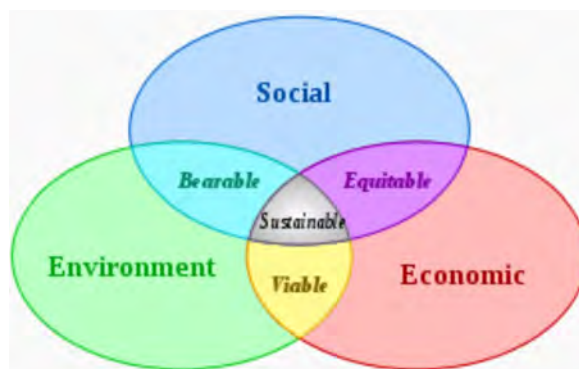
The research is based on economic and social data of 10 regions, with the observed continuous growth of ecological farms (and companies processing ecological products) and the dominance of 13 regions of dominating traditional farming. The data cover the period of 2000-2009.

Sustainable development of rural areas

Sustainable development (the so-called **eco-growth**) is a doctrine of political economy and it describes the quality of life on the level allowing growth of civilisation opposite to the "iron Malthus economy rule". The very important and often forgotten information contains the data from WCED report of 1987 "Our Common Future" (the so-called Brundtland Report-derived from the name of a committee leader, Gro Harlem Brundtland): "A balanced growth is possible on the current civilisation level. The needs of current generation can be fulfilled without decreasing chances of the future generation to fulfil their needs".

Sustainable development means that the economic growth leads to increasing social cohesion (decreasing social differences, equalling the chances, anti discrimination) and increasing the quality of natural environment by limiting the bad influence of production and consumption on the natural environment and protection of natural resources (Kozłowski S., 2002 and 2007).

Ecological production may serve as a chance for the economic and social growth of all regions. It can be done by elimination of small, non specialised Polish farms. In the future it can be expected that a national demand on ecological products called "products of ecological farming" will appear with the growth of affluence of the society; thus strengthening the position of ecological farms in Polish rural economy.



Legend:

Society	Viable	Sustainable
Environment	Economic	Bearable
Equitable		

Source: author's research

Figure 1. Sustainable development as a result of three compounds - society, environment and economy

Measurement of social and economic growth

Social and economic development is the widest description that covers general development trends of a particular country. It is a multilevel description requiring a particular analysis.

Economic growth (based on PWN encyclopaedia) means qualitative and structural changes in the national economies. It is an objective description covering global production of the country in a particular year, Gross Domestic Product (GDP), Gross National Product (GNP) or Gross National Income (GNI).

Social development and overall changes influencing the society is a subjective description. Dependence on social relation hierarchy, behaviours, way of thinking and social criteria results in relative scientific and cultural goods, the quality and level of life. Social development also results in quantifying determinants directly or indirectly influencing the level or quality of life (Głosowska A, 2008).

The purpose of social and economic action, taken on the local level is the increase of the level and quality of people life. It is achieved by the development of building and architecture, taking care of natural environment, involving new economic investors, and social and economic stimulation of citizens. If these tasks are done in a proper way, then they will result in economic promotion of the region. Bański and Czapiewski provide a new definition of the so-called rural region of economic success. The main factors that generate economic success are divided into three main groups (Identyfikacja..., 2008):

- local factors;
- social and economical factors;
- technical and organisational factors.

Local factors include neighbourhood of a big city, valuable natural resources, being the main communication centre, valuable and tourist

attractive elements related to natural environment, and cultural elements. Social and economic factors are related to the participation of citizens or external investors into the social and economic development. These factors may include high level of education in a region, high social activity, and interest of external investors. Technical and organisational factors define readiness of a region to perform different activities, including also investment. This group contains good equipment in technical infrastructure, documents related to future buildings and investments, benefits for investors, and involvement of local administration in the promotion and development of a region.

Results and discussion

Research and methods

The research covers 23 communities, which in 2000 were mostly engaged in classical farming. After 10 years part of them have specialised in economic production (10). The other 13 communities have not changed the profile.

For the research purpose the variables mean stable technical, organisational and localisation factors. Their difference has been very similar in 2000 and 2009. The empiric data describing the chosen village areas were collected in cooperation with regional administrations and communities. The following factors were chosen to measure the possible influence of ecological farms on the social and economic development of regional areas:

- number of unemployed [persons]
- total amount of investment [in PLN million]
- number of people with higher education
- share of people using technical infrastructure [%]
- monthly income per 1 person [PLN thousand].

The year 2009 is based on the estimated data. The research results show the biggest and smallest changes having occurred in the chosen communities.

Table 1

Dynamics of changes for the chosen social and economic growth for 23 communities (year 2000=1)

Community	Number of unemployed, 2009 vs. 2000	Amount of investment expenses 2009 vs. 2000	Number of people with higher education 2009 vs. 2000	Number of people using technical infrastructure 2009 vs. 2000	Amount of income per 1 citizen 2009 vs. 2000
Baligród *	0.75	0.82	1.15	1	1.26
Baranów	0.94	1.67	0.35	1.09	1.1
Biały Bór *	0.81	1.29	1.07	1.1	1.46
Borne S. *	0.85	1.55	1.1	1.08	1.39
Borów	0.93	1.75	1.125	1.04	1.13
Ciepielów *	0.85	1.375	1.07	1.09	1.13
Golub Dobrzyń	0.94	1.53	1.11	1.07	1.21
Grójec	0.94	1.91	1.12	1.1	1.21
Jedlińsk *	0.78	1.57	1.19	1.12	1.42
Kańczuga *	0.81	2.5	1.13	1.14	1.43
Komańcza *	0.94	2.33	1	1.2	1.43
Kondratowice	0.9	1.375	0.95	1	1.44
Lelów	0.96	1.42	1.125	1.06	1.33
Olszanica *	0.9	1.57	1.12	1.04	1.33
Orły *	0.89	2.2	1.09	1.07	1.33
Pleszewo	0.92	1.22	1.05	1.05	1.47
Pyrzyce	0.88	1.2	1.2	1.13	1.31
Radziejowo	1.04	2.125	0.83	1.09	1.42
Rojewo	1	1.27	0.89	1.14	1.44
Stara Dąbrowa	0.9	1.2	1.23	1.04	1.38
Szepietowo	1.06	1.125	1.25	1.05	1.43
Tarnogród *	1	1.27	1.08	1.05	1.56
Wągrowiec	1.18	1.2	0.94	1	1.48

Legend:

Orange – maximum percentage changes

Blue – minimum percentage changes

Source: author's research

According to the rules of economy the situation is profitable when:

- number of unemployed decreases;
- income of citizens grows;
- expenses on investment grow;
- number of people with higher education grows;
- number of people using technology solutions in the community grows (water, sewerage, gas or electrical network).

Empirical research

Table 1 presents the dynamics of changes related to the chosen metrics of social and economic growth for 23 communities. Value 1 means that no changes were observed in the period. Factors that are below 1 mean a decreasing tendency of the

observed variable. Factors with a value higher than 1 suggest a growing tendency.

Communities marked with a yellow colour (with *) are the ones that have growing ecological production. They are mainly located in the South-east and North-west Poland. Communities with classical production (not marked with colour) are located in the regions: Wielkopolska, Dolny Śląsk, and Kujawsko-Pomorski.

Nine on ten communities that are focused on ecological production have noticed a decrease of the unemployed people. The unemployment has not changed only in Tarnograd. A special appraisal should be placed on the communities: Baligród, Biały Bór i Jedlińsk, where the number of unemployed people is approximately by 25% less than 10 years before.

The biggest growth of unemployment was noticed in communities that are focused on traditional farming: Wągrowiec, Szepietowo, and Radziejewo.

Investment is a tool that influences the change of development in the communities. Its growth means that the local and national administration is fully involved. In the analysed communities investment expenses showed an increase from 12.5% to 150%. Only in Baligrod investment expenses in 2009 were lower by 12% compared with 2000.

The biggest increase of investment expenses was noticed in three ecological communities: Kańczuga, Komańcza and Orły. The smallest – except the earlier mentioned Baligrod, were noticed in Szepietow, Pyrzyce, Stara Dabrowa, and Wagrowiec.

The next metric shows the quality changes that appear in the society living in rural regions. The increase of people with higher education is characteristic for 18 communities, of which 10 communities are focused on ecological farming. The decrease in the number of people with higher education was noticed in regions where the majority of jobs are in the farming with traditional style of production. It can be noticed, for example, in Baranów (decrease by 65%), Radziejewo (decrease by 17%) and Rojewo (decrease by 11%).

The next two metrics show the dynamic changes in the number of people using technological infrastructure, and income per person. They show only positives changes. Income of the society increases. The growth is not very fast (from 10% to 56%), but the general trend is positive. The share of people using technical infrastructure has not changed in Baligrod, Kondratowice, and Wągrowiec. In other communities it continuously grows (changes from 4% to 20%)

Conclusions

The analysis of chosen metrics of social and economic growth for the period of 2000-2009 in 23 communities shows that one community focused on ecological farming indicates on a continuous decrease of unemployment, and growth of highly educated people and increase of income per citizen. These communities have experienced higher attention of the local administration in the establishment of good development conditions

(increase of expenses on investment, and improvement of technical infrastructure).

The economic farming pushes the local society to engage in the implementation of developing trend. The trend is based on technology. The ecological farms to achieve the goals need a help, for example, of local administration of neighbours.

The other 13 communities, where classical farming dominates can be also described as communities willing to increase the economic and social conditions. However, the metrics show that changes not always have proper direction (for example, Baranow, Kondratowice or Wagrowiec) or changes are not showing the relatively strong dynamics (Stara Dabrowa or Borow).

The focus of people on ecological farming allows the full use of regional potential: people, culture, nature, and production. It allows also good cooperation between the local administration and social initiatives. There is a possibility to set an integrated goal: "environment-economy-society", which may lead to the implementation of sustainable development.

The analysis of empiric data advances the hypothesis, which might be the beginning for further research: if the growth of farms focused on ecology is one of the factors influencing tourism services in these communities, it creates additional jobs in the service sector (out of farming scope).

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Provision of Sustainable Development of Small and Medium Size Enterprises in the Regions of Latvia

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Abstract. Small and medium size enterprises play a very important role in the economy of Latvia, Europe and the whole world. Therefore many researchers have devoted their attention to the problems of SMEs development. The research discloses the main factors influencing sustainable development of SMEs: competitiveness, marketing, innovations, technologies, management, education, and training. The following methods are used in the research: monographic method, analysis of statistic indicators, and graphical analysis. The current article examines different indicators characterising SME's development in Latvia's regions and districts. The research results show that the largest number of SMEs per 1000 inhabitants is observed in Riga region and Preiļi district. It is no surprise that Riga region is very economically active also in the establishment of SMEs; however surprise is that there are so many SMEs in Preiļi district, which is located in the Eastern part of Latvia and its neighbouring districts have many economic problems. It would be useful to contribute the next research to the study of reasons for the establishment of so many SMEs in Preiļi district; besides it could be good to provide examples for other neighbouring districts. It is necessary to increase the number of small and medium size enterprises in all regions and districts of Latvia to reach the average European Union level.
Key words: SME, regions of Latvia, sustainable development.

Introduction

Small and medium size enterprises play a very important role in the state economic development. SMEs cover the biggest share of all companies in Latvia as well as in the world. In 2007 there were more than 99% of SMEs employing 67% of employees in the EU [7].

All European Union member states have recognised the importance of SMEs in the economic development. In 2002 Latvia has joined the Charter of European Small and Medium Size Enterprises. The main aim for joining the mentioned above charter was to create SME friendly support policy. For the support of SMEs in 2008 "Small Business Act" was adopted, which prescribes the necessity to support the needs of small and medium size enterprises to improve the overall approach to entrepreneurship [1].

Gunter Ferheugen, a Vice Chairperson of the European Commission, who is responsible for entrepreneurship and industry, opening the SMEs week on May 6, 2009 in Brussels, indicated that the way out from the economic downturn is the establishment of SMEs, adaptation of skills, and chance to find the way out solutions. Thus it is necessary to have more SMEs, as they are the main creators of development and new jobs [2].

Extremely important is the support for SMEs especially during the current economic situation, when an economic downturn is observed and many people have lost their jobs. The development stage of enterprises employs more and more people, though as it is indicated in the "Charter of European Small Entrepreneurship" the increase in the EU employment rate is about 10-20%, while in the USA the number of employees has increased by 60% [1].

The research aim is to analyse external and internal factors influencing sustainable development of SMEs, situation in small and medium size enterprise location, and innovation activities of SMEs in the regions of Latvia.

The following tasks are covered to achieve the set aim:

- to analyse scientific publications on SMEs sustainable development problems;
- to update and analyse scientific information on the most important factors influencing the development of SMEs;
- to analyse the data on SME in the regions of Latvia.

The method of monographic analysis, statistical data analysis, and graphical analysis is used in the respective research.

Results and discussion

In 2007 micro, small and medium sized enterprises in Latvia constituted 99.7% of all economically active enterprises, of which the biggest share – 87.8% was covered by micro enterprises [3]. It is important to strengthen the development of entrepreneurship; hence micro enterprises could develop in larger companies with bigger turnover and number of employees, at the same time increasing the number of employed, and the turnover of companies.

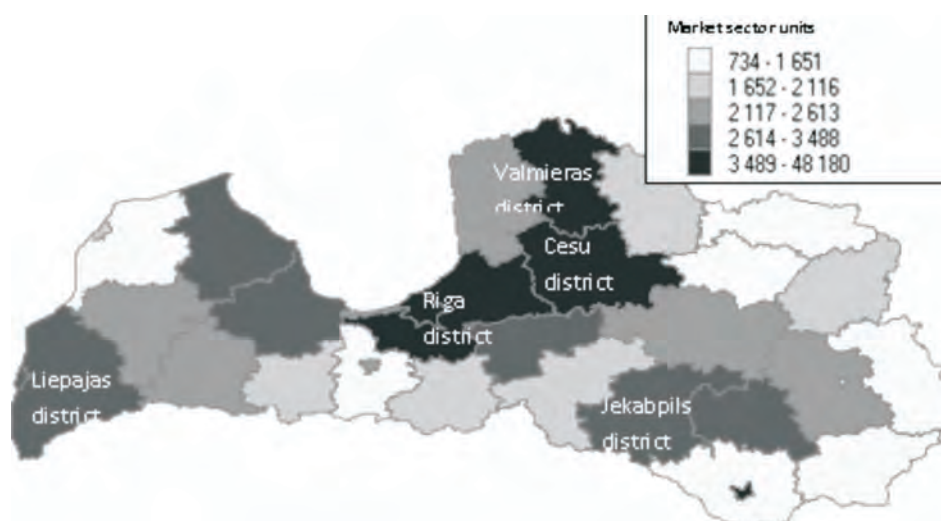
In Latvia it is important to contribute to the regional development and the development of all regions as well as to decrease differences in the socio-economic development. Therefore it is necessary to create the environment for successful entrepreneurial activities, and to ensure access to lifelong learning [4].

Table 1

Distribution of economically active statistical units by size in the regions of Latvia in 2007 and 2008

	2007		2008	
	Share of micro, small, medium size enterprises, %	Number per 1000 inhabitants	Share of micro, small, medium size enterprises, %	Number per 1000 inhabitants
Riga region	37.57	68	38.18	67
Pierīga region	14.22	49	14.29	47
Vidzeme region	11.23	60	11.11	59
Kurzeme region	12.98	55	12.76	53
Zemgale region	11.04	50	10.54	47
Latgale region	12.96	48	13.11	48

Source: authors' calculations according to the Central Statistical Bureau databases, <http://data.csb.gov.lv/DATABASE/rupnbu/vn/Ikgad@jie%20statistikas%20dati/Statistikas%20vienibu%20reģistrs/Statistikas%20vienibu%20reģistrs.asp>



Source: authors' calculations according to the Central Statistical Bureau databases, <http://data.csb.gov.lv/Dialog/Saveshow.asp>

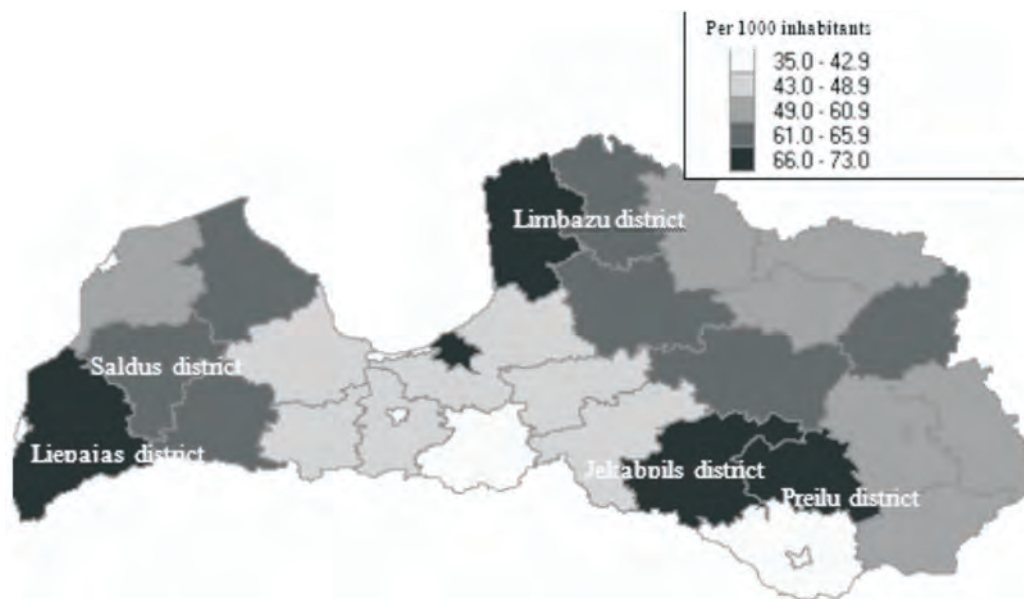
Figure 1. Distribution of economically active statistical units by size in Latvia's cities and regions in 2008

Data of the Central Statistical Bureau on the development of regions in Latvia show that in 2008 the largest number of SMEs is in Riga region and Pierīga (close to Riga) region. In Riga region SMEs account for 38.2% of all SMEs in Latvia, in Pierīga region 14.3%, in Kurzeme region – 12.8%, Latgale region – 13.1%, Vidzeme region – 11.1%, and Zemgale region – 10.5%. In all regions, except Riga and Pierīga regions, the number of economically active units has decreased in comparison with 2007. In 2008 Riga region had the largest number of SMEs per 1000 inhabitants: 67, in Vidzeme region – 59 SME, in Kurzeme region – 53 SME,

Zemgale region – 47 SME, Latgale region – 48 SME, and Pierīga region – 47 SME (Table 1).

The analysis on Latvia's districts in 2008 shows that Riga district had 7690 economically active market statistical units¹, or 12.3% of the registered units in Latvia's districts, in Vidzeme region – Valmiera district – 3560 economically active market statistical units (7.2%) and Cēsis district – 3489 economically active market statistical units (7%) Latgale region - Jēkabpils district – 3422 economically active market statistical units (6.9%), Kurzeme region - Liepāja district – 2977 economically active market statistical units (6%) (Figure 1).

¹ Economically active statistical units – legal or physical persons, who in the respective year have produced goods or offered services or employed people, self-employed persons, individual enterprises, farmers and fisherman farms, individual businessmen and companies [3]



Source: authors' calculations according to the Central Statistical Bureau databases, <http://data.csb.gov.lv/Dialog/Saveshow.asp>

Figure 2. Distribution of economically active market sector statistical units per 1000 inhabitants in Latvia's cities and regions in 2008

In 2008 the largest number of SMEs per 1000 inhabitants was observed in Preiļi district – 73 SMEs, in Liepāja district – 69 SMEs, Limbaži district – 68 SMEs, Jēkabpils district – 67 SMEs, Saldus district – 66 SMEs per 1000 inhabitants (Figure 2).

The analysis of the distribution of economically active statistical units by size in the regions of Latvia in 2008 shows that Riga region and Pierīga region provide the majority of commercial societies – 75.4% and 46.1% respectively, followed by self – employed persons – 20.3% and 36.5%; while the number of individual businessmen equals to 4.2% in Riga region, but in Pierīga region the number of farmers and fisherman farms equals to 10.8% (Table 2).

It is necessary to increase the number of commercial societies, individual businessmen, and farmers and fisherman farms, where more people are employed, thus generating bigger turnover. Of course, in the situation of economic crisis, it is good if people are employed and involved in entrepreneurship.

In the world a lot of research is done² on the problems of SMEs sustainable development, including the analysis on influence of different factors on SME's operation and development. The following factors are mentioned among the most important factors influencing entrepreneurship:

- competitiveness;
- marketing;

- innovations;
- technologies;
- management;
- education and training.

Many of the mentioned above factors are mutually related, often influence of the factors could be noticed after some time.

For successful operation of companies, they need to get place on local and international market of goods and services, as well as increase competitiveness of companies. Marketing, innovations and introduction of new technologies play an essential role in the maintenance of competitiveness.

The above mentioned scientific articles stress that marketing has one of the most important roles in knowing wishes and needs of clients, attracting clients and getting into new markets, and keeping the existing markets. Marketing research helps know the market demand, needs and wishes of clients, helps make forecast of demands, and make plans for the future development of a company. Simpson and Padmore in their publication "Marketing in Small and Medium Sized Enterprises" have provided deep analysis of SME financial indicators related to the role of marketing [5].

Model allowing estimating the influence of marketing on SMEs development has been worked out by Simpson and Tayler and more explained in "Role and Relevance of Marketing". Simpson and Taylor underline the importance of marketing to keep

² X. Huang, A. Brown, An Analysis and Classification of Problems in Small Business, *International Small Business Journal*, Vol. 18, No 1, 1999, pp. 73 – 86.

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Table 2

Distribution of economically active statistical units by size in the regions of Latvia in 2008

	Self-employed persons,%	Individual businessmen,%	Commercial societies,%	Farmers and fisherman farms,%
Riga region	20.3	4.2	75.4	0.1
Pierīga region	36.5	6.7	46.1	10.8
Vidzeme region	43.5	6.5	27.8	22.2
Kurzeme region	41.3	9.1	32.2	17.4
Zemgale region	39.5	10	30.1	20.3
Latgale region	51.4	8	24.2	16

Source: authors' calculations according to the Central Statistical Bureau databases, <http://data.csb.gov.lv/DATABASE/rupnbuvn/Ikgadējie%20statistikas%20dati/Statistikas%20vienību%20reģistrs/Statistikas%20vienību%20reģistrs.asp>

Table 3

The share of economically active SMEs in innovations in Latvia for 2001-2006

Processing Industry	2001-2003	2002-2004	2004-2006
Number of employees 10 - 49	17	12.6	9.8
Number of employees 50 - 249	34.7	29	27.3
Total	51.7	41.6	37.1
Services			
Number of employees 10 - 49	12.2	15.6	15.8
Number of employees 50 - 249	26	24.1	24.7
Total	38.2	39.7	40.5

Source: authors' calculations according to the Central Statistical Bureau databases, <http://data.csb.gov.lv/DATABASE/zin/Ikgadējie%20statistikas%20dati/Inovācijas/Inovācijas.asp>

competitiveness and market share, especially in the management of specific business environment [6].

Importance of marketing in SMEs development is analysed by Huang and Brovn in their publication "An Analysis and Classification of Problems in Small Business". Here they stress that successful use of marketing could be a crucial factor for SMEs survival and further development [8].

To ensure successful work of enterprise it is necessary to make plans of activities. Alpkan, Yilmaz and Kaya in their publication "Market Orientation and Planning Flexibility in SMEs: Performance Implications and an Empirical Investigation" conclude that one of the main factors for successful provision of competitiveness of SME is combination of market

oriented culture and flexible planning strategies. It allows the company to react on fluctuations of external environment.

The introduction of innovations plays a significant in successful operation of all companies (big, small and medium sized). Unfortunately enterprises in Latvia are not innovative enough. Data of the Central Statistical Bureau show that the number of innovative SMEs in the period of 2001-2006 has decreased in processing industry and equals only to 37.1% of total number of SMEs. In service sector it has increased and accounts for 40.5% of total number of SMEs (Table 3).

A lot of research has been done on the role of innovations for the increase of competitiveness

of enterprises. Tirupati in the publication "Role of Technological Innovations for Competitiveness and Entrepreneurship" has pointed out that in case of globalisation, when competition increases, innovations is one of the main preconditions for successful work of the company [9].

Jennings and Beaver in their publication "The Performance and Competitive Advantage of Small Firms: A Management Perspective" have indicated that successful work and development depend on a manager and his/her knowledge and skills. Many companies are not successful as they have weak management with low knowledge level [10].

The role of knowledge management has increased, but still many SMEs often make only "informal" knowledge management. Hutchinson and Quintas in their publication "DO SMEs do Knowledge Management?" have underlined that during the past ten years significance of knowledge management has increased in all branches of economy [11].

During the development stage of enterprise in situation of increased competition financial management plays a more significant role. McMahon in the publication "Growth and Performance of Manufacturing SMEs: The Influence of Financial Management Characteristics" has concluded that by the improvement of financial management, business development improves. Enterprise orientation towards improvement (strategic planning, investment planning, export obligations etc) through successful analysis of external and internal factors could lead to the SME development [12].

Very often the influence of education on SME activities is left only after a certain time. As result the influence of external conditions on education could be not observed even for several years. Cosh, Duncan and Hughes in their publication "Investment in Training and Small Firms Growth and Survival: An Empirical Analysis for the UK" stress that in the United Kingdom a positive relationship between SME development and education has been noticed in the period of 1990-1995, though it has not been observed in the period of 1987-1990 [13].

Company's managers often do not think about training of their employees, they often lack information on training possibilities, and there is no conviction about the influence of training results on the company results. Macdonald, Assimakopoulos and Anderson in their publication "Education and Training for Innovation in SMEs: A Tale of Exploitation" underline that innovations increase competitiveness, number of working places, region abundance. Besides they have pointed out that the government has to take part in training activities [14].

The European Commission has indicated [15] that in Europe it is necessary to stimulate entrepreneurship spirit among the young people, encourage and support creation of start of innovative business, encourage culture, which is entrepreneurship and SME development friendly. Interdisciplinary approach to entrepreneurship education makes it available for all students; it encourages creation, application, and development of business ideas. It is recommended to involve entrepreneurs in education process to make study process closer to practice and reality.

Conclusions and recommendations

Small and medium size enterprises play an important role in the economic development of a country. SMEs constitute the biggest share of all companies in Latvia, Europe and the whole world. Researches of many world scientists show that sustainable development of small and medium size enterprises is influenced by many factors, many of which are closely related. The scientific publications mention the main factors influencing SME development: competitiveness, marketing, innovations, technologies, management, education and training.

- It is necessary to increase the number of SMEs as they are the main creators of economic development and establishers of new working places.
- In Latvia it is important to promote development of all regions and districts, and to decrease the socio-economic disparities. It is necessary to support the economic development of regions, and to create environment for successful business development to achieve the mentioned above.
- It is necessary to increase the number of companies, including farmers and fisherman farms in all regions of Latvia, especially in Latgale, Vidzeme, Zemgale, and Kurzeme regions.
- The increase of competitiveness is an important condition for SME existence and development. Marketing, innovations, and introduction of new technologies play an important role in maintaining the competitiveness.
- The use of marketing research methods helps discover needs and wishes of clients, attract new clients, and keep the existing clients, helps maintain competitiveness, market share as well as reach new markets of goods and services. It is possible to plan further work and development of a company through successful application of marketing research on the market demand.
- Innovations implementation is the main precondition for maintenance of competitiveness not only in large companies, but also in SMEs. Unfortunately data of the Central Statistical Bureau show that SMEs in Latvia are not innovative enough.
- The management role increases in small and medium size enterprises on conditions when it is necessary to increase a company's competitiveness. Activities and the development of companies, including small and medium size enterprises to a great extent depend on a manager, his/her knowledge, experience, and skills.
- Education and training has big influence the facilitation of entrepreneurship, since knowledge, skills, and experience are very useful for the successful work of SMEs.
- It is important to stimulate entrepreneurship spirit among young people, inspire them to create innovative enterprises, facilitate culture, which is entrepreneurship and SMEs development friendly. More attention could be paid to the

application of recommendations of the European Commission to teach entrepreneurship also for non – economic and non – business students as well as to follow the Cabinet Regulations of the Republic of Latvia to include business courses in all study programmes.

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“ECONOMIC SCIENCE FOR RURAL DEVELOPMENT”

Proceedings of the
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SUSTAINABILITY

2. Home Economics and Sustainable Consumption

Home Economics Contribution to Improvement of People Life: the Case of Slovenia

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Abstract. Land, water, and forests are the primary resources of agricultural production. Destructive land use practiced in the past has resulted in the present day crisis. The courses in home economics may help children think about the current problems related to our planet – the Earth. Different teaching activities provide an excellent opportunity for teaching environmental values, family resource management attitudes and behaviour to children. The present research describes, analyses and defines teaching materials and methods most appropriate for the use in home economics courses in order to encourage resource conservation and environmental protection.

Key words: home economics, environment, family resources management, teaching activities.

Introduction

Slovenian Environment Agency (October, 2009) has found out that the number of households in Slovenia increases faster than the population. The number of households has increased by almost 50% from 1961 to 2002. The population has grown by almost 25%. In 2002 compared with 1991 the number of households with more than four members has reduced at the expense of smaller households with one or two members. It is widely known that households are an important link in the chain of consumption and production. Household consumers have the final say on a daily choice of goods and services. Smarter consumption and sustainable lifestyles are the most important factors for reducing the negative impact of households on the environment. The present research describes, analyses and defines teaching materials and methods most appropriate for the use in home economics courses in order to encourage resource conservation and environmental protection. The research aim is to present the structure of Home Economics as a school subject in Slovenia as well as active methods which may be effective in achieving behavioural change. It is believed that nowadays we face a situation, which does not require fine words but many small changes in our living habits.

Home economics milestone

Home economics is described as an interdisciplinary and a multi-disciplinary profession, with the importance of families/households at the core of investigation and acting (Pendergast D., 2006). In Slovenia Home economics as school subject is taught in Forms 5 and 6 of the new nine-year primary school. The school subject is designed interdisciplinary and consists of four modules (home economics, living environment, nutrition, and textile). The subject matter involves topics of every day life: interpersonal relations, health, safety, personal growth, and development

of the whole family economy and the environment. Koch V. (2002) says: "If we understand the family – regardless of the number of its members – as a small company, we must be clear that the knowledge resources in our daily lives and the exploitation of these resources to meet vital needs as well as our ability of their economics use is very dependent on the quality of daily life".

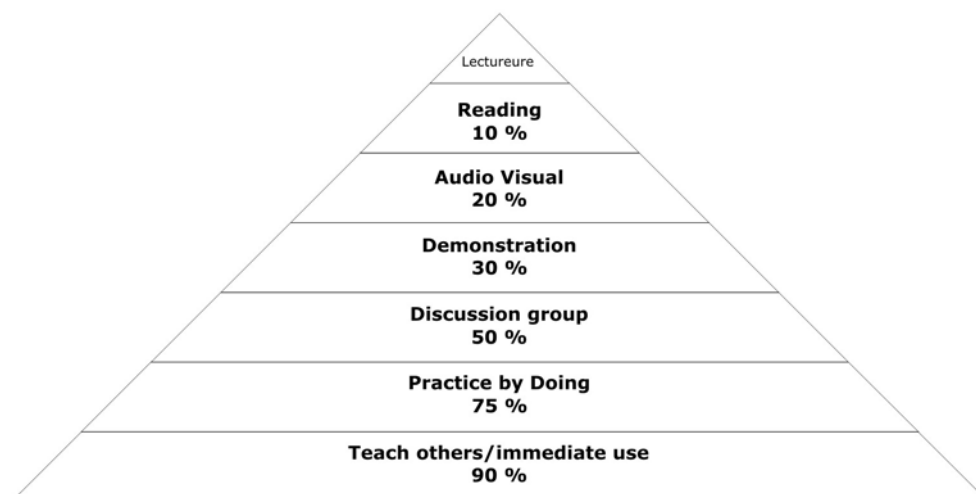
Pretty et al. (2000) set out a model for sustainability based on five – capital –assets– natural capital, physical capital, social capital, human and political capital, and financial capital that are fundamental for welfare and economic development (Caraher M., Reynolds J., 2005). This model is useful as a starting point for different learning activities in all four modules of Home economics.

The student's competence is how to make connections between the student's daily life activities and school knowledge. It means that students are able to:

- select, prepare, cook, and serve healthy food;
- make informed choices in their lives (about food, clothes, money..);
- understand issues that influence the well – being of individual and family;
- analyse dependence within family/household and environment and do things in a new, better way;
- think about strategies to improve family/ household and world well – being;
- solve problems of everyday lives trough clear, and creative analyses;
- find out what a pupil can do to help clean up the Earth.

The main goal of home economics in primary school is to prepare pupils for a successful and satisfactory personal and social life, and enable them to take full environmental responsibility. Ertz W. (1993) considers that in the situation, when we face the world ecological crisis, it is necessary to:

- make/enable people to take an active role in nature and nature protection;



Source: Dale Edgar, 1969

Figure 1. The Learning Pyramid

- reinforce the idea of avoiding harmful interventions in the nature;
- strengthen the protection of nature as integrative, inalienable, and integral part of individual and social. behaviour, especially in the context of economic thinking and behaviour.

Home economics course can be only one small piece in building the students' awareness. However, appropriate teaching strategies may bring a lot of success. Alkhalifa Eshaa M. (2005) defines seven main areas that a teacher as a designer of teaching process should consider:

- 1) perception and recognition;
- 2) attention and memory;
- 3) mental representation of concepts;
- 4) natural language comprehension and generalisation;
- 5) reasoning and deduction;
- 6) cognition and emotion;
- 7) cognitive learner differences.

All the above listed areas can be supplemented with the Learning Pyramid, which shows how different teaching methods affect retention rates.

All teaching activities should produce skills consistent with the higher level skills of Bloom's cognitive hierarchy of learning. However, it should not be overlooked that learning involves emotions and should therefore be attractive, too.

Goals and methods in Home Economics education

In 2007 (http://kazalci.arso.gov.si/?&data=indicator&ind_id=210) households were under the IPRO study identified as one of three areas (in addition to traffic and consumption, and food production and beverages), which shall be monitored. The growth of households in Europe represents an increase of environmental pressures (pollution of air, water, excessive use of soil, and the increase in the waste volume).

As we have seen the best learning results are achieved, when we use active learning methods. We could introduce environmental education to students using a problem solving problem based learning. Gardner's theory of Multiple Intelligences (Gardner H., 1993) is based on the idea that the intelligence is an ability to:

- find and create problems;
- solve real-life problems;
- offer a product/service that is valued in at least one culture.

Module Environment

We can identify environmental problems that are related to households, local and global economy (Gore A., 2007, Fefer J., 2007). Siko ek D. (1999) states an effort for the provision of a healthier environment to require an action-based work not only with other schools in one country, but also with/ in different communities inside and outside one's country (in different countries or continents). But we have one more problem today – many children do not have authentic experience with nature – these are the so-called indoor children. So many children do not see the problems; they only hear or learn about them.

Module Nutrition

Teachers involve learning strategies which include situations out of everyday life because they think that it is necessary to learn from the authentic everyday life situations. Concerns regarding the food advertisement relate to the impact on child and family health. It is therefore wise that teachers try to make children think critically about consumption of different products. It is widely known that today's children become exposed to consumerism at a very early stage.

Benedik M. (2008) who did a research on 126 primary school children found out that:

Table 1

Some ideas to teach Children – Module Environment

Content	Pupils' activities
Household cleaning and personal care	Many products have labels from which it is not possible to figure out what kind of detergents they contain. Children should read labels and suggest the ways how to improve the situation.
Packaging – environmentally friendly	Gore A. (2007) states that production and use of plastic bags means a substantial contribution to the environmental pollution. Pupils make environmentally friendly packaging or packaging which can be re-used, the so-called zero waste.
Electricity consumption	Pupils develop a Project "Who is an Energy Star".
Water consumption	Pupils write a story – A Drop is telling a Story.
Waste separation	Pupils play didactical games on CD
Building materials	Teacher use Pro and contra method
Agriculture	School garden or school boxes with plants, visiting or making projects with Schools in rural areas.

Table 2

Some ideas to teach Children - Module Nutrition

Content	Pupils' activities
Source of food	Pupils should find connection between costs of production and transportation through investigation. Teachers can prepare a case study for the pupils.
Food accessibility for healthy life	Teacher can use methods of practical work to develop skills in preparing healthy meals; cooking courses for students, collecting good ideas, best practices, inviting parents, professionals.
Vending machines – not unhealthy drinks and snacks	Pupils analyse what they can buy. Pupils write a radio game.
Advantages and disadvantages of packing of food and other goods – costs and benefits	The problem of industrial products is also the use of biological inadequate packaging, which has a long term degradation. Lobnik-Zorko A. and Železnik N. (1992) therefore recommend the use of environmentally friendly packaging or packaging which can be used repeatedly. Prevention of disease is essential, but requires a change in patterns of food supply and demand (Dalmeny et al., 2004). This sentence is a base for thinking – Teachers use the method "Snowball".
Food advertising	Pupils observe 4 cases and analyse them, then create their own commercial TV spots.

Table 3

Decision-making factors

Factor	Students (n=100)		Adults (n= 36)	
	Points	Rank	Points	Rank
Price	115	1	405	2
Appearance	104	2	427	1
Content of natural ingredients	78	3	362	3
Greener product	63	4	206	4

Source: Virant Nadja, 2008

– two thirds (67.1%) of all children population tested do not know whether food products advertised on TV are good for them or not;

– younger children are more under the influence of product packaging - statistically significant differences between older and younger children were found (t value = 1.41, p = 0.005)¹.

¹ The statistical conclusion was used at-risk 0.050

Table 4

Some ideas to teach Children - Module Textiles

Content	Pupils' activities
Raw materials	Pupils can find on the Internet some information on obtaining of raw materials. Teachers use the method "Learning by Teaching".
Refinement of goods	Pupils should discuss the following questions: What do we need for living? Is everything we use economical and ecological? What do we need for the experiment? Teachers use the method "Discussion".
Maintenance	Pupils analyse labels on detergents, plasticizers; pupils observe labels and play game dominoes.
Recycling	Pupils make bags from different used materials.
Fashion	Pupils make an interdisciplinary project: World star - pupils shall combine nutrition, economics, ecology, and basic knowledge from module Textile.

Table 5

Some ideas to teach Children - Module Economics

Content	Pupils' activities
Production	Pupils can focus on households in connection with local and global Economies. Pupils find out what sources we need to live, where and how we can get what we need. Then pupils search ideas, what they can do – produce; connection with practical work. At the end pupils prepare their best "business idea" which can contribute to the well-being of people.
Advertisement	<i>Pupils calculate</i> advertisement's cost of healthy meal. Teachers use "Study work – examples".
Market	Pupils play "Roll games" - producer, consumers and advertisers. Pupils think about an individual impact on the environment.
Consumption	Pupils make "Ecological footprint" – pupils investigate how green is their school and prepare action plan for the improvements. Pupils can produce an article for community news paper.
Planning	Pupils use "Timing cards" for planning their activities. Students should learn how expensive wasting one's time is.
Business	Pupils can play <i>business game</i> , named "Who deserves family farm (or bakery)".

In our curriculum consumer education is part of all four modules (Economics, Nutrition, Environment, and Textile). Source of food, composition and food accessibility for healthy life are very important areas. All methods are based on the connection with every day living of children (Table 2). In many cases children have become teachers of their parents.

Module Textile

Virant N. (2008) has interviewed 36 students and 100 adults. She wanted to determine which factor is the most important when people purchase textile products. She tested them through their (dis) agreement on a Likert scale (1- I strongly agree, 2- I agree, 3- I do not agree, 4- I do not agree at all). Answers were scored from 1 to 4.

She found out that the price is the most important factor for children, while appearance is important for adults (Table 3).

This difference is probably related to children's amount of pocket money.

She also found out that knowledge from module Textile in general is not satisfactory; so a new strategy shall be introduced in the learning process (Table 4).

Economic aspect in Home economics teaching

The primary object of any sustainability assessment exercise is to provide the opportunity for more inclusive and informed decision making on the issues of development. Children should be explained economic role of household, i.e. household as a consumer and sometimes as a production unit.

With different active methods we can combine all four modules in one interesting and useful subject. Children should recognise that everything what they learn can contribute to the well-being of everything

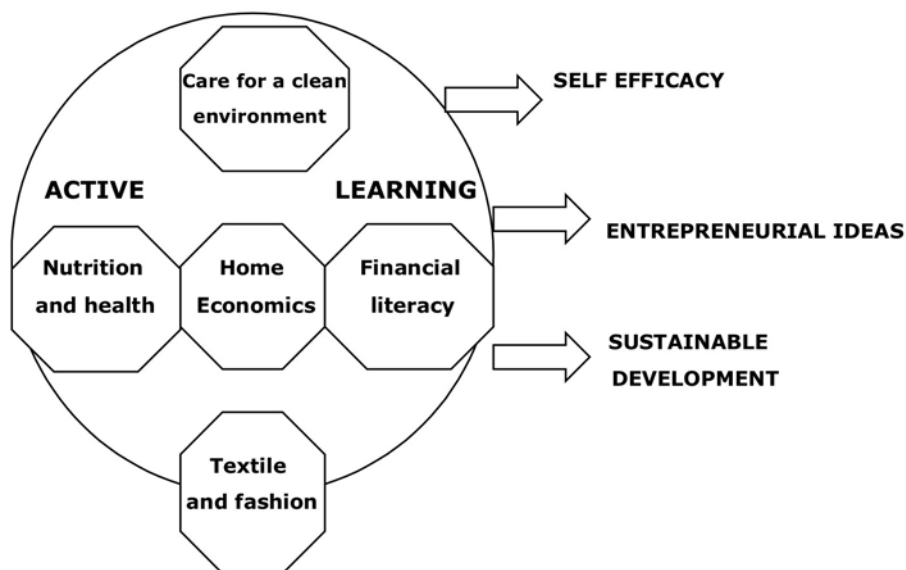


Figure 2. Home Economics integration model

and everybody. This fact might be shown by Home Economics integration model (Figure 2).

Active learning is important for cognitive development because pupils are involved in higher – order thinking. Pupils do more than simply listen to a lecture. Pupils can also actively explore their own attitudes and values.

Conclusions

Home economics is a multidisciplinary subject. With a professional approach we can show to the students how to achieve satisfactory life in the family. Home Economics is taught Forms 5 and 6 of the primary school. Modules Economics and Textile are presented only in Form 5. Sources for living, money and financial literacy, time planning, consumerism, fashion and so on are very important topics for which we have only 35 learning hours per year. One small range of hours in Form 6 is reserved for environmental topics; slightly more hours remain for Nutrition, in general 53 hours per year. The biggest problem is the small range of Home Economics hours in the primary school, and the fact that pupils in the secondary school have no chance to learn something more about home economics topics. However, with clever choice of learning methods we can impact the students' behavioural change. Home economics teacher should bring people to take an active role in the nature protection. It is a very important fact when we discuss the ecological and economic development.

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Teaching Competence of Financial Self-Management in Home Economics Lessons

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Abstract. The competence of financial self-management is a precondition for the success in life. The current paper is a research on the knowledge of Tallinn University home economics and handicraft students about drafting personal budget, spending study loans, purposed planning and running a household, comparing prices and quality of goods, cutting down water and energy costs, and waste treatment. It became apparent that their awareness of household management is inadequate. According to the research results, the authors suggest ways how to modernise teaching of home economics in general education schools in Estonia with the help of problem, project and web-based study, individual and group work tasks. They also analyse the practicality of field visits and didactic games, and the potential of outdoor learning in treatment of various topics. Home economics is one of the most suitable school subjects for teaching competence of financial self-management as it combines theoretical knowledge with everyday life needs.

Key words: home economics, implementation of active learning.

Introduction

The development of society has been accompanied by the enlargement of prospects, requirements and diversity of tasks for an individual and the family. It has also been followed by the decrease of willingness and skills 'to do it oneself' together with progressing individual helplessness in the management of life matters. It results in difficulties when using time and money resources. Children have become big-scale consumers, but the quickly increasing purchasing power does not at all go hand in hand with the growth of financial knowledge and competence (Bailey G., Law F., 2007). The situation calls for shift in emphasis for the education system as well. Home economics belongs to the most important school subjects in the process of shaping an autonomous and capable of analysis individual, because here theoretical knowledge gained in other subjects is linked to real life needs via practical activities (Benn J., 2006). One of the main topics in modernised home economics curriculum is family economics and consumer education (Home and ..., 2000; Kotitalous, 2004). The key words of home economics studies are efficient housekeeping, general ability to plan and analyse, environmental friendliness, healthiness, safety, tolerance, etc. with a special emphasis on the need to deal with economic questions, environment safety, and quality human relationships (Baumann K., et al 2009; Lehrpläne, 2008).

A questionnaire research of over 20-year-old Estonians who have just started independent life showed the necessity of home economics subject and its topics for successful financial self-management and creation of normal family relations (Pappel K., et al 2006). The respondents placed consumer education among top three primary skills and subjects vital for independent life. At the same time they pointed out that treatment of the

issues at school had been insufficient. An all-Estonian enquiry of teachers demonstrated that though the majority realises the necessity of emphasis shift in home economics teaching, still in reality most of them follow the already existing list of topics and lesson plans. (Lind E., et al 2007). The reasons for this are the absence of necessary guide and studying materials, little number of lessons assigned for home economics studies and overcrowded classes. A separate problem is also an unbalanced subject curriculum for different sexes: boys and girls' study programme is not similar. And though the curriculum gives students an opportunity to exchange classes, it is not often used in practice (Pappel K., et al 2009). Most teachers are relatively elderly (only 20.5% are under 35 years) (Estonian..., 2009) and are not motivated to alter the approach to the subject. However, shaping a self-reliant individual who is able to manage financially in accordance with the present day requirements and who is also ecologically, ethically and socially responsible requires integral treatment of the topics and implementation of active learning methods.

The research aim was to evaluate financial self-management competence of full-time students (who have just finished school) and part-time students (who are already working as teachers) in order to elicit the shortcomings of teaching this issue in home economics lessons at schools. In accordance with the research results, the authors present various possibilities for an integrative treatment of household management topics in home economics lessons.

Methodology

The authors have used a questionnaire method, applying informed poll of multiple-choice and open questions for the research. Immediate contact in case of informed poll enables to specify the content

and aim of the questions, enhances the reliability of enquiry results, and ensures the return rate of questionnaires. The enquiry was conducted in 2008-2009 and involved 140 students. Students of other specialities also took part in the course in addition to home economics and handicraft students (class teachers to be – as a subsidiary subject and students of other specialities – as an optional subject). The majority of the questionnaire covered young people's decisions in household planning and making a budget, being aware of spending study loan and comparing price/quality relationship of goods, their skills of waste treatment and cutting down water and energy consumption. The questionnaire included 26 questions. MS Excel statistical functions were used for data processing and analysing.

Results and discussion

The eligible for analysis was proved by 133 of delivered questionnaires (i.e. 95%). The majority of respondents (75%) were full-time students, the rest (25%) were part-time students. Year 1 home economics and handicraft students made 67.5% of all respondents, 20% comprised class teachers to be who had chosen home economics and handicraft as a subsidiary subject and 12.5% were external students of other specialties. Twenty-three per cent of the respondents wanted to teach home economics and handicraft in future and 15% of part-time students worked as teachers of the specialty. The average age of Year 1 full-time students was 19.7 years and 32.5 years – for part-time students.

The analysis of questionnaire enquiry showed a direct link between the competence of financial management and real life experience. Insufficient knowledge on principles of family economics and inadequate analysis ability were the main characteristics of Year 1 students. For example, respondents were given a task to keep account of personal expenses during one month, which offered a possibility of self-analysis and a chance to learn about the character of the expenses. It became obvious that most of Year 1 students (92%) came across such an assignment for the first time in their life. They needed guide materials for making a list of expense items and often misunderstood how to note them down. The research indicated that 12% of the respondents had difficulties balancing their income and expenses. Senior and part-time students were better informed about the issues, and most of them (62%) had in their budgets extra money for saving. Seventy-six per cent of part-time students have experience of establishing a family and running its household. Comparison of expense items of full-time and part-time students (Figures 1 and 2) demonstrated that most of the income is spent on housing and food, whereas the content of expenditures is different. Housing expenses of Year 1 students are connected with a relatively high rent and cost of public utility services in Tallinn. Immediate housing expenses of part-time students are considerably lower (14%) but

their expenses rise due to the housing loan (10% of general costs).

There are differences in food outlays too: Year 1 students spend 4% of their income on eating out, while for part-time students this expense item is practically zero. Younger students' higher expenses are also connected with alcohol and tobacco consumption (5% versus 2%), the reason is more active social life of Year 1 students and habits linked to that. Larger outlays for leisure activities in part-time students' case are primarily connected with common family undertakings. They have also separately showed current expenses related to children (9%). Education outlays of Year 1 students are twice as large as compared with senior students, which is determined by their specialty (need to obtain study materials, tools and equipment at the beginning of the school year and their relatively high price). Transport, clothing and footwear costs are comparatively similar.

Taking study loan has changed over the years. Only 10% of students wanted to take study loan in 2009 compared with 30% of the earlier period. The tendency is apparently related to the general economic situation: conditions of repayment have changed in Estonia and an increasing number of students have problems with paying it back (Ratt K., 2008).

In some years the loan can become a complicated problem due to the growing unemployment and loan liabilities. The research showed that most students (82%) plan to spend the loan on practical items – acquiring study tools and equipment, paying tuition fees (40%), and covering housing expenses (42%). However, about 18% of students take the loan for other purposes, e.g. travelling, attending car driving courses and similar.

As products are available in greater range, family economics also includes evaluating environmental friendliness of goods according to the principles of sustainable consumption. This implies people's conscious choice of products or services with least practicable impact on the environment and preference of ecological technologies (Keskkonnasõbralik ..., 2009). The current enquiry into the respondents' awareness of these issues made clear that their knowledge on markings employed on packets, including organic product marks, is insufficient. The choice of goods of most young people is determined by earlier habits (55%) and price (49%) only 10% pointed out environmental friendliness as an aspect to consider when choosing products.

Only 39% of respondents pay attention to economic efficiency when buying home appliances and equipment. The reason for choice is mostly price, practical need and the outer design of the appliance. Students' knowledge on possibilities to economise on electric power and water consumption was also deficient. About 20% of Year 1 students were not aware of electricity price in their household (which price package was in use) and 15% of students did not know about the relation between the output of a home appliance and its efficiency. Sixty-eight per cent of Year 1 students lived earlier with parents

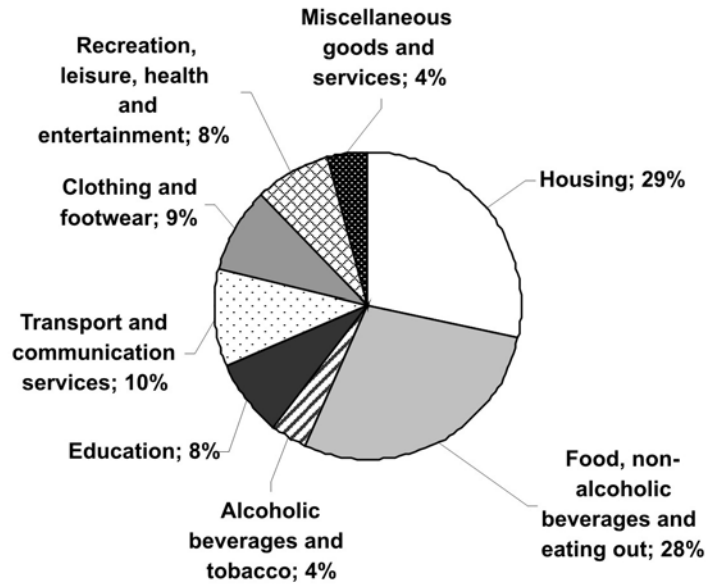


Figure 1. The average expenses of full-time students (N=100) per month, %

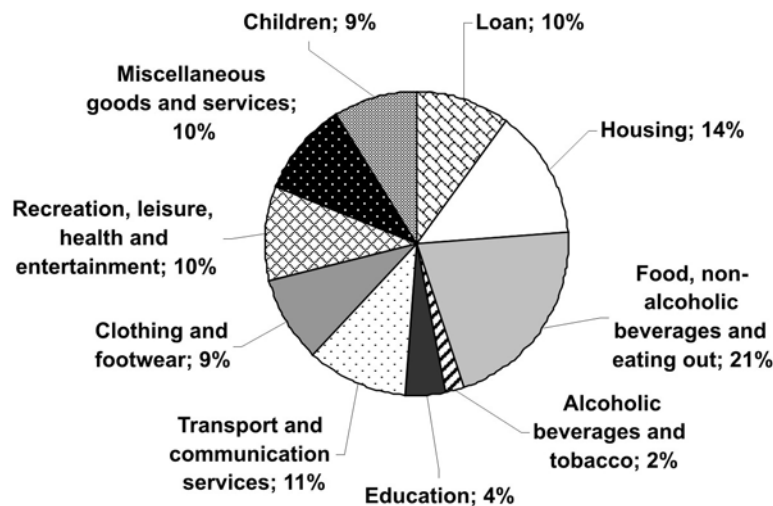


Figure 2. The average expenses of part-time students (N=33) per month, %

and did not carry the household expenses. Part-time students were better acquainted with household outlays and could evaluate the water cost of a leaking tap or the power consumption of home appliances in a standby mode.

The analysis of waste treatment demonstrated that many young people (62%) do not see the point in sorting domestic waste. The reasons indicated were too small payment for the sorting (38%), additional effort in separating waste (54%), shortage of storage room (42%) and unawareness (30%). Some of them, for example, believed that it is allowed to place wet or dirty paper and Tetra beverage cartons into garbage containers. Whereas domestic waste amount per one inhabitant is quite considerable in Estonia (375 kg) (Statistical...2009) and according to the Environment Programme it should be reduced to

250-300 kg. It is important to inform the students that sorting the domestic waste enables to win several things money-wise: clean refuse is suitable for sale as a raw material; the amount transported to the rubbish dump is reduced, which, in turn, decreases the cost of waste transportation and dumping ground payment.

To sum it up, Year 1 students' knowledge necessary for solving household management questions independently was insufficient. Most of them are not aware of basic expenditures of a household and have difficulties in balancing income and expenses. They do not know how to economise on water and energy consumption and do not have the skills to analyse the price/quality relationship of products. In addition, very little attention is paid to information on products' labels. Their expenses on study materials and food

are larger compared with part-time students and the biggest expense items are flat rent and public utility service payments. Additional outlays are related to free time activities. Lack of these skills is one of the reasons for the suspension of university studies. An in-depth treatment of economic topics is vital in secondary school to avoid these mistakes.

Financial self-management skills of part-time students (already working as teachers) are better, because most of them have a family and an experience of running a household. These skills are acquired in practical life lessons, difficulties and setbacks. Unlike Year 1 students, most of them are able to save some money in addition to balancing income and expenses. The content of their expenditures is somewhat different from their younger mates, which is connected first and foremost with the family needs (expenses related to children, common entertainment activities, etc.) Though their largest expense item is also housing is related to the loan in contrast to Year 1 students.

The common aspects of part-time and full-time students include paying little attention to labels on products' packets and interest in waste treatment.

Suggestions for modernisation of domestic science studies

C.A. Darling and K. Turkki (2009) emphasise that teaching about families involves not only *content* but also *practice*. To follow the principle, study of home economics should be closely related to everyday life. Though the current State Curriculum for General Education Schools (Põhikooli..., 2002) contains family economics as one of the subtopics, its actual treatment in school is unsatisfactory. The topic is dealt superficially and is not linked to other subtopics and everyday vital problems. The main reason is teachers' insufficient consciousness of the issue and lack of skill to integrate it into home economics studies. However, the implementation of such active learning methods as problem and project assignments, web-based learning, purposed field visits, and didactic games rather than filling out worksheets or traditional paperwork will modernise the study of economy related matters and motivate students. Learning experiences for youth and middle childhood should be real and concrete. In case of problem and project tasks their link to everyday life and analysis of the performed work are very important. E.J. Hitch and J.P. Youatt (2002) also point out that activities should allow youth to test their skills, stretch their abilities, and achieve success.

Topics for problem and project tasks can vary a lot covering different facets of household management (e.g. making a budget, price/quality relationship of goods, organisation of an event, planning a trip or a large-scale purchase, analysis of expenses, etc.) The budgets can be for a certain period (e.g. a month) or for a certain event (Leimann J., 2006). In practical lessons of home economics students can do a project task of planning a budget for a concrete event, conducting and analysing it. For example, celebrating a holiday of folk calendar,

e.g. Christmas, Shrovetide and others, which involves planning of activities and cooking traditional dishes. Another variant is an assignment to plan a café and to consider various expense items: food, cooking, advertisement, sales, etc. Through practical activities one can teach students to plan expenses and to understand that having a budget is as important as sticking to it. When solving the task, the primary or the so-called inevitable expenses should be pointed out and differentiated from less important subsidiary expenses. Thus students get to the understanding that there are expenses one cannot get away from and expenses one can compromise on. Such group work activities also teach students skills of cooperation, communication and self-expression in addition to the subject knowledge.

A good possibility to compare price and quality of products is an inquiry into one's consumer behaviour in choice of food. First of all, one charts what food products the family buys during a week and their cost. Later one studies the product's content, its producer and other information, reading the product's label. The next possible step is to analyse whether the product is environmentally friendly and to find reasons why exactly this product was chosen – whether due to its content, price, availability, lack of analogical goods, etc.

Smaller-scale project tasks may embrace personal financial decisions and their analysis. For instance, account of ten last purchases, irrespective of their price. Which of them did you want? Did you need? What thoughts were connected with every purchase? Are you satisfied with every purchase or have you regretted any of them? Similar assignments are propagated by numerous authors (Holbrook M., Van Horne S., 1992). Another exercise for developing critical thinking is the analysis of future purchases (Ryan J.S., 2006) when students are asked to make a list of things they would like to own and reasons for that. They read the list every week and ask themselves whether they still want the same things. If so, what do they plan to do to buy one of them? The presentation of results can take various forms: posters, comics, cartoons, charts and tables, stories, etc.

Didactic games (card, word and movement games) used in addition to project tasks is another way to activate the students (Resource handbook...2002; Salumaa T., Talvik M., 2004). For instance, a bingo game, where different terms of home economics are placed on the bingo grid and the cards with their definitions are called out; instead of terms there can be different packet marks on the bingo grid. Another variant is a domino game where the cards can, as in the previous example, contain terms and their definitions. Word games bring variety into the study work. One of the most popular ones is Alias, which gives students a possibility to express oneself in the frame of the topic, explaining, for instance, such words as 'budget', 'housing loan', 'environmentally sustainable consumption', etc. without using these words. Movement games can be quite simple, e.g. taking a standpoint about some statement, which requires going to a certain place in a classroom.

Examples of statements: 'I always consume reasonably', 'budget ensures right expenses', 'people spend according to their needs', etc. Students have to give arguments in favour of their opinion.

Outdoor Learning and Exploratory Learning are methods that are enjoying increasing attention in the whole world (Gilbertson K., et al, 2006). Outdoor Learning offers various opportunities such as field visits and excursions, project study, practical works and others. Field visit is a method, which helps relate theoretical knowledge to practical life. Its primary goal is to collect visual images and concrete facts obtained from immediate life experience. The study of a certain topic may include visits to different places – an organic farm, shop, or market. A task for research can be, for example, a EEK 35 lunch, with the aim to find products in a shop for cooking lunch at this price. If most food products are on sale in great amount, it can be organised as a group work, when a team chooses together ingredients for the lunch. An even more practical approach would be to cook the lunch and later to analyse the price of purchased food items, their healthiness, taste and the appearance of the ready made dishes.

Modern technology complements teaching and supports active learning, making it more effective and stimulating. Computer can be successfully used in problem and project study for creation, exchange and adjustment of study materials (e.g. study guides, worksheets, tests, visual aids); also for distant learning, which takes place via Internet, and for support study. Topics of family economics can be effectively taught web-based in secondary school as well as at the university, which enables students to acquire the knowledge of the subject in a sufficiently flexible, convenient, and mobile way without higher material expenditures. The shortcoming of web-based learning according to K. Kruse (2004) is, firstly, insufficient close contact with peers, which, in turn, influences the studies on the whole and determines a big number of dropped out students; secondly, study materials consist mostly of texts and pictures; and thirdly, the possibility of various technological problems. Tallinn University also offers a course dealing with fundamentals of family economics and consumer education in the e-study environment IVA (http://www.htk.tlu.ee/video/opmat/e_kursus_2008/matem_loodus.htm).

Approach to the topic for different age groups should consider both vertical and horizontal integration principles - following the level of 'I' in the first school stage, 'we' in the second stage, 'we and the world' in the third. Doing that, it is always important to analyse and evaluate the economic aspect of decisions and actions when dealing with different subtopics. Thus, for instance, in the first school stage one of the main topics can be 'my pocket money' or 'a present for my friend's birthday'; in the second stage it may be 'organising theme party in the class', 'class excursion', 'friends are coming to visit me'; in the third stage possible topics may include 'designing one's own room', 'participation in school fair, 'starting up a students' company', 'a trip to a neighbouring country', or 'applying for study grants'.

'My pocket money' embraces various aspects of home economics studies and other school subjects, e.g. a discussion whether to eat a school lunch or buy something from the school café (a possibility to choose different food products, their healthiness, cost, origin, etc). Another task can be a discussion about a toy (game) that is being advertised in the media, its popularity and giving reasons for one's wish to buy it. Organisation of a class theme party involves collecting information related to the theme, clarifying costs (room, music, entertainers, food, etc) and making a budget, coordinating decisions between school and home; in addition to that it also includes work division and coordination of activities before the party (preparation) and after the party (cleaning up). Organising a theme party can also take place as a project study encompassing very different subjects. For instance, a country theme party requires collecting information about the country's history (period, customs, etc), geography (location, influence of the environment), literature (outstanding representatives), home economics (national cuisine), involves art and music study, and motivates to use foreign language materials. Treatment of the topic in the third school stage allows implementing knowledge of most subjects. For example, in case of designing one's own room the basic knowledge of chemistry and handwork about material studies is put into practice. Students will also apply information obtained in physics lessons on how to place the equipment and appliances and to attach them to each other in the most efficient way, cutting down costs.

To summarise the suggestions, increasing implementation of active learning methods and various ways of studying will effectively improve students' motivation. When setting a task, one should consider integration inside the subject in question and between different school subjects.

Conclusions

It is necessary to make the studies more effective in general education schools to improve youngsters' knowledge of matters related to household management. Home economics is one of the most appropriate subjects for gaining the basic knowledge as its main topics are closely linked to economic issues and thus enable to create an immediate connection of the learned material to everyday life through practical activity. Considering the aforesaid, the project of a new State Curriculum for General Education Schools (coming into force in the school year 2010/2011) focuses on topics linked to economics and consumer education, and suggests integral treatment of these issues with the analysis of accompanying economic aspects of every activity or decision.

The study of economics has to cover all the school stages and continue in grown-up life to fulfil the growing requirements of society. As the State Curriculum, now being modernised, will bring results only in some years, it is necessary to proceed with teaching basics of family economy at the university stage too (the key words of the studies: efficient housekeeping, general ability to plan and analyse,

environmental friendliness, safety, etc.) At the same time it is vital to update the teaching of financial self-management to future teachers of home economics.

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Communication Resources to Improve Eating Patterns in Rural Areas

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Abstract. The authors describe a project aimed to improve health behaviour in the context of rural development by implementing a community network and using communication resources. The research has investigated the attitudes of inhabitants of a particular local area towards health and nutrition. The study included a sample of 200 participants whose responses were collected using a quantitative questionnaire, of which 20 were also investigated qualitatively by means of more in-depth interviews. The research was performed in a rural area near Timișoara.

Results show that social commitment is poor, and health and nutrition are not a typical lifestyle change priority for such people. The main sources of health information for these people include a doctor, television, and the family, while the sources neglected include the Internet, the pharmacy, and the education system. Only 16% of the people questioned considered that it would be easy to implement health information in their daily lives, possibly reflecting their ingrained habits and low incomes. As regards their reported eating behaviour, the results show that more than 50% of people daily eat white bread several times; rice and cake feature on the tables of 40% of the subjects several times a week; more than 50% of people eat margarine and drink coffee every day. They seldom or never eat whole grain bread, cereals, oil, vitamin supplements or organic products.

A local network was established to improve the level of health awareness and healthy behaviour in the community as a result of cooperation with stakeholders, the local council and the head teachers of the school and the kindergarten, by publishing articles on these topics in the local newspaper, improving meals the children receive in the kindergarten and the school, and organising local events on health issues.

Key words: eating behaviour, communication resources, community network.

Introduction

In recent years, the Eastern European countries have been experiencing a striking development of rural areas. Villages have begun to modernise and peripheral areas close to cities have become residential areas. Thus some rural areas now include both a part where people keep to the old customs and traditional methods of communication, and a new part which is modern, with a city-type lifestyle, with less involvement of residents in rural life but greater openness to outside opportunities.

Despite these changes in rural areas, some aspects of life there have remained underdeveloped and deficient. One of these aspects relates to health and everything connected to it: nutrition, healthy lifestyle, physical activity, hygiene etc. It is reflected in a high incidence of chronic diseases, e.g. type II diabetes, overweight, obesity and coronary heart disease (WHO 2003, WHO 2004). Romanian rural areas are proverbial for their plentiful food but unhealthy diet due to the sedentary lifestyle of residents and their lack of preventive health care behaviour. Unhealthy eating habits have been the rule here for many years and the authors have observed that these patterns are not changing there. To back up these statements the authors can point to the high number of deaths caused by cardiovascular diseases, in which unhealthy eating habits represent an aggravating factor.

An EU report of the world survey- *Empowerment of the European Patient, Options and Implications* - published in Brussels in March 2009 places Romania in the 30th place in terms of health information. The report considers that Romania provides its citizens with very poor information about health, even poorer than in other Eastern European countries. The aspects evaluated were patient rights, health information, technologies used in the health system, and the pay of health service professionals. The conclusion is that Romania needs to invest more in its health system and health education.

Traditional prevention measures and health promotion campaigns have not succeeded in reversing this situation and it seems unlikely that they will manage to do so in the future. Official health messages (including food information), where they exist, scarcely reach people in the normal course of their lives. Those who are deprived in socio-economic terms are particularly lacking in information and have a particularly unhealthy lifestyle.

When a rural area has reached that critical point in health care at which the supply of material resources such as safe and sufficient food, basic medicine, clean water and fuel is assured, social conditions and new communication strategies come to play a much more important role in promoting health. Social factors such as social cohesion, the role of voluntary services and social engagement cannot be influenced by traditional

preventive and health promotion initiatives. There is a need for innovative strategies in health promotion. These strategies need to initiate social processes and promote an idea of health as something integrated in the normal course of life. People should be supported in developing a sense that they are competent to live healthy lives, to manage their problems, that they are able to establish a healthy environment and that they are responsible for their own welfare. It means that the active role in health promotion has to pass from the expert and the provider of intervention to the recipient. Communication should not go from the outside to the inside but should rather be directed from the inside to the outside. It means that the given resources of communication of a local community have to be analysed, and the participation and involvement of the inhabitants guaranteed at the same time.

Both quality and quantity of health information influence consumer behaviour. Different outcomes are possible: the consumer can be confused by contradictory information, supported by helpful information or misled by inadequate information. Therefore the consumer needs basic skills and a good supportive communication network around them to help them perceive the right information in the right way.

Food marketing forms part of health information. It is important to establish people's competence to evaluate advertising messages as true or false by offering specific courses. People can be made resistant to deceptive food messages if their life skills are reinforced. The local network would be an appropriate structural environment within which to support good health competence.

Communication is an important basis for learning. People learn by communicating and reflecting on their lifestyle, their plans for the future and health knowledge. Hence the aim of this study is to improve health behaviour in the context of rural development by implementing a community network and using communication resources. The study is part of a European project financed by the European Community through a Grundtvig programme.

Description of the project

Research aim: Taking account of the variety of approaches observable in the European countries, the idea has arisen of starting a multinational project to develop new solutions to the problem of implementing healthy lifestyles in the local communities of different countries.

The project involves 10 partners from six countries: Germany, the United Kingdom, Sweden, Austria, Latvia, and Romania. It is financed by the European Union and covers a period of two years (2007-2009). The starting point of this project is the idea that the local community to which a person belongs is able to influence his/her level of knowledge regarding a healthy lifestyle and its implementation in everyday life.

The long-term objective of this project is the promotion of social cohesion and the stimulation

of civic spirit, which it does by addressing not just isolated groups but the community as a whole. The inhabitants will be involved in a health management programme and their specific health education needs will be analysed, a process that leads to self-analysis regarding one's lifestyle.

The project focuses especially on at-risk population, disadvantaged social groups such as the elderly and immigrants, which present an increased need for support. The idea behind choosing these groups is that they will become better integrated through the stimulation of participation and motivation.

The activities programmed during this project are subordinated to a general objective and to work objectives. The priorities are to capture the specific needs of each community (these depending on the socio-economic and cultural background) and identify suitable means of intervention as well as to promote communication between partners and the need to learn from one another within a broad multinational and multicultural context.

This qualitative and quantitative analysis serves as support for the elaboration of an intervention plan adapted to the needs of each specific community and thus different in each of the six partner countries. In order to evaluate the intervention efficiency, a new, post-intervention, evaluation was made identifying changes that had occurred in the population's perception of health education messages and their knowledge concerning a healthy lifestyle. Another criterion for the evaluation of the intervention, and, simultaneously, of the success of the project, is the level of community participation in the social information network. The intervention and the project may be considered a success if this level increases, and the local information network is maintained after the formal end of the project.

Methods

The project through quantitative and qualitative research has studied the attitudes of inhabitants towards health and nutrition. The study covered 200 households, which were investigated quantitatively, of which 20 households were also investigated qualitatively (by means of more in-depth interviews). The quantitative study involved 90 elderly (60-85 years) and 110 younger people aged between 18 and 60 years. The whole sample comprised 112 were female and 88 male, 96 pensioners and only 74 people working full time.

The study was carried out in the historically rural area of Dumbrăvița, which is a local community in Timiș, a Western county of Romania. It is located just north of Timișoara. As result of the city's development, many people from Timișoara have built homes in Dumbrăvița, thus developing a suburb into a city. This development has divided Dumbrăvița into two different areas: the old part of the community, which functions as a village, and the new very much more prosperous residential area. The new area has also raised the socio-economic status of Dumbrăvița.

Dumbrăvița has an area of 18.99 km² of which 112,497 m² is a residential area. It also has a lake

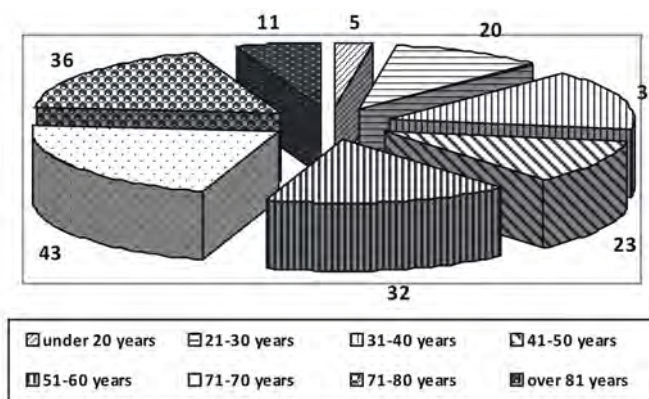


Figure 1. Sample age structure

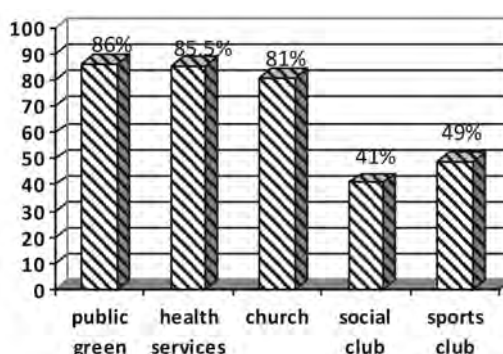


Figure 2. Aspects of life in Dumbrăvița considered "important" by respondents, %

and a forest. Socio-demographic data show a total of 2 915 inhabitants living in 1 417 households, with a density of 153.5 inhabitants/km².

Results and discussion

The research provides important information on health behaviour in Dumbrăvița. Some notable patterns emerge from the analysis of the provided responses.

Results show that despite the fact that people are pleased with the development of their village; their level of social commitment is poor. The general impression of their locality is very positive; they appreciate that the school, kindergarten, parks, local council offices and churches have been renovated and that they now have all the necessary utilities (gas, water etc.), and they feel safe living in Dumbrăvița. People in Dumbrăvița consider three areas of their locality to be very important. The public green area is important for 86% of people, health services for 85.5% and churches for 81% of people out of the whole sample. On the contrary, social and sports clubs are considered "not at all important". Although respondents generally have a very good impression of the area they live in, only 18% of those questioned considered it important to take shared decisions in the community. It is both symptomatic of and contributory to poor levels of civic communication. Despite the significant development of this rural area,

social and communication networks have remained underdeveloped.

The interest and involvement of the local administration in community health is very low; the community cohesion is also limited, and people do not consider that the administration should be taking initiatives to improve the community health. A very small share of people is involved in clubs or organisations, and hardly anyone turns to the local administration for health information or help.

Health is a "very important" consideration for 67% of people questioned, although only 47.5% of them evaluate their health as "good". They also think that someone's health is very much related to their destiny; most of them are also very fatalistic about health and believe that there are people who are sick and others who are healthy. At the same time health is associated with youth, and one cannot expect to be healthy after the age of 50. An interesting idea about health is that the elderly think it is easier for those who are young to keep themselves healthy, since life is not as difficult nowadays as it was when they themselves were young.

For most of the people interviewed "to be sick" means the need to go to the doctor or to keep to one's bed. A healthy person, by contrast, is someone able to work, and who does not have to take any pills. For most respondents taking care of their health it means avoiding anything that makes them sick,

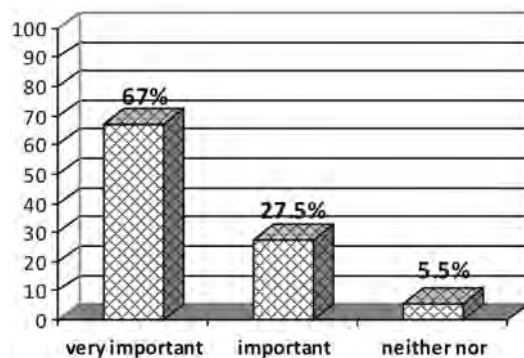


Figure 3. Share of respondents placing health in offered categories

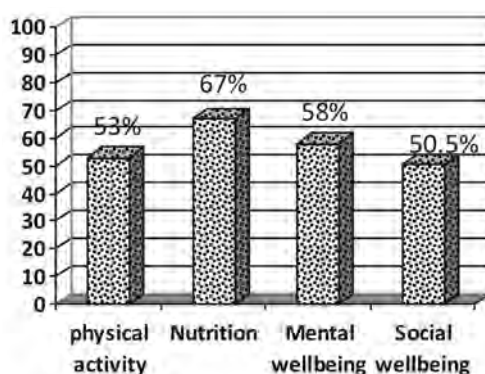


Figure 4. Share of respondents considering themselves to be well-informed about different factors conducive to health

especially bad food, keeping in shape by working and being careful about hygiene.

When evaluating their health status, most often respondents gave themselves 8 points out of a maximum of 10, where 10 signified "perfect health". The score was not always related to the number of health conditions people reported. Surprisingly, some of the people questioned who had been diagnosed as suffering from specific conditions evaluated their health status at an even higher level. It shows that they are not really aware of what good health means. As an example, high blood pressure is such a common condition in Romania that nobody mentioned it as a health problem. The people questioned did not know the difference between high and low blood pressure and were not consistent in taking prescribed medication (they either do not take it at all or discontinue the course). Their reasons for not following the treatment are that they think it is very expensive or that they are not even convinced they are sick, because different doctors give different diagnoses or treatments to the same patient.

Although the results convey a general impression across the whole sample that respondents feel themselves to be very well informed about health and health behaviour, there is much evidence in other responses to the questionnaires that the opposite is true. More than 50% of the studied group think that they are well informed about healthy behaviour concerning physical activity, nutrition, mental and

social wellbeing, however almost 80% of them do not know what the phrase "5 a day" means, while about 20% think that they can keep uncooked minced meat in the fridge for as long as seven days. 95.5% of people questioned consider that in order to be healthy it is important to wash one's hands after using the toilet and to keep the fridge at the correct temperature.

The low interest in communication networks in the community is also shown by the fact that people look for health information from internal sources (family, relatives, TV, and doctor) more than from external ones (neighbours, friends, courses, associations and clubs, local administration). About 66.5% of the whole group say that they get health information from the doctor, 63% from TV, and 50% from family members, with only 14% of people getting information about health from the pharmacy, 9.5% from their neighbours and 12% from friends. It is striking that not even one person mentioned the local administration as a provider of health information. Most people (about 80%) in the study group say that they ask for help if they have a problem concerning health: about 40% of a doctor or their family and only 1-2% through attending a meeting or a lecture.

The results regarding the sources of health information can be explained in terms of the structure of households in this area. In Dumbrăvița, most of the houses contain members of two or three generations and the maximum ratio between the number of

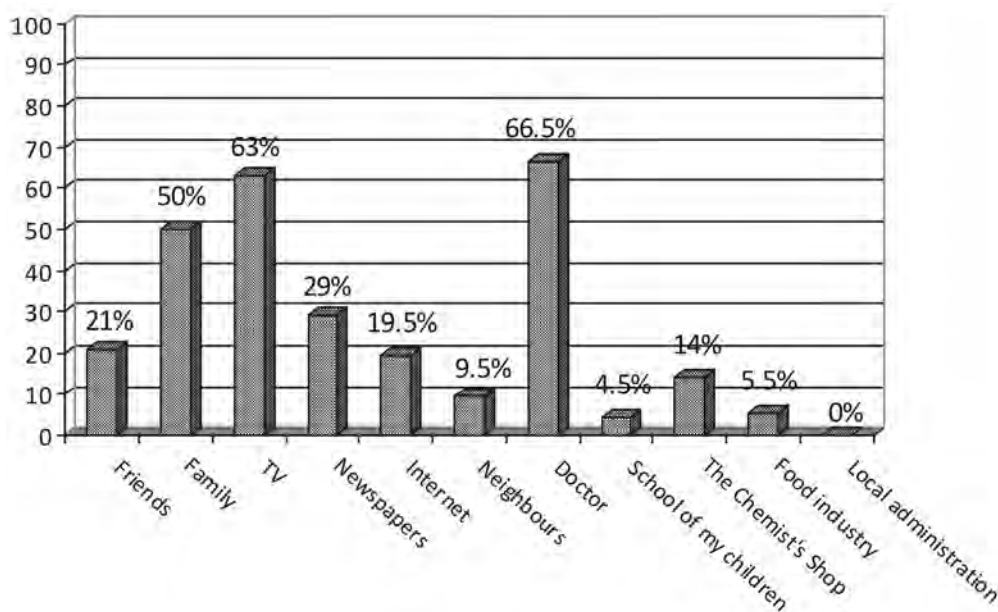


Figure 5. Declared sources of health information

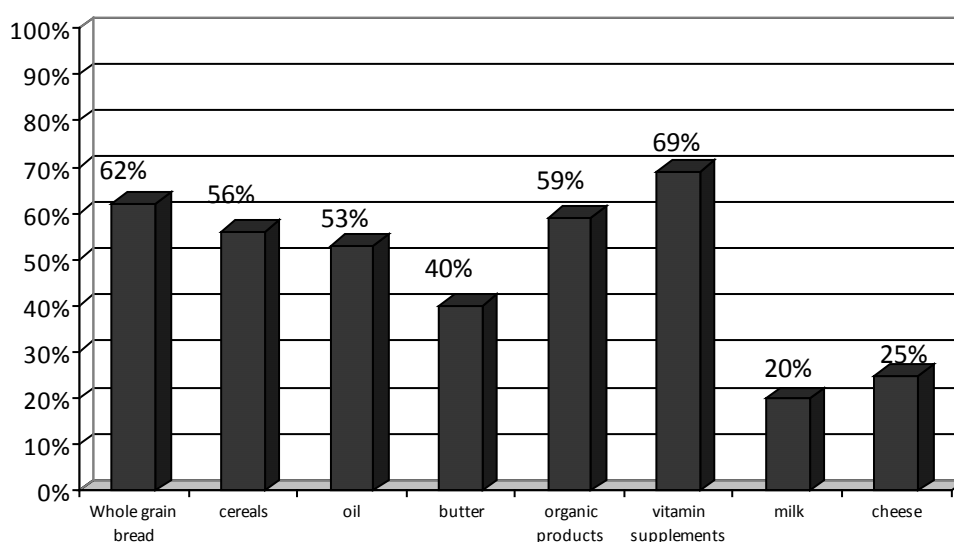


Figure 6. Products seldom or never consumed by the subjects

people living in a house and its number of rooms is 2:1. The extended family is therefore naturally the main network of support and information. Wider social networks are underdeveloped and there are no clubs or associations where people can interact and share their problems. Thus they are not used to seeking help from outside their households.

Only 16% of people claim that it is easy to implement health information in their daily life; a part of the explanation could be the fact that almost 40% of them think they would need to spend more money in order to buy healthy food.

Regarding nutritional patterns there are no specific rules such as having a programme for meals. Most respondents eat two or three meals a day, with

irregular snacks between them that are more mood (appetite) driven than "real snacks". Even people who declare that they follow a diet do not follow rules drawn up by a specialist; they simply give up certain sorts of food that they think are not good for them.

Coffee and cigarettes form part of the daily pattern for most respondents. Bad nutrition habits are supported by a variety of popular ideas that are treated as axioms: "You can't fight your appetite!" and "It's not the meal which makes you fat, but the crunching!"

As regards their eating behaviour, more than 50% of the studied group report eating bread several times a day; rice and cake appear "several times per week" on the tables of about 40% of respondents. Fifty per

cent of the whole sample report eating potatoes with a similar frequency. More than 50% of those questioned eat fresh fruit, vegetables, and margarine daily, while they consume whole grain bread, packet breakfast cereal, oil, butter, organic products, and mineral and vitamin supplements or wine seldom or never. About 20% of respondents seldom or never eat milk or cheese. The high share of people who reported consuming fruit and vegetables daily can be explained by the fact that the evaluation was made during a summer, when such produce was available from their own gardens. The authors assume that this tendency is not maintained during the seasons when respondents would have to buy such items.

Physical activity is an important aspect of health and the level of involvement in it gives the authors important information on how people take care of their health. People questioned in Dumbrăvița claimed that they were engaged in activities such as walking or cycling for a few hours a week, but these activities were not carried out with the explicit goal of improving or maintaining health. These are rather daily activities they need to do in their house or garden, or at their work. People tend to perform physical activities in their personal spaces such as garden or yard; 30% of the group disagreed with the statement that they were interested in active sports. There are no sports clubs or fitness centres in Dumbrăvița, and so people do not report this kind of physical activity.

The research results provide very important information about the need for health education in Dumbrăvița. The authors consider it a priority to develop and implement a health education programme, which takes account of the existing low level of social cohesion and which can encourage personal involvement in self-health care.

Conclusions: Improving health through communication resources

The authors have developed an intervention programme which aims to create social networks that will improve health behaviour through communication.

In order to create a complex communicational network, the authors involved people from various levels of the local administration. The authors obtained the participation of different local institutions and companies as sponsors and partners. The authors also obtained the support of the local mayor and the local administrative council for the study initiatives; these also provided rooms for meetings and expressed willingness to support the development of a local community network for promoting healthy living. Local churches and schools also helped with publicity. The teachers were involved in the organisation of a special meeting aimed at improving knowledge of healthy eating habits of children. Information letters sent to all inhabitants were used to publicise the programme of meetings.

The intervention programme consisted of five meetings with the community members. The authors' purpose was to offer information about healthy

eating behaviour and to stimulate the interest and participation of all members of the community in developing a local communication network to ensure the success of the intervention.

The first meeting:

- presentation of the project: outlining the purposes of the study initiative and short and long term intentions in the community;
- presentation of the results of the initial quantitative and qualitative studies regarding households' resources, limitations and needs for information;
- general information on healthy food: advice and rules for a healthy diet, presentation of the most healthy kinds of food (with examples); the enemies of a healthy diet.

The second meeting:

- presentation of the risks of unhealthy eating habits – discussion of the most significant conditions due to an unhealthy diet: diabetes mellitus, coronary heart disease and hypertension, ulcers, colitis;
- practical activities: measurements for the establishment of arterial pressure and body mass index, with practical advice for dealing with any health problems.

The third meeting:

- a healthy diet can often be more expensive. The authors therefore tried to demonstrate "how we can eat more healthily for the same money" and to present options for healthy eating behaviour.

The fourth meeting:

- discussion of the healthiest diet for children: the risks for child development of an unhealthy diet;
- advice to parents about how to create healthy eating habits in their children;
- practical activities with children: games to try to convince children of the benefits of a healthy diet.

The fifth meeting:

- final analysis of the intervention programme;
- discussion of the possibility of initiating local projects and a network for promoting health information;
- feedback from children: a short performance presenting the advantages of a healthy diet.

Almost 50% of the participants considered that the intervention programme had influenced their health behaviour significantly. The programme was successful and had a great impact on the community. As a result of the intervention programme some teachers from the local school introduced a number of topics on healthy behaviour and nutrition into their teaching programme. In addition, the kindergarten menu was modified to take account of the information given during the programme. The success of this intervention programme underlines its importance and also suggests how relevant such programmes are for Romanian communities. The social and communication networks developed during the intervention give it a high medium- and long-term sustainability in promoting and developing health behaviour.

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Access to Food and Health Information among Elderly People Living in Germany and the United Kingdom

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Abstract. CHANCE was a European wide project which investigated Community Health Management in specified local communities in Germany, Latvia, Romania, Sweden, Austria, and the United Kingdom (UK). The paper considers specific questions relating to access to food and health information by communities in both Germany (namely Kohlhaus and Südend in Fulda) and the UK (Liverpool South Central). Empirical data were collected from elderly people living in private households (65 people in the UK and 48 people in Germany) and used to assess the levels of comprehension of nutrition messages (by means of awareness of the "5-a-day" campaign), the wider sources of health information used, and the usage of information provided on food labels. The results show that elderly people from the UK were more aware of what the "5-a-day" meant compared with their German counterparts. There are three main sources of health information accessed by respondents in the UK. They are as follows: television (52.3%), doctors (50.8%), and newspapers (41.5%), which show that mass media have a role in conveying health information in the UK. In Germany, the most important source of health information is a doctor (89.6%). There is a relationship between the levels of education attainment in Germany and the likelihood of reading food labels. In the UK it was difficult to reach this conclusion as many respondents chose not to provide information on their education status. The research conclusions may be used to inform and enhance community health management in elderly populations in the future.

Key words: Community Health Management, elderly people, health information, nutrition labelling, "5-a-day".

Introduction

In the future, the largest number of European people will fall in the older age categories resulting in concomitant challenges to the European health care systems. In order to confront this challenge, it is important to develop strategies that improve the health and well-being of elderly people. Nutrition has an important influence on healthy ageing; hence, the nutritional status of elderly people needs to be analysed, evaluated and, where possible, enhanced. An individual's nutrition behaviour is complex and can be directly and indirectly affected by the living environment. Therefore, health promotion programmes need to consider elderly people and the contexts in which they live, in order to be successful. Sources of health information should be used effectively as resources for health (nutrition) promotion, and to counteract the fact that health messages can be seen as omnipresent and often

lead to irritation and anxiety on the part of consumers (WHO, 2008).

Research Objective

The CHANCE project "Community Health Management to Enhance Behaviour" was a project of ten partners¹ within the EU programme GRUNDTVIG/ "Lifelong Learning Programme" (December, 2007 – November, 2009). The project picked-up the proposition that an individual's health status is directly affected by environmental conditions (e.g. air pollution), individual behaviour (e.g. smoking) as well as also being indirectly affected by environmental conditions (infrastructure) that influence health behaviour (e.g. physical inactivity) (Freytag-Leyer B. et al., 2009). The objective of the project was to analyse how people living in different environmental contexts, perceive and handle health. Furthermore, CHANCE aims to compare specific resources and needs of different European communities in order to determine what

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contextual features of neighbourhoods matter with regard to health. Each partner in the project worked directly with selected communities (in a process that involved the direct participation of inhabitants and stakeholders). In addition to identifying the different national health information systems in each community (and how these systems are perceived in the local communities), each selected community was examined on its resources (including household resources) and surrounding environment (Freytag-Leyer B. et al., 2009). The analysis was undertaken with the aim of identifying the needs for health-related information in the communities as well as barriers for the best use of health messages.

Basis for the Research

The following hypotheses formed the basis of the analysis:

1. Elderly people are not necessarily aware of the current "5 a day" health message.
2. Information provided by the food industry (e.g. on food packaging) is of less significance than other sources of health information.
3. Elderly people do not always take account of food label information when they buy food.

Subjects involved in the Research

The empirical data collected by the CHANCE project categorised people into age groups (Table 2). For elderly people there were three categories: age 61-70, age 71-80, and above 80 years (Table 3). All people of these age groups who took part in the CHANCE project were at home living people. In Fulda, the total number of participants in the study was 186, of which 48 (25.8%) were elderly (61 years or older). In Liverpool, 170 participants took part in the study, of which 65 of them (38.2%) were elderly. The number of elderly participants in each of three categories: age 61-70, age 71-80, and above 80 years are shown in Table 1.

Table 1

Elderly Subjects in Fulda and Liverpool

Age groups	Fulda		Liverpool	
	Number of people	Share of the whole sample	Number of people	Share of the whole sample
61-70 years	23	12.4	32	18.8
71-80 years	19	10.2	27	15.9
81 and over	6	3.2	6	3.5
Total	48	25.8	65	38.2

Source: (Zimmerer, S., 2008), (Schlecht, I., 2009)

Table 2

Number of people and their knowledge of the "5-a-day" campaign in Fulda

What does "5-a-day" mean to you?	Age				Total in Percent
	61-70	71-80	81 and over	Total	
5 meals a day	3	5	1	9	18.8
5 bottles of water a day	1	-	-	1	2.0
5 fruit and vegetables a day	7	4	1	12	25.0
Don't know	11	8	4	23	47.9
Missing answer	2	1	-	3	6.3

Source: (Schlecht I., 2009) n = 48

Table 3

Number of people and their knowledge of the "5-a-day" campaign in Liverpool

What does "5-a-day" mean to you?	Age				Total in Percent
	61-70	71-80	81 and over	Total	
5 meals a day	-	2	-	2	3.1
5 bottles of water a day	-	-	-	-	-
5 fruit and vegetables a day	28	22	5	55	84.6
Don't know	4	1	-	5	7.7
Missing answer	-	2	1	3	4.6

Source: (Schlecht I., 2009) n = 65

Research methods

The research includes the analysis on the households' resources and the perception of health information in a community. A questionnaire for quantitative data similar in all cities was used as a research method. The questions were developed in collaboration with the international partners (see above) of the CHANCE project and were translated into the languages of the participating cities. The questionnaire consisted of 40 questions in the German version and 38 questions in the English version. The German version included two additional questions about the native language. Both versions contained questions relating to how well-informed people feel, their sources of health information and how they process and transfer that information into their daily lives. The survey in Germany took place during the summer of 2008, in the United Kingdom during the autumn of 2008; most questions were completed in the participants' homes. The Item Response Theory (IRT) was used as a base for statistical estimation.

Since the paper is based on a comparison between Germany and the United Kingdom, it considers only the data from Fulda and Liverpool. The analysis was done using software SPSS 15.0.

Results and Discussion

Nutrition Knowledge

Awareness of the "5-a-day" campaign was used to help determine if current nutrition messages were reaching the target groups.

Among the German elderly participants, the expression "5-a-day" was not well known, or was wrongly interpreted. Most of the older people (47.9%) reported that they did not know the meaning of "5-a-day" (Table 2). Twelve of the elderly participants (25.0%) answered the question correctly. One person thought the meaning of "5-a-day" was to drink five bottles of water a day, and nine persons related "5-a-day" to five meals a day. These findings point out that in Fulda awareness of the "5-a-day" message among the elderly is low.

In Liverpool the elderly people were better informed about the "5-a-day" message. The majority of the 55 elderly participants (84.6%) in Liverpool answered this question correctly (Table 3). Only two people (3.1%) answered the question incorrectly and thought the "5-a-day" referred to five meals a day. None of the elderly participants thought the "5-a-day" meant drinking five bottles of water per day. From all elderly participants, five reported that they did not know the meaning of the "5-a-day". Only three (4.6%) of the participants in the elderly age group did not answer this question at all. The non-responders included two people from the age group of 71-80 years, and one person was older than 81 years.

The results showing that the "5-a-day" message is received better among the elderly in Liverpool may reflect a more intensive campaign in the United Kingdom as a whole, or the way that the information in the United Kingdom is addressing elderly people more directly than in Germany.

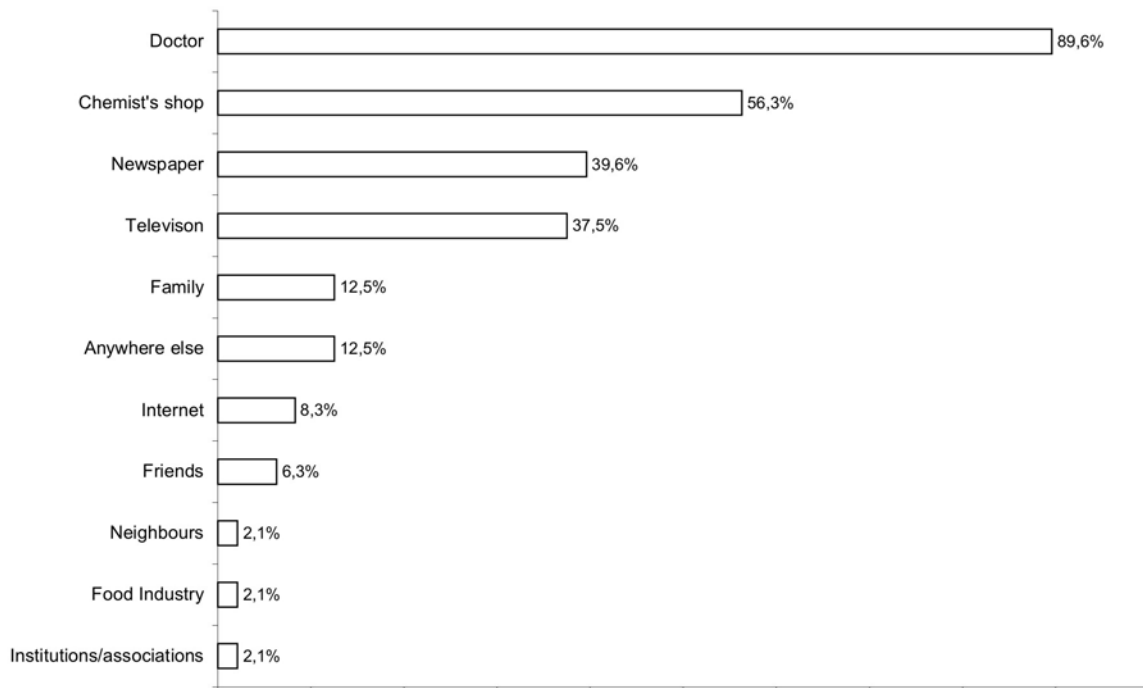
Sources of Health information

In Fulda the source of health information elderly people refer to most are the doctors (89.6%) followed by the chemists (56.3%). Newspapers and television are sources of health information used by 39.6% and 37.5% of the elderly participants respectively (Figure 1). All participants from the oldest age group (81 years and over) stated that they received their health information from their doctor. The Internet is not an important source for most of the participants. Only four participants from the age group of 61-70 years reported using the Internet as a source of health information. Neither local community organisations, state nor governmental organisations were identified as sources of health information.

In the United Kingdom the source of health information most frequently mentioned by elderly participants in Liverpool was the television - 52.3% (Figure 2). For many elderly people in Liverpool the doctor is also an important source of health information (50.8%), followed by a newspaper (41.5%), family (30.8%), and friends (24.6%). Elderly participants in Liverpool did not commonly use the Internet as a source of health information; only five elderly people reported receiving health information through this medium. Twelve of the participants (18.5%) identified the local community and local organisations as a source of health information. Four participants (6.2%) identified institutions and associations as sources of health information, and five participants (7.7%) identified the state and government (Figure 2). The results from Liverpool show that elderly people were receiving health information from a wide range of different sources.

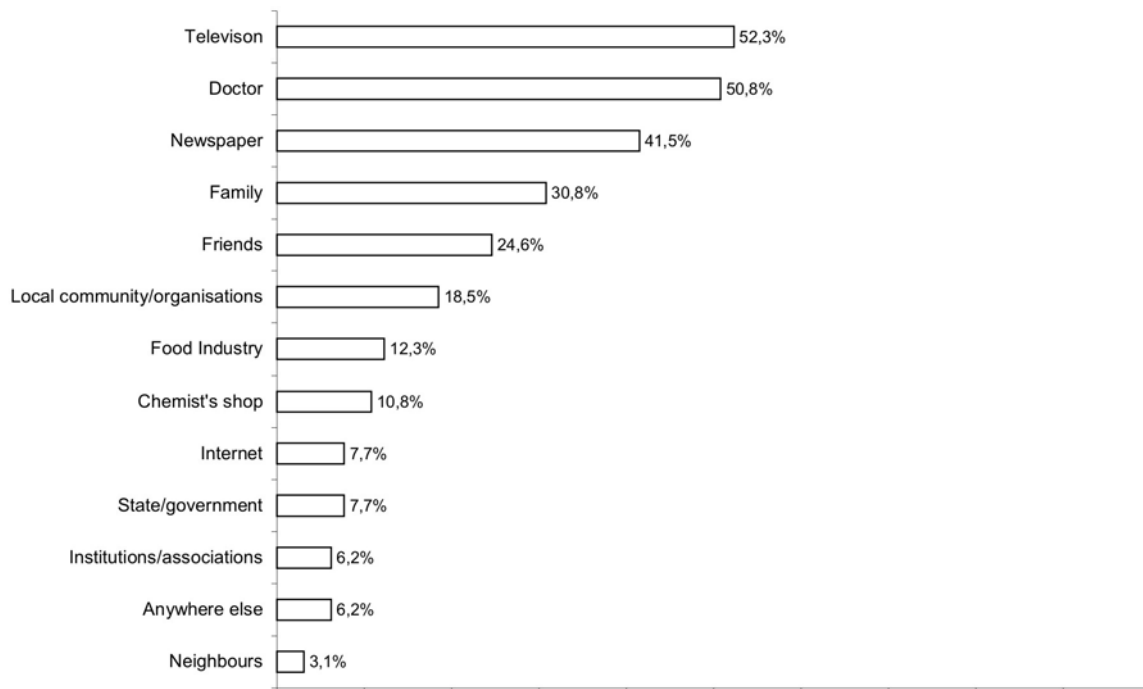
A comparison between the German and British elderly people participating in the CHANCE project shows that the elderly people in the two different communities tend to receive health information from different sources. In Fulda the doctor was a source more frequently used (89.6%) than in Liverpool (50.8%) (Figures 1 and 2). The source of health information most frequently mentioned in Liverpool was television, but this was only mentioned by 37.5% of the elderly German participants. Participants from both communities, in Fulda and in Liverpool, reported the newspaper as a source of health information in a similar way (the third most frequently mentioned source in both communities). However, the chemist's shop was mentioned by 56.3% of the elderly German participants whilst only 10.8% of the British elderly participants mentioned this source.

Elderly people from both communities reported that they did not commonly use the state or government as a source of health information. However, in Liverpool the local community was identified as a source of health information for 18.5% of the elderly participants; the German elderly participants did not identify the local community at all as a source for receiving health information. Family and friends were identified as an important source of health information by more of the elderly participants from Liverpool (30.8% and 24.5%) than the elderly participants from Fulda (12.5% and 6.3%).



Source: (Schlecht I., 2009), n=48, multiple answers possible

Figure 1. Sources of health information for elderly people participating in Fulda



Source: (Schlecht I., 2009), n= 65 multiple answers possible

Figure 2. Sources of health information for elderly people in Liverpool

Table 4

Number of elderly people reading the ingredient lists and nutritional information on food packages in Fulda

When you buy food do you read the list of ingredients and nutritional information?	Age				
	61-70	71-80	81 and over	Total	Total in Percent
Always	4	2	1	7	14.6
Often	3	5	-	8	16.7
Sometimes	7	5	1	13	27.1
Rarely	1	-	1	2	4.2
Never	6	6	3	15	31.2
Missing answer	-	-	-	3	6,2

Source: (Schlecht I., 2009) n= 48

Table 5

Correlation of education level with the reading of nutritional lists (relative frequency) in Fulda

Education Level	When you buy food do you read the list of ingredients and nutritional information? (in percent)				
	Always	Often	Sometimes	Rarely	Never
No graduation	-	12.5	7.17	-	-
Lower secondary school with graduation	42.8	37.5	61.5	100.0	66.7
O-level	-	25.0	15.3	-	13.3
A-level	57.1	25.0	7.7	-	20.0
Other	-	-	7.7	-	-

Source: (Schlecht I., 2009) n =45

Table 6

Number of elderly people reading the ingredient lists and nutritional information on food packages in Liverpool

When you buy food do you read the list of ingredients and nutritional information?	Age				
	61-70	71-80	81 and over	Total	Total in Percent
Always	4	2	2	8	12.3
Often	6	5	-	11	16.9
Sometimes	11	7	1	19	29.2
Rarely	3	7	1	11	16.9
Never	7	4	-	11	16.9
Missing answer	-	-	-	5	7.7

Source: (Schlecht I., 2009). n= 65

Nutritional information and food labelling

Findings from Fulda show that over a third of the elderly participants (31.2%) never read the ingredient lists or nutritional information on food packages (Table 4). Although thirteen participants (27.1%) sometimes read the ingredient lists and nutritional information on food packages, only seven of the 48 elderly people (14.6%) always read this type of information. There were three elderly participants

who did not answer this particular question. The findings indicate that reading food labels is not an important source of nutritional information among the elderly people in Fulda. These results support the findings that elderly people participating in the CHANCE project do not use the information provided by the food industry (such as the information on food packaging) as a source of health information (Figure 1).

When correlating the use of nutrition information on food packages to the individual's education level, results show that 66.7% (10 out of 15) of the elderly German participants who never read the nutritional information on food packages had achieved a lower secondary level of school graduation (Table 5). In contrast, 57.1% (4 out of 7) of the people who claim to always read information on the foods they buy were qualified with a qualification suitable for University entrance (A-level).

In Liverpool nearly 1/3, (19 of the 65 or 29.2%) of the elderly participants claimed that they sometimes read food labels (either ingredient lists or nutritional information on food packages) (Table 6). Eight elderly participants (12.3%) claimed they always read the food labels, and eleven participants (16.9%) reported that they never read the ingredient list and nutritional information on food packages (Table 6). Five of the elderly participants from Liverpool did not answer this particular question. Due to the difficulties collecting data related to the level of education, no correlation between reading food labels and education level could be made for the Liverpool participants.

The pattern of reported usage of ingredient and nutritional information on food packages is not too dissimilar between the German and British elderly participants. In Fulda 31.3% (14.6% + 16.7%, Table 4) of elderly participants reported either always or often using this information; in Liverpool 29.2% (12.3% + 16.9%, Table 6) of elderly participants either always or often used information on food packaging. Participants who reported that they sometimes used this type of information amounted to 27.1% in Fulda and 29.2% (tables 4 and 6) in Liverpool. In Fulda, 35.4% (31.2 + 4.2%, table 4) of elderly participants reported either never or rarely using information on food packaging; in Liverpool 33.8% (16.9% + 16.9%, Table 6) of elderly participants reported rarely or never using this type of information.

Conclusions and recommendations

Knowledge about the "5-a-day" health message was more familiar among the British elderly participants than the elderly German participants. This supports earlier findings (Ghebrehewet S., Stevenson L., 2003) that people living in Liverpool may be well aware of life-style factors that impact their health, even if they still need additional help to make life-style changes.

In Fulda the three sources of health information most frequently mentioned for elderly people are the doctor, the chemist's shop, and the newspaper. Although this was slightly different to Liverpool, where the three most frequently mentioned sources of information were the television, the doctor, and the newspaper; this perhaps highlights the importance of the doctor's practice as a means of distributing health information. It may well be that the data from Germany also suggest that there is a greater potential for pharmacists in the UK to be involved in the distribution of

health information and messages in the UK. Since it might not be clear how much nutritional information is provided by either doctors or pharmacists, perhaps there is a role for linking nutritionists or dieticians into the networks of doctors or chemists' shops.

Although nearly 20% of the elderly participants in the United Kingdom identified the local community as a source of health information, which contrasted with none of the elderly German participants identifying this source; this may well demonstrate the untapped potential of local communities, local organisations, and networks to be used to provide health information in both countries.

Although the data from Fulda suggest that there is a link with usage of information on food packaging (such as nutrition labels) and level of formal education attainment, the data from both Fulda and Liverpool suggest that approximately only one third of participants regularly (either always or often) use this type of information. It may be that there is further work to be undertaken to understand why the use of this type of information is not higher, and if there are particular issues here related to the elderly (e.g. text with small font sizes on food packaging). This may question the usefulness of using food packaging to convey health messages, despite the intention of the EU food labelling to inform and protect citizens (EUPHA, 2005). This is before any more detailed consideration of whether information read on food packaging or labels actually influences food choices.

In conclusion, the particular research has provided a better understanding of how different sources of health information may be used in different communities, in different parts of Europe. This will help better inform future strategies for improving health related information reaching communities, and using the information by communities in practice.

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Study of Elements of Pensioners Life Quality in the Regions of Latvia

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Abstract. The aging of population has become a problem in the whole Europe and is closely connected with the quality of life, which is a strategic goal on the national and respective regional levels. To ensure a worthy living for pensioners, the society needs innovative information to meet successfully the new political challenges. This publication is based on the discussion about the connection of micro-economic study of pensioners' quality of life with the self-assessment of consumption and economic situation. The research aim is the comparison of pensioners' consumption with economic situation in the context of the quality of life in the regions of Latvia. The object of the research is pensioners, who live in private homes in different regions of Latvia. The study uses anonymous data base of the representative Survey of Household Budget in 2008, done by the Central Statistical Bureau of the Republic of Latvia, with the sample including 1550 pensioners from all statistical regions of Latvia. The methods of statistical analysis and mathematical statistics have been used in the empirical processing of data and analysis. The research results prove the hypothesis that there are differences in the indicators characterising consumption of pensioners by different regions of Latvia and self-assessment of the economic situation. The comparison of regions shows that the main differences can be observed between the quality of life of pensioners living in Riga and those living in Latgale.

Key words: pensioners, the quality of life, research of subjective and objective quality of life.

Introduction

Challenges that appear due to the aging of population have placed the issues of the quality of life in the centre of political debate in Latvia and the whole European Union. Political actions in response to the social challenges will depend on the information and true understanding of life conditions and everyday experiences of the population. According to the development model of Latvia, called "People First" and the subsequent goal "The Quality of Life", the first prerequisite is the development of regions. In order to facilitate balanced development of regions and sub-regions of Latvia, the policy makers have defined one of the goals of regional policy of Latvia as securing equal life, work and environment conditions for the whole population. In order to enforce concrete measures, we not only need knowledge on the objective conditions or social situation, but also we need knowledge on how people feel under these circumstances, what are their concerns and priorities.

The quality of life is a complex concept that combines information about dimensions of the quality of life, where material provision is one of the main dimensions. The level of income, the corresponding level of consumption and perception of them are among the most sensitive factors that affect the quality of life during the process of aging. The conduct of pensioners as consumers determines their needs and possibilities.

The research question of the publication is whether pensioners as a social group have equal consumption possibilities in all regions of Latvia and the same perception of assessment of their household material condition? Thus, the hypothesis

is that there are certain differences in the indicators characterising consumption of pensioners by different regions of Latvia and self-assessment of economic situation. In order to prove the hypothesis, the aim of the publication is objective comparison of pensioners' consumption and subjective comparison of economic situation in the context of the quality of life in the regions of Latvia. The object of the research is pensioners that live in private homes in different regions of Latvia. The following tasks were posed in order to achieve the aim: 1) to define micro-economic study of consumption and economic situation as elements of the quality of life; 2) to investigate and compare objective indications of pensioners' consumption in different regions; 3) to analyse subjective self-assessment of economic situation, and to compare it across different regions of Latvia. The study is based on innovative approach – performing in-depth economic research of pensioners' the quality of life on micro and mezzo levels in the regions of Latvia.

Theoretical framework

The quality of life is an interdisciplinary concept. At the beginning of the 20th century, a British economist, representative of Cambridge school A. Pigou introduces the term to the economics, using it in his work "The Economic Theory of Well-being" (Liga M., 2006:33). Some believe the concept of the quality of life was created by an American economist and sociologist John Kennet Galbrait (Stepchenko A., 2006:144); yet Arthur Cecil Pigou (1887-1959) is believed to be the founder of the economics of well-being.

The concept of the quality of life can be applied to all the essential areas of life. Because of it there

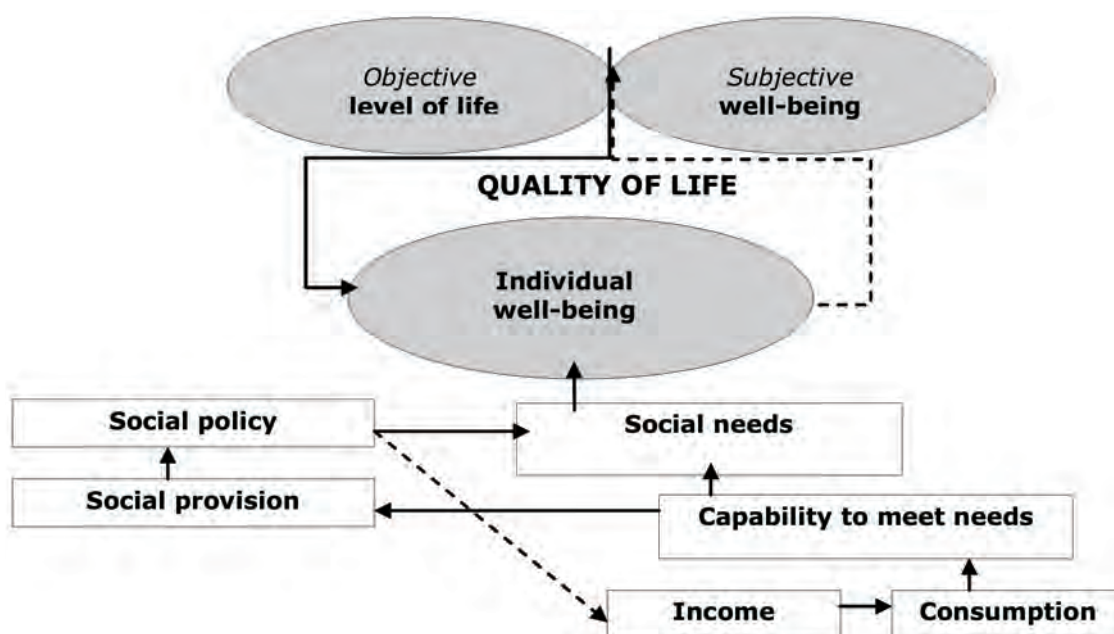
has not been a real consensus among the researches about a universal and comprehensive definition of the quality of life. This publication analyses economic aspect of the quality of life. One of the problems is connected to the fact that resources of any society are limited, while the needs usually are limitless affecting different social classes and countries of different levels of economic development. The meeting of human needs is closely connected to well-being. The main definition of a need encompasses an idea about subjectively perceived needs, needs that are defined by others, usually experts or professionals, and needs that surface in comparison with other people in the same social group (Manning N., 2008:26.-33.). As a result, needs are linked to the quality of life in a sense that when the needs are met, the level of the quality of life is high.

In this publication, the investigation is performed on the micro level (pensioners) and mezzo level (comparison of pensioners as a social group in different regions), based on the theory of needs. Theoretical discussions about the study of the quality of life usually examine both objective and subjective assessment, i.e. how people feel about themselves and their life. Pamela Abbott (Abbott P., 2007) acknowledges that we must consider citizens' subjective perception of their life and how capable they feel of making the necessary choices. In the publication the author's own definition will be used, which is that the quality of life is a reflexive, complex totality of the interaction of objective and subjective dimensions that reflects itself in a certain level of well-being, which depends on individual resources and knowledge. The author focuses on the view of quality of life from the perspectives of objective

level of life and subjective well-being that can be linked to the individual welfare which is determined by the capability of an individual, a household or a social group (e.g., pensioners) to meet their social needs (Figure 1).

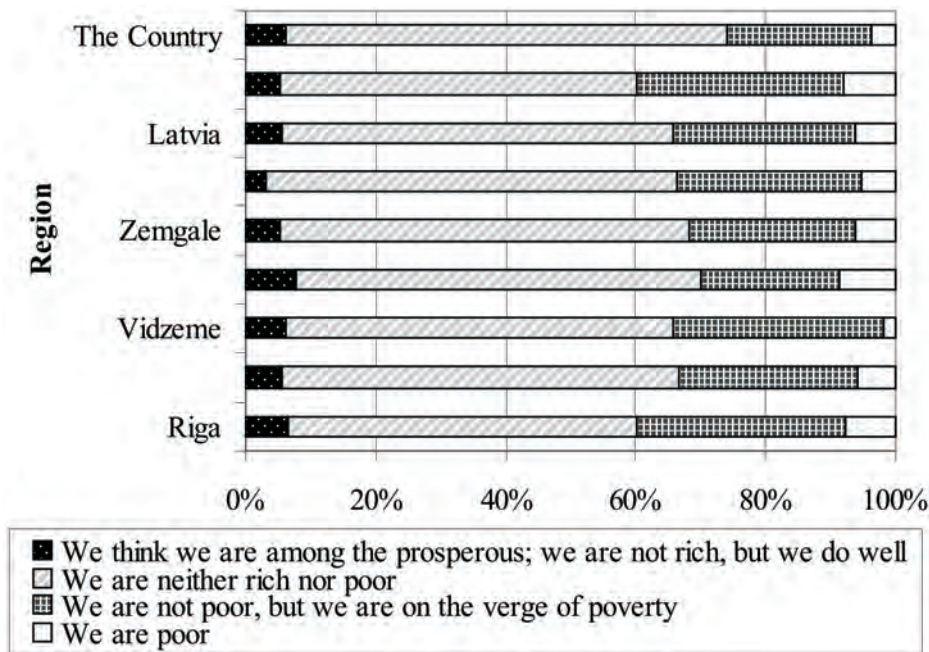
The fulfilment of needs is done by means of social provision that includes the system of household, market, non-governmental organisations, and the state social welfare. It is the state social policy legally and normatively controls the ensuring of the quality of life to each individual. So the micro-economic dimension of the quality of life can be studied as the influence of the interaction of levels of life and well-being on individual well-being that determines individual's abilities to fulfil social needs within the framework of the income and the corresponding consumption available to him.

The consideration of income available to the household is essential if we must assess the present level of financial resources of an individual and a household. Nevertheless, the information about the level of household income alone is not enough to understand the economic situation of households and the level of poverty or prosperity. Some additional indicators are used for this purpose that allow taking a look at circumstances in which people live, how they use the resources available to them, how they try to fulfil the needs, whether they live in poverty, and how they cope with the economic difficulties (Second European Quality of Life Survey, 2009). The publication concentrates on the study of pensioners' consumption and self-assessment of economic situation as the research elements of the quality of life (considering that pensioners can be defined as synonym to pension-age population, people older than 62).



Source: made by the author according to Costanza R., 2008, Manning N., 2008

Figure 1. The methodology of micro-economic study of the quality of life



Source: the author's research according to the anonymous data base of SHB CSB

Figure 2. The self-assessment of pensioners' material condition by different regions of Latvia in 2008 (n=1550)

Research methods

The empirical study is done, using anonymous data base of the representative Survey of Household Budget in 2008, done by the Central Statistical Bureau of the Republic of Latvia (further in the text SHB CSB) with a sample of 1550 households where the main breadwinner is older than 65 years. For the comparison of pensioners' quality of life, six statistical regions of Latvia are used where the number of respondents included in the sample is as follows: Rīga (334), Rīga region (236), Vidzeme (163), Kurzeme (224), Zemgale (256), and Latgale (337). The methods of statistical analysis (descriptive statistics) and mathematical statistics (correlation and regression analysis) have been used in the empirical processing of data and analysis. Besides, the author has used the methods of analysis and synthesis for the study of separate elements of the phenomena as well as formulation of the interrelated connections. The graphic method is used for the visual formatting of the results, but the abstract-logical method is used to interpret the results and draw the conclusions.

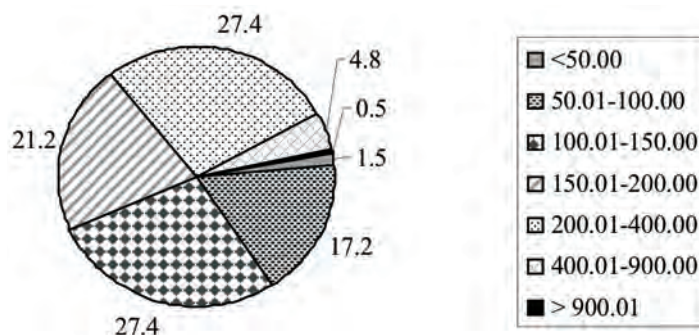
Research results

The self-assessment of pensioners' material condition is one of the most essential subjective indicators of the quality of life obtained through the representative survey (Figure 2).

In all the regions, except Latgale (3%), equally there are very few pensioners (5-6%) that associate themselves with the group which are considered to be well-off and prosperous, therefore enjoy a higher level of the quality of life. More than a half of pensioners (about 60%) assess themselves as

relatively belonging to the middle class stating that they are neither rich nor poor. The differences appear when we compare the opinion of the pensioners, who live in urban and rural areas; because 68% of pensioners living in the country and 13% less (55%) pensioners living in the cities believe that they have an average life – neither poor nor rich. Approximately a third (30-34%) of pensioners in all regions equally assesses themselves as being on the verge of poverty or poor. The tendency of lower assessment appears more in Riga and other cities comparing with the country. The pensioners assess their material condition as "we are on the verge of poverty" and "we are poor" in urban areas of Latgale, Zemgale, and Riga area in approximately 40% of cases. The overall conclusion is that almost twice as many pensioners (40%) in urban areas feel like being on the verge of poverty or poor than in the country (26%). Thus, the self-assessment of urban zone pensioners' material situation is more critical, which indicates a higher level of needs and higher living standard comparing with the rural zone pensioners. It is necessary to find out the consumption level of an individual person, who lives in a pensioner's household to do an in-depth analysis.

Comparing pensioners' monthly average consumption level for one household member (Figure 3), it is observed that the number of pensioners is divided into four big consumption expense groups, where the lowest reaches up to LVL 100 a month (17%) and the highest – up to LVL 200-400 a month (27%). Overall, 46.2% of pensioners' monthly consumption expenses are less than LVL 150 a month and for 67.4% of pensioners expenses are less than LVL 200 a month, thus more



Source: the author's research according to the anonymous data base of SHB CSB

Figure 3. The breakdown of number of pensioners into average monthly consumption expense groups per one household member in Latvia in 2008 % (n=1550)

than a half of pensioners get along on a sum that is smaller than the official subsistence minimum in the country. It indicates a very limited capability of pensioners to meet their need on a basic level and not being able to reach a worthy level of the quality of life.

The consumption structure of pensioners' household differs a little from the other households in Latvia, since the largest section of the expenses is the following (Table 1):

- 1) expenses for groceries (39.1%);
- 2) utilities and housing expenses (17.8%);
- 3) medical expenses (13.5%).

The other expense groups, including expenses for alcohol range between 5-6%. If we compare the structure of consumption expenses for one pensioner and average pensioners' household, significant

differences are not observed: a pensioner, who lives in a single person household spends a little more (about 3%) for food and transportation. Talking about entertainment (Table 1), a standard deviation indicates the stability of these ratings and the homogeneity of observed cluster. Comparing the regional cut, the research data show that pensioners in Latgale spend most of their income for food (43.6%), while pensioners in Riga spend a smaller part of income for food (33.7%) than in the other regions. Expenses for food include both purchased and self-produced food, which is expressed in money value.

The difference can be explained by the availability of large shopping centres and discounts for the pensioners, who live in Riga, comparing with Latgale region where a large part of pensioners have to

Table 1
The proportion of different consumption expenses in the whole consumption expense structure in the households of Latvian pensioners in 2008 (%)

Region	Rating	Positions of consumption expenses			
		food	housing	medicine	alcohol
Riga	average	33.7	21.0	11.3	4.5
	standard deviation	11.7	12.0	9.9	4.3
Riga area	average	38.9	18.8	12.4	5.5
	standard deviation	15.8	12.4	11.5	6.3
Vidzeme	average	39.3	16.1	17.9	5.5
	standard deviation	15.9	9.5	14.1	4.9
Kurzeme	average	38.5	18.4	13.3	6.8
	standard deviation	14.9	11.6	12.0	6.5
Zemgale	average	40.5	17.6	15.3	6.7
	standard deviation	17.5	10.9	14.4	8.0
Latgale	average	43.6	14.8	13.6	5.9
	standard deviation	16.6	10.2	11.2	6.2
Latvia	average	39.1	17.8	13.5	5.8
	standard deviation	15.7	11.4	12.1	6.2

Source: the author's research according to the anonymous data base of SHB CSB

Table 2

Monthly consumption expenses per one household member in the households of Latvian pensioners in 2008 (LVL; n=1550)

Regions	Monthly consumption expenses on one household member			In the country comparing with the city, %
	Latvia	The country	City	
Riga	212.44	*	212.44	*
Riga area	204.42	197.23	212.39	-7.1
Vidzeme	191.80	176.58	216.59	-18.5
Kurzeme	179.85	184.28	176.33	+4.5
Zemgale	182.47	177.76	187.25	-5.1
Latgale	163.10	157.23	170.86	-8.0
Latvia	188.66	176.21	197.53	-10.8

* data are not available

Source: the author's research according to the anonymous data base of SHB CSB

resign to the supply of mobile auto stores and the supply of stores with higher prices, but worse choice and lower quality of products.

In turn, Riga has the highest share (21.0%), but Latgale – the smallest (14.8%) share of housing expenses comparing with the other regions. Because of the well-developed infrastructure and housing conditions, housing maintenance costs in Riga are higher than in other regions; pensioners in Latgale live in houses with less amenities that do not require big expenses, e.g. for hot water, or heating.

Medical expenses make the largest part of expenses in the pensioners' households of Vidzeme (17.9%, which is more than housing expenses), but they are the smallest ones in Riga (11.3%). The differences can be explained by the prices of pharmaceuticals and services, which can be a lot friendlier for pensioners living in Riga, since there have not been any observed differences in the self-assessment of health among pensioners, who live in different regions of Latvia.

There are no essential differences in comparison of alcohol consumption across the regions; nevertheless, expenses are higher in Kurzeme and Zemgale (less than 7%), while in Riga - it is 4.5%.

One of the most stable and significant sources of income for pensioners' households is pensions, but many pensioners are not able to meet even their basic needs with pensions alone. Therefore the author uses the analysis of monthly consumption expenses for one household member for the comparison of pensioners' quality of life. The average monthly expenditure on one pensioner in Latvia in 2008 has been LVL 188.66 (Table 2), but the average pension in Latvia at the same period has been only LVL 140.79. The average monthly consumption expenses in Riga and Riga area on one pensioner are a little higher (LVL 204-212) than in the other regions. The lowest monthly consumption expenditure on one pensioner has been registered in Latgale (LVL 163.10). Pensioners from the rural areas report average consumption expenditure, which is by 11% lower than those of the pensioners, who live in urban area. The biggest

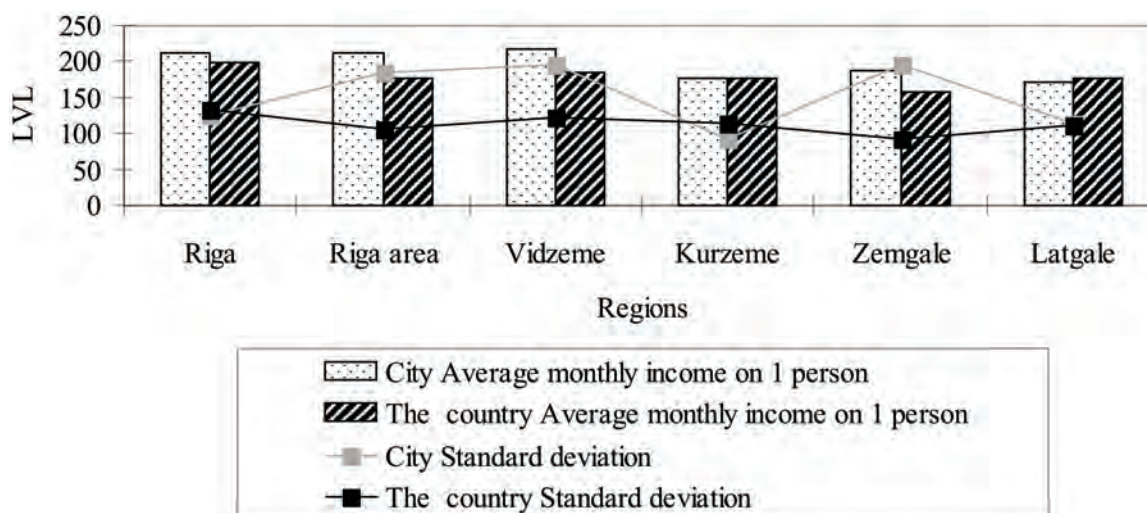
difference was registered in Vidzeme, where a pensioner, who lives in the country, shows by 18.5% smaller consumption expenditure than the one who lives in a city. In turn, pensioners living in Kurzeme rural areas spend by 4.5% more than those who live in urban areas.

Comparing consumption expenses in the cities and the country of Latvia, it can be stated that the average consumption on one person is approximately by 25% lower in Latgale, both urban and rural areas than in Riga statistical region. It means that pensioners of Latgale region have fewer chances to meet their basic needs in order to ensure a high quality of life.

There is the smallest difference in the area of pensioners' consumption expenses in towns of Kurzeme (standardised error LVL 92) and in Latgale (standardised error LVL 93), nevertheless it must be concluded (Figure 4) that expenditure fluctuates twice as little in the region than it does in cities. In Riga area, the average monthly expenditure is the highest – LVL 197.23 on one pensioner, while in Latgale, it is by 20.3% lower (LVL 157.23).

When studying consumption expenses, a tendency of inequality in the area of consumption expense level in Riga, Riga region and Latgale region became more and more obvious. It is a paradox that considering different levels of consumption expenses 40% of pensioners equally assess their material provision as being on a verge of poverty or being poor. This fact corresponds with the theoretical framework of the quality of life that focuses on the need to research the quality of life both objectively and subjectively.

The author emphasises a significant characteristic that agrees with the life quality definition presented by this publication, and it is that the quality of life depends not only on the resources, but on the knowledge as well. It is being tested whether there is a difference between consumption expenses of pensioners with different levels of education (Table 4). Table 4 clearly shows the dependency of consumption expenses on the level of education: the higher the education, the higher the requirements



Source: the author's research according to the anonymous data base of SHB CSB

Figure 4. Monthly consumption expenses per one pensioners' household member in the country areas and towns of Latvia regions in 2008 (LVL; n=1550)

Table 4
Monthly consumption expenses per 1 household member in groups of pensioners with different levels of education in Latvia in 2008 (LVL; n=1550)

Level of education and comparison of consumption expenses between levels	Monthly consumption expenses per 1 household member		
	Latvia	The country	Town
Higher	257.23	237.85	265.83
<i>Increase (LVL/month) against the next level</i>	<i>+69.37</i>	<i>+60.09</i>	<i>+71.22</i>
Secondary, professional	187.86	177.76	194.61
<i>Increase (LVL/month) against the next level</i>	<i>+29.54</i>	<i>+16.97</i>	<i>+37.43</i>
Professional, vocational	158.32	160.79	157.18
<i>Increase (LVL/month) against the next level</i>	<i>+4.70</i>	<i>+6.16</i>	<i>+4.56</i>
Elementary	153.62	154.63	152.62
<i>Increase (LVL/month) against the next level</i>	<i>+16.01</i>	<i>+7.89</i>	<i>+27.57</i>
Lower than elementary	137.61	146.74	125.05

Source: the author's research according to the anonymous data base of SHB CSB

for meeting one's needs. It tells us that income is higher for pensioners with higher education.

Also, the standard deviation (dispersion) is quite big, which means that higher education presents certain advantages in the area of income, but it is not the main factor, since there are cases when pensioners with higher education level have low income. Pensioners with higher and secondary/vocational education in towns (LVL 265.83 and LVL 194.61) indicate larger average monthly consumption expenses than those living in the country (LVL 237.85 and LVL 177.76), which also points out greater opportunities for urban inhabitants comparing with those living in the countryside.

The three main consumption positions for pensioners are groceries, housing expenses and medical expenses. For the sake of an in-depth

study, the author clarifies a connection between the priorities of consumption expenses (Table 5). The connection is being calculated using the equation:

$$y=a+bx \quad (1),$$

where:

- a** – average monthly consumption per one household member;
- b** – increase of expenses;
- x** – total amount of consumption expenses.

Comparing the correlation between total consumption expenses and expenses for groceries per one pensioner on average – in Latvia, in the countryside, towns, and also among

Table 5

The connection between total consumption expenses and expenses for groceries for one person of pensioners' household on average in Latvia in 2008 (LVL)

Indicators	Value of constants	95% credibility interval		Correlation coefficient
		The lowest limit	The highest limit	
Latvia	39.71	37.27	42.14	0.533
	0.133	0.122	0.143	
The countryside	32.29	24.11	40.48	0.580
	0.189	0.168	0.209	
Towns	41.26	37.14	45.39	0.533
	0.112	0.101	0.124	
Riga	33.00	28.13	37.88	0.636
	0.151	0.131	0.170	
Riga region	46.45	40.31	52.59	0.516
	0.111	0.087	0.134	
Vidzeme	41.23	33.00	49.46	0.513
	0.131	0.097	0.165	
Kurzeme	29.76	23.71	35.82	0.632
	0.179	0.150	0.208	
Zemgale	46.96	41.21	52.72	0.420
	0.089	0.065	0.113	
Latgale	31.04	25.16	36.92	0.578
	0.201	0.171	0.232	

Source: the author's research according to the anonymous data base of SHB CSB

Table 6

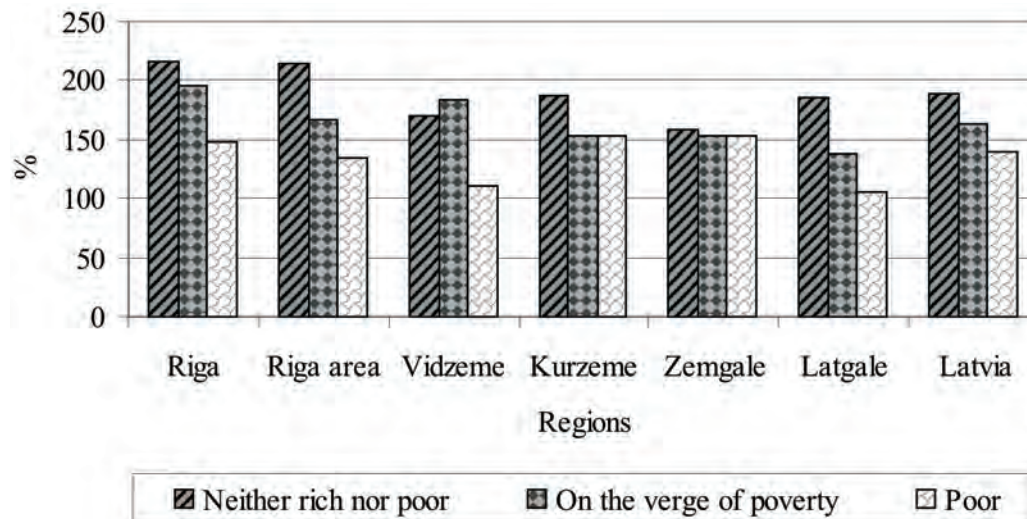
The correlation between total consumption expenses and housing expenses per one person in pensioners' household on average in Latvia in 2008 (LVL)

Indicators	Value of constants	95% credibility interval		Correlation coefficient
		The lowest limit	The highest limit	
Riga	20.60	15.30	25.89	0.408
	0.089	0.067	0.110	
Riga region	23.97	19.31	28.64	0.299
	0.044	0.026	0.062	
Vidzeme	14.26	10.56	17.95	0.549
	0.065	0.049	0.080	
Kurzeme	19.39	13.97	24.81	0.272
	0.056	0.030	0.082	
Zemgale	21.71	17.88	25.54	0.197
	0.026	0.010	0.042	
Latgale	11.41	8.23	14.60	0.366
	0.061	0.044	0.077	

Source: the author's research according to the anonymous data base of SHB CSB

different regions – in 2008 (Table 5), it must be concluded that with the exception of Zemgale region ($R=0.420$), where the correlation is weak, in the rest of territories, the correlation is rather strong. It can be argued with 95% credibility that the average consumption of food per one pensioner

in Latvia ranges from LVL 37.27 to LVL 42.14, in the countryside – from LVL 24.11 to LVL 40.48, but in towns comparatively – from LVL 37.14 to LVL 45.39. The average food consumption in Latvia is LVL 39.71 a month, but the regression coefficient of 0.133 shows the increase of food expenses, thus



Source: the author's research according to the anonymous data base of SHB CSB

Figure 5. Pensioners' average consumption level per one household member in different groups of economic self-assessment in the regions of Latvia in 2008 (n=1550)

indicating the increase of needs. The results demonstrate that there is a greater need for food in Latgale (0.201), Kurzeme (0.179), and in the countryside overall (0.189). The lowest level of average monthly food consumption expenses per one pensioner is in Kurzeme (LVL 29.76), in Latgale (LVL 31.04), and in Riga (LVL 33.00), which means that pensioners get along on less than LVL 1 per day. However, pensioners in Zemgale (LVL 46.96) and Riga region (LVL 46.45) spend more on food – approximately LVL 1.50 a day. Besides, in Zemgale (0.089) comparing with other territories, there is the lowest need for food, which is confirmed by the low regression coefficient of expense increase.

When giving a description of pensioners' consumption across the regions, it must be concluded that there is a weak correlation between total consumption expenses and housing expenses (Table 6) in all regions, except Vidzeme ($R=0.549$) that shows a fairly strong correlation, so we can speak only about a tendency.

The highest housing expenses per one pensioner on average are observed in Riga region (LVL 23.97) and in Zemgale (LVL 21.71), while in Latgale the housing expenses are just about a half (LVL 11.41); in Vidzeme, the housing expenses are also lower (LVL 14.26). In all the regions, the regression coefficient of expense increase is equally low, which indicates a smaller need to cover housing expenses.

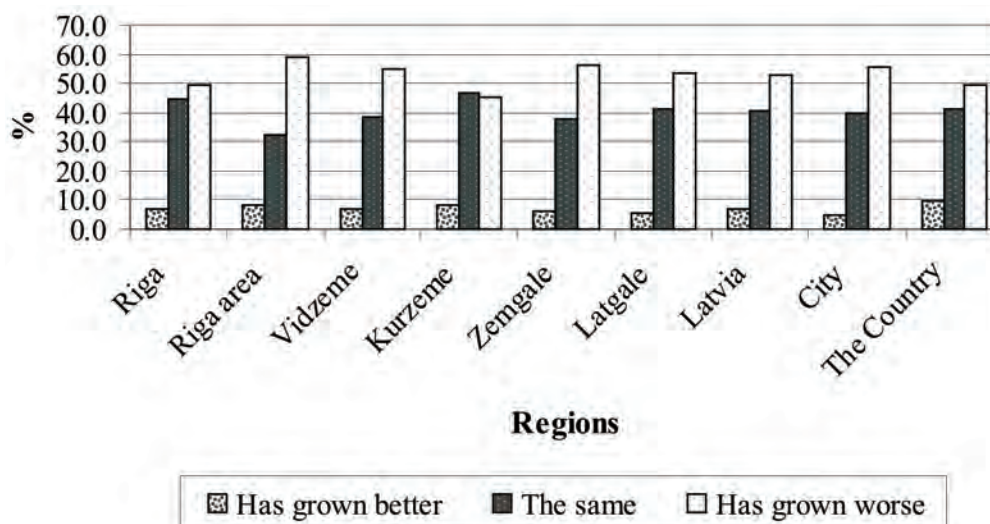
When researching the quality of life, it is essential to seek out a connection between objective and subjective assessment of its measurements. The analysis of pensioners' average consumption level per one household member in different groups of economic self-assessment in the regions of Latvia indicates that pensioners, who live in Zemgale, Kurzeme, and Riga consider themselves poor when their average monthly income is LVL 148-154 per one household member, in Latgale – when the income is

LVL 105, in Vidzeme – when the income is LVL 110 (Figure 5).

In Zemgale, consumption expenses do not determine the gradation of pensioners' subjective assessment, since consumption expenses are similar in all the groups. In Riga, those pensioners, who make up the average gradation of economic self-assessment, spend approximately 23% more than pensioners in other regions. Experts of Central Statistical Bureau of Latvia believe that the total self-assessment of material condition of all household in Latvia compared with 2007, has not changed significantly. When answering the question "How has the economic situation of your household changed lately?", only 12% of households admit that it has grown better; 41% of household believe that the economic situation of their household has remained the same, while 47% of respondents think that it has grown worse (Main Results of the Study of Household Budget., 2008). The proportion of self-assessment has not changed, but the situation when almost half of the population consider their situation to have grown worse must be studied in depth. The self-assessment made by pensioners as a social group is a little more negative (Figure 6), because 53% of pensioners in Latvia, int. al. more in towns (55.4%) than in the country (49.1%) believe that the economic situation has grown worse. The analysis of data across different regions shows that there are more pensioners, who believe that the economic situation has worsen in Riga region (59.3%) and Zemgale (56.3%), in Kurzeme, there are 45.1% of those.

Conclusions

The quality of life, when seen from the micro-economic standpoint, shall be studied as an influence of interaction of levels of life and well-being on the individual well-being, which is determined by an individual's capability of meet his/her social needs using his/her present



Source: the author's research according to the anonymous data base of SHB CSB

Figure 6. The assessment of changes of pensioners' economic situation in different regions of Latvia in 2008 compared with 2007 (n=1550)

income within the framework of corresponding consumption.

The study of objective consumption of pensioners' the quality of life and the subjective assessment of economic situation indicates certain differences among pensioners, who live in different regions, which points out the necessity of some efforts in order to balance out the development of regions. The main differences in the area of pensioners' consumption as an element of the quality of life exist among Riga, on the one hand, and Latgale and the other regions, on the other hand. A tendency to have a lower economic self-assessment can be seen in Riga and other towns, compared with the country. Pensioners with different levels of consumption expenses which are higher in Riga regions give a similar assessment of their material provision calling it as being on the verge of poverty or being poor, which affirms the assumption that the study of life quality must include not only objective indicators, but subjective well-being as well. Pensioners' economic situation in Riga and Zemgale region as well as towns is getting worse in a greater degree than in other regions and in the country.

One of the main objectives of balanced and sustainable development of Latvia regions is to provide equally high quality of life for pensioners in all the regions, both rural and urban areas, so it is necessary to continue with in-depth research in order to develop recommendations for further improvement of regional plans and corresponding documentation.

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Patērētāja uzvedības izmaiņas mūsdienų apstākļos Change of Consumer Behaviour Nowadays

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Abstract. Change in consumer behaviour can be caused both by exogenous and endogenous factors being able to lead to various problematic situations. The aim of the paper is to theoretically justify and empirically examine the motivation of consumers for action. The paper presents a theoretical discussion on the causes of change in consumer behaviour, motivation, and possible consequences. The research focused on the empirical examination of the causes of changes in consumer behaviour and motivation in Latvia related to choosing food products and eating habits. A questionnaire survey was conducted in a way of structured interview to obtain data. The data were processed by the methods of statistical analysis. As a result, it was concluded that the change in consumer behaviour occurs not only due to financial conditions, but it is also related to a change in the personal life cycle, health problems, or a change in consumer opinions.

Key words: consumer behaviour, household, consumption, stocks.

Ievads

Introduction

Mūsdienās ir maz tādu vajadzību, kuras nevarētu apmierināt ar tirgus preču un pakalpojumu palīdzību. Pieprasījumu veido ne tikai nepieciešamība novērst dziņas, alkas (piemēram, izsalkums, slāpes, aukstums), bet arī iedvesmas meklējumi, lai novērstu garlaicību un lai izjustu baudu (Scitovsky T., 1977). Klasiskajā ekonomikas teorijā vajadzības tiek definētas kā nepietiekamības sajūtas, kad kaut kas pietrūkst, kā neapmierinātības stāvoklis, kuru būtu jānovērš. Modernajā pārpilnības ekonomikā – vajadzības definē kā sajūtas plašā intervālā no garlaicības līdz baudai, lai tās novērstu vai arī pastiprinātu.

Katrs patērētājs atrodas izvēles priekšā un viņa izvēle ir atkarīga no situācijas mājūtibā, viņa nostājas, attieksmes un vērtību sistēmas jeb daudzveidīgajiem faktoriem, kurus var sakārtot sekojošās grupās: finansu (piemēram, darba dienas ilgums, kredīti, parādi, virsstundas, bērnu izglītošanas laika saīsināšana); veselības (piemēram, veselīgi ēdieni, slimības); ekoloģiskie (gaisa, ūdens, augsnes, floras un faunas piesārņojums); sociālie (ģimene, kaimiņi, jaunā paaudze u.c.).

Tiekme patērēt vairāk un vairāk, ņemot vērā daudzus patērētāju ietekmējošos iekšējos un ārējos iepriekš minētos apstākļus novedusi, piemēram, ne vien pie kredītiem, bet arī neapdomīgiem parādiem ar ilgstošām sekām, īpaši ekonomiskās lejupslīdes apstākļos. Krīzes situācija ir viens no visefektīgākajiem apstākļiem, kas liek patērētājiem pārdomāt savu rīcību. Ja pirms tam pieaugošie ienākumi nelika aizdomāties par savu izvēles motivāciju un kritiski novērtēt pieaugošo patēriņu, tad nenomaksājumu parādu gadījumos nākas pārdomāt dažādus iekšējos un ārējos apstākļos.

Ja mārketinga uzdevums ir pamodināt jaunas baudas, iestāstīt, ka piedāvātā prece noteikti patērētājam nepieciešama, tad mājas ekonomikas

uzdevums ir mācīt pamatot savu izvēli ar kritisku pieeju, novērtējot savu uzvedību no ekonomiskiem, sociāliem, ekoloģiskiem, veselības un ilgtspējas aspektiem. Modernais patērētājs kritiski un lietišķi pieiet savu vajadzību un patēriņu novērtēšanai. Saprātīga uzvedība tiek uzskatīta ne vien kā pareiza, bet arī postmoderna. Mūsdienų apstākļos ir svarīgi attīstīt un veidot tehnoloģijas jeb algoritmus, lai jaunajam patērētājam varētu atvieglot kritisko izvēles ceļu.

Darba **mērķis** sniegt teorētisku un daļēji empīrisku ieskatu patērētāja uzvedības maiņas cēloņos un izpausmēs mūsdienų apstākļos.

Darba uzdevumi: 1) izvērst teorētisko diskusiju par patērētāja rīcības motivāciju un nepārdomātās rīcības sekām; 2) empīriski pārbaudīt patērētāja iepirkšanās un ēšanas paradumu maiņu veselīga dzīvesveida aspektā.

Pētījuma objekts patērētāja uzvedības mainīgajos ekonomiskajos un dzīves cikla apstākļos. Pētījuma priekšmets – patērētāja iepirkšanās un ēšanas paradumu maiņa Latvijā krīzes apstākļos.

Darba izstrādē izmantotas monogrāfiskā, abstrakti loģiskā, grafiskā, analīzes un sintēzes metodes. Datu iegūšanai socioloģisko pētījumu aptaujas metode strukturētās intervijas veidā, datu apstrādei statistiskās datu apstrādes metodes: frekvences, korelācijas sakarības.

Teorētiskā diskusija

Theoretical discussion

Patērētāja vajadzības atspoguļojas viņa mērķtiecīgā rīcībā. Augot labklājībai un darba dalīšanai sabiedrībā, patērētāja pieprasījuma atspoguļošanai modernajā sabiedrībā var pieiet divos aspektos, kurus pēc mērķa var klasificēt kā abstrakto un konkrēto.

Pirmkārt, var kritizēt pieprasījuma segšanas pamataspektus tirgus sistēmā. Taču šajā gadījumā vienīgi patērētājam pašam jāatstāj izvēle, taču parādot, kādas konkrētas sekas

gaidāmas no noteikta veida uzvedības, kurai motivāciju varam klasificēt kā:

- 1) orientēšanos uz tirgu mājsaimnieciskās ražošanas vietā. Arvien vairāk mums ir āraprūpes mājturības, pašaprūpes un daļaprūpes mājturību vietā (Schweitzer R., 1976, Eglīte A., 2009).
- 2) orientēšanos uz mantu un lietu, nevis uz aktivitāti un darbību. Tā saucamais „brīvā laika piedāvājums” orientējas uz dažādiem ķermeņa atpūtas pakalpojumiem un lietām (SPA salons, trenāžieri, sulu spiedes, virtuves kombaini, ergonomiski matračī, segas).
- 3) izvēli no saražotā nevis nepieciešamā, respektīvi, patērētājs izvēlas no tā, ko ražotājs piedāvā, nevis kas pašam patiešām nepieciešams.;
- 4) egoismu, nevis solidaritāti. Ar to saprotot mirkļa iegribu apmierināšanu, nedomājot par nākotnes sekām. Patērētājam ir nosliece, tieksme acumirkļīgas vajadzības likt savu prioritāšu augšgalā, neņemot vērā citu intereses (ģimenes locekļu, kaimiņu, vides vai nākošās paaudzes intereses);
- 5) pirkšanu nevis vēlēšanos un nogaidīšanu. Patērētājs ir orientēts katru jaunu vēlēšanos iespējami labi piepildīt, tā vietā, lai mazliet paciestos, ja kaut kas trūkst (Maslow A. P., 1981).
- 6) prieku laimes vietā. Patērētājs cenšas rast apmierinājumu materiālo labumu gūzmā, nevis dzīvot jēgpilnu, harmonisku dzīvi. Laime nav šķietama paradīze ar maksimālu prieka izpausmi, bet ikdienā, kur dominē cilvēka dzīves trauslā esība (Bartelt M., 1978);
- 7) pirkšanu pelnītas atzīšanas vietā. Patērētājs pūlas gūt atzīšanu – demonstrējot augstu patēriņa līmeni, parādot, cik daudz var atļauties. Patērētājs pērk tā vietā, lai atzītu paša veidotu produktu vai paša veiktu darbu (Bartelt M., 1978).
- 8) hedonismu dabiskuma vietā. Patērētājs cenšas gūt baudu un izjust piesātinājumu tā vietā, lai no tām atturētos, līdz ar to paliek aizvien atkarīgāks no tirgus piedāvājuma
- 9) iekšējo vajadzību traktējumu visaptverošā derīguma vietā. Iepērkoties patērētājs interesējas tikai par sava iekšējā derīguma palielināšanu, kas var novest atpakaļ pie nākamajām vajadzībām un jauna pieprasījuma rašanās, nevis pie ārējās vajadzību samazināšanas līdz minimumam, piemēram, palielinot darba laiku uz brīvā laika rēķina kam sekojošās veselības un vides problēmas.
- 10) Patērēt – uzkrāšanās vietā. Patērētājs uz naudu kā uz ienākumu avotu, nevis kā uzkrāšanas līdzekli. (Beier U., 1999).

Īpaši uz patēriņu ir orientējusies ASV sabiedrība, kur 70% no IKP sastāda privātais patēriņš (Vācijā 59%, Latvijā 64,5% 2008. gadā). Amerika ir tā valsts, kuru jau paaudzēm ilgi rotā kilometriem garās iepirkšanās ielas, milzīgi tirdzniecības centri un agresīva reklāma. Ja amerikāņu ietaupījumi vidēji sastādīja 7% no rīcībā esošā ienākuma, tad 2004. gadā noslīdēja līdz 1% un 2005. gadā tie

bija rakstāmi ar negatīvu zīmi. Salīdzinājumam 2004. gadā Vācijā ietaupījumi sastādīja 10,9%, Japānā 7,4%. Latvijā kopš 2001. gada ietaupījumi rakstāmi ar mīnusa zīmi. Turpretim strauji attīstošās valstis Indijā 24,3%, bet Ķīnā pat 25,2% ietaupījumi no rīcībā esošajiem līdzekļiem. (Otte M., 2009; Ziņojums par tautsaimniecības... 2009)

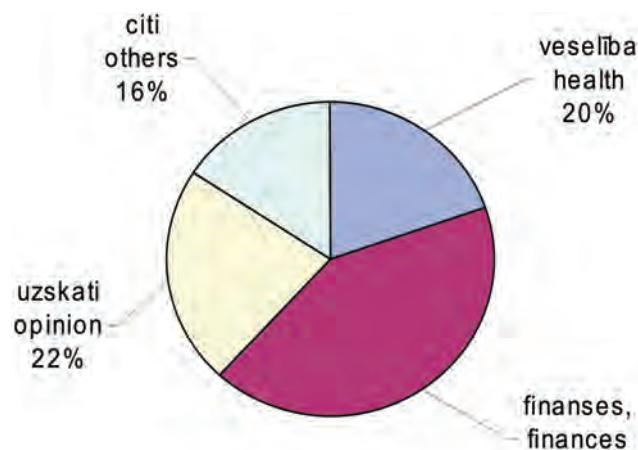
Otrkārt var mēģināt arī klasificēt potenciālā pircēja un patērētāja nepārdomāto rīcību, kas var radīt dažādas sekas mikro, mezo un pat makro līmenī.

a) Uzvedību, kas var novest pie finansiālām problēmām, varētu sadalīt dažādu izpausmju efektu veidā:

- Gribu – pārku efekts. Patērētājs pērk precī nevis tās derīguma dēļ, bet lai kļūtu par tās īpašnieku, lai tikai viņam piederētu arvien vairāk;
- Vilhelma Buša efekts. Tiklīdz patērētājs kādu vajadzību ar preces vai pakalpojuma ir sedzis, ar steigu cenšas apmierināt nākamo radušos vajadzību;
- „laimīgā Hansa efekts”. Ja patērētājam iegādājoties kādu precī nerodas gaidītais apmierinājuma efekts jeb rodas disonanse, tad rodas vajadzība pirkt nākošo precī. Šis process var būt nebeidzams (Beier U., 1999).
- Cenas garantijas efekts. Patērētājs izvēlas dārgāko precī vai pakalpojumu uzskatot, ka cena garantē kvalitāti.
- Viedokļa līdera efekts. Patērētājs pērk tehniski interesantu vai tehnoloģiski modernu precī, lai demonstrētu savu materiālo stāvokli un būtu viedokļa noteicējs savā sociālajā grupā.

b) Rīcība, kas var novest pie veselības problēmām:

- Paraduma patēriņš (funkcionālā autonomija). Patērētājs pērk vienu un to pašu precī ieraduma dēļ, neskatoties, ka ieradums var izraisīt veselības problēmas pēc jaunākajiem zinātniskajiem pētījumiem;
- Pārsātinājuma patēriņš. Patērētājs cenšas pēc iespējas labāk segt kādu vienu konkrētu vajadzību;
- Krājumu veidošana – patērētājs pērk, lai preces būtu vienmēr krājumā, neatkarīgi no tā, kad un cik daudz tās būs nepieciešamas;
- Rieksta sindroms: patērētājs pērk vispirms nemotivētu precī, pēc tam rodas nepieciešamība šo precī pirkt vēl un vēl;
- Iepriecinājuma patēriņš – patērētājs ar iepirkšanās palīdzību cenšas risināt kādu savu personisku problēmu.
- Iepirkšanās, kas var novest pie ekoloģiskām problēmām:
- Ērtību patēriņš. Patērētājs pērk tūlītējam patēriņam gatavas preces, kurām parasti ir arī daudz iesaiņojamā materiāla;
- Pilnības patēriņš – patērētājs cenšas nopirkt pašu kvalitatīvāko precī, lai gan



Avots: autores aptauja CHANCE projekta ietvaros, 2009.
Source: author's survey within the CHANCE project, 2009

1.attēls. **Iemesli iedzīvotāju iepirkšanās un ēšanas paradumu maiņai. n=413**
Figure 1. **Causes for the changes in consumption and eating habits of the population, n=413**

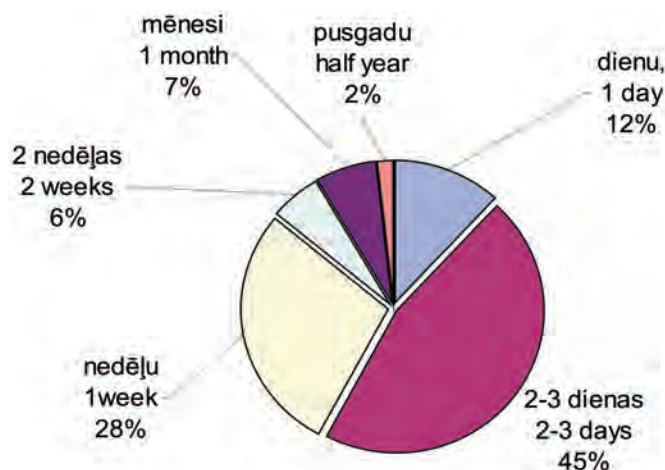
- pašam un mājturībai nav tik augsts prasību līmenis un varētu iztikt ar vienkāršāku preces modeli vai variantu;
- Globalizācijas maldināšana – patērētājs ignorē to precī, kas viņam nepieciešama un finansiāli sasniedzama, bet nav ražota viņa reģionā (valstī).
 - Solo – patēriņš. – Patērētājs pērk precī tikai personīgam patēriņam, lai gan to varētu lietot kopīgi ar saviem ģimenes locekļiem vai kaimiņiem.
 - Vienreizējās lietošanas patēriņš. Patērētājs izmet precī atkritumos, ja tā tam vairs nepatīk vai ir sabojājusies, tā vietā, lai to salabotu, izlietotu līdz galam, uzdāvinātu citam vai pārdotu.
- d) Patēriņš, kas var novest pie sociālām problēmām.
- Prestižs pirkums. Patērētājs pērk precī, lai iegūtu atzinību, demonstrētu izšķērdīgu dzīves stilu, progresivitāti un sapratni.
 - Patēriņš kā sociālo problēmu risinātājs. Pērkot preces trešajai personai, patērētājs cenšas veidot un kopt cilvēciskās attiecības (draudzību, pateicību, atbalstu), lai risinātu kādas sociālās problēmas.
 - Patēriņa konkurence. Patērētājs pērk precī, lai piemērotos apkārtējai sociālai videi un pēc tam, mēģināt no tās atšķirties (tiekšanās pēc diferencēšanās). Sekas ir pārējas no vienas puses noskatīt kā sev noderīgas, lai tiem atbilstoši piemērotos un atšķirtos. Sekas ir mūžīgs riņķojums.
 - Dominējošs patēriņš. Patērētājs pērk precī savai mājturībai bez apspriešanās ar pārējiem mājturības locekļiem.
 - „Negodīga tirdzniecība”. Patērētājs ignorē, pērkot precī, ka to ražojuši cilvēki, kas strādā necilvēcīgos apstākļos, tikai lai prece būtu tik lēta, lai to pirktu (Beier U., 1999).

Problēmu risināšanai nav tāda padoma, kas derētu visiem patērētājiem, jo katram ir savas finansiālās, ekoloģiskās, sociālās vai veselības problēmas. Mājas ekonomisti meklē risinājumus un katrs pētījums var skart tikai daļu problēmu. Atsevišķi patērētāji daudzsoļi var rīkoties ekonomiski, ekoloģiski, sociāli atbildīgi. Taču to nevar uzlikt kā pienākumu. Patērētājam nav jābūt askētam, bet viņam vajadzētu tiekties pēc pietiekamības – nevis atteikšanās, līdz ar to ir nepieciešamas sociālas inovācijas.

Jāsāk ar uzvedības maiņu, vispirms prasot sev vai tas patiešām ir nepieciešams. Izglītībai noderētu pareizs uzvedības modelis, kas dotu impulsu jaunajai paaudzei ne tikai kopētu vecāku uzvedību, bet arī apzināt savas vajadzības, tās novērtēt ekonomiski racionāli, izvērtējos izmaksu derīguma veidā. Protams, derīgumu izvērtējot individuāli atkarībā no personīgajām prioritātēm un audzināšanas.

Rezultāti Results

Starptautiskā projekta Nr. 134240-LLP-1-2007-1-DE-GRUNDTVIG-GMP „Community Health Management to Enhance Behaviour” (CHANCE) ietvaros tika noskaidrota patērētāju uzvedības maiņa dažos jautājumos, kas saistīt ar uzturu, veselīgu dzīvesveidu, ēšanas paradumiem un krājumiem. Projekta mērķis bija identificēt cilvēku vajadzības kopienas (konkrēti vienas pilsētas mikrorajona iedzīvotāju) līmenī sešās Eiropas pilsētās Fuldā (Vācija), Jelgavā (Latvijā), Liverpoolā (Anglijā), Timiošuarā (Rumānija), Uppsalā (Zviedrija) un Vīnē (Austrija) veselīga dzīvesveida nodrošināšanā, pēc tam daļu iniciatīvu realizējot un novērtējot rezultātus. Projekta ieviešanas pasākuma laikā 2009. gada aprīlī Jelgavā RAF mikrorajona pie tirdzniecības centra tika aptaujāti 413 iedzīvotāji par viņu iepirkšanās paradumu un uzvedības maiņu pēdējā gada laikā. No respondentiem 180 bija



Avots: autores aptauja CHANCE projekta ietvaros 2009.
Source: author's survey within the CHANCE project, 2009

2. attēls. **Iedzīvotāju pārtikas krājumu apjoms mājsaimniecībā (dienās). n=413**
Figure 2. **Amount of food stock in households (in terms of days), n=413**

Jelgavas RAF mikrorajona iedzīvotāji, pārējie bija citas pilsētas daļas vai apdzīvotas vietas iedzīvotāji. Respondenti bija vecumā no 18 līdz 81 gadam, 214 sievietes, 199 vīrieši.

Jautājot respondentiem, vai pēdējā gada laikā ir mainījušies ēšanas un iepirkšanās paradumi 44% atzina, ka ir mainījušies - 56% nav.

No tiem, kuriem ēšanas paradumi mainījušies, visbiežāk kā iemeslu minēja finansiālā stāvokļa izmaiņas, jo 2009. gada pavasarī jau iezīmējās ekonomiskās krīzes sekas Latvijā, atzīmējot, ka pērk mazāk un apdomīgāk, izvēloties lētākās - veikalu izpārdošanas akciju preces. Citi uzskata, ka ienākumiem samazinoties ir jāpadomā, ko likt uz galda. Ir atsevišķas personas, kuras atzīmē, ka tieši mainoties finansiālam stāvoklim izvēlas veselīgāku pārtiku un Latvijā audzētos produktus. Daži atzīmē, ka krīzes apstākļos gribot negribot jāizvēlas neveselīga, ar to saprotot lētāku pārtiku. Cilvēki atzīmē, ka nevar atļauties tik daudz vairs gaļu, augļus un našķus.

Tie, kuru paradumu maiņai min par iemeslu veselību, atzīmē, ka ēd veselīgāku pārtiku, vairāk uzmanības pievērš marķējumam informācijai par produkta sastāvu, izvēlas pārtiku bez konservantiem, nepērk tik daudz našķu, ēd vairāk zaļumus un augļus. Ja ģimenē ir cukura diabēta cilvēks, tad viņa ēdienkartei cenšas piemēroties visi mājturības locekļi. Tāpat ēdienkartei izmaina dažādas dzīves cikla fāzes.

Daudziem ēst veselīgāk ir likusi dzīves uzskatu maiņa, piemēram, daži atzīmē, ka iemācījušies iepirkties taupīgāk un vienlaicīgi arī veselīgāk, lietojot mazāk taukvielas, sāli un cukuru, desu izstrādājumus un citas neveselīgas lietas, bet vairāk lietot dārzeņus. Cilvēki atzīmē, ka lielveikala vietā pēc iespējas izvēlas tirgu ar vietējo pārtiku. Citi atzīmē, ka tagad vairāk gatavo mājās paši. Kāds respondents atzīstas, ka kļuvis veģetāriets.

Tie, kuri atzīmējuši vairākus iemeslus ēšanas un iepirkšanās paradumu maiņai, atzīmē, ka tie ir bijuši pārsvarā nozīmīgi notikumi privātajā dzīvē,

bieži vien tā bijusi dzīvesvietas, mājturības formas vai dzīves cikla maiņa, darba vietas vai sociālā statusa maiņa, līdz ar ko mainījusies gan ēdienreīžu skaits, gan vieta. Citi vairāk ēd mājās, citi ārpus mājas, citi atzīmē, ka darba vai stresa dēļ ēd vairāk vai mazāk, citi iegūto zināšanu dēļ, neizvēlas vairs tomātus nesezonas laikā. Tie visi, kas atzīmē, ka ēd vairāk ārpus mājas vai kuriem straujš dzīves ritms, pieder pie respondentiem no visaugstākās ienākumu grupas.

Tomēr kopumā jāatzīst, ka tie, kuriem mainījušies iepirkšanās un ēšanas paradumi, atzīst, ka cenšas ēst veselīgāk, dažs konkretizējot, citi vienkārši tā uzskata. Otra būtiska atziņa ir, ka cenšas dzīvot taupīgāk un izvēlēties lētākas preces.

Saistībā ar iepirkšanās un ēšanas paradumiem iedzīvotājiem tika arī pavaicāts, cik ilgi varētu iztikt ar mājās esošajiem krājumiem. Respondentiem tika piedāvāta iespēja izvēlēties, kura no atbildēm atbilstu precīzāk viņu situācijai. Iedzīvotājiem šis jautājums lika izdomāties par tādiem jautājumiem, kuriem ikdienā nepievērš uzmanību.

Gandrīz ¾ no visām mājsaimniecībām bez bažām varētu iztikt ar mājās esošajiem pārtika krājumiem vismaz 3 dienas. Pārtiku 2-3 dienām iepērk gandrīz puse no visiem aptaujātajiem. Par nedēļas ēdienkartei padomā nepilna trešdaļa iedzīvotāju. Šie skaitļi nepārsteidz un atbilst arī lielākās iedzīvotāju daļas ikdienai. 12% no respondentiem norādīja, ka pārtikas mājās pietiek tikai vienai dienai, respektīvi, nav pārtikas krājumu. Interesanti būtu tuvāk raksturot šo grupu. 90% no viņiem dzīvo pilsētā daudzstāvu mājas dzīvoklī. Lielākā daļa 55% bija vecuma no 21-30 gadiem ar dažādiem ienākumiem un populārāka mājsaimniecības lielums bija 2 personas. Tomēr korelācijas sakarība nepastāv starp mājturības locekļu skaitu un paradumiem. Datus apstrādājot statistiski ar 95% ticamību var teikt, ka vidēji cieš sakarība ir cilvēkiem vecuma grupā 21-30 gadi (korelācijas koeficients $r = 0.58$) un 61-70 ($r = 0.53$), kuriem mājās nav pārtikas krājumu. Tāpat vidēji cieša korelatīva

sakarība starp mājās neeksistējošiem krājumiem ir dzīvotājiem ar vidējo izglītību ($r = 0.63$) un cieša korelatīva sakarība ienākumu grupai LVL 100-200 uz vienu mājturības locekli mēnesī ($r = 0.89$). Tas liecina, ka iedzīvotājiem, kuriem ir līdzekļi vismaz iztikas minimuma līmenī, ir parūpējušies arī par to, lai mājās būtu pārtikas krājumi.

Tie, kuri var iztikt mēnesī un vairāk ar saviem pārtikas krājumiem, bija pārsvarā lauku iedzīvotāji vai pilsētnieki, kuriem ir savs dārzs.

Secinājumi

Conclusions

Patērētāja uzvedību nosaka gan ārējie finansiālie, sociālie un ekoloģiskie faktori, gan iekšējie, kas saistīti ar veselību, prioritātēm un audzināšanu. Nepārdomātas rīcības gadījumā patērētāja uzvedība var novest ne tikai pie finansiālajiem, bet arī pie sociālām, ekoloģiskām vai veselības problēmām.

Latvijas iedzīvotājiem, izvēloties pārtiku, galvenais faktors ir finansiālais un dzīves uzskati par veselīgu dzīvesveidu, tai skaitā, par veselīgu uzturu.

Lai gan Latvijas sabiedrībai kopējais uzkrājumu lielums mērāms ar mīnusa zīmi, taču pārtikas krājumi ir vismaz vienai trešdaļai iedzīvotāju un 88% bez bažām var pārtikt 2-3 dienas.

Patērētāja uzvedības maiņa ir saistīta ne vien ar finansiālo, bet arī dzīves cikla fāzēm, vienlaicīgi ar personisko izaugsmi.

Lai nodrošinātu iespēju patērētājiem novērst nepārdomāts rīcības gadījumus, mājas ekonomistu izdevums ir radīt dažādas tehnoloģijas, kas palīdzētu pieņemt lēmumus, lai patērētāja izvēlēta rīcība būtu atbildīga un pārdomāta, piemēram, veselīgs dzīvesveids nenozīmē tikai izvairīšanās no slimībām vai pareiza uzturs un kustības, bet arī pārdomāta finansu plānošana un laika sadale. Būtu nepieciešams

izveidot un ieviest izglītības sistēmā pareizas uzvedības modeli, ka palīdzētu jauniešiem modelēt situāciju pirms lēmuma pieņemšanas.

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Kopsavilkums

Patērētāja uzvedība maiņu izsauc dažādi gan ārējie, gan iekšējie faktori, kas var novest pie dažādām problemātiskām sekām. Raksta mērķis ir teorētiski pamatot un empīriski pārbaudīt patērētāja rīcības motivāciju. Darbā veikta teorētiska diskusija par patērētāja uzvedības maiņas cēloņiem, motivāciju un iespējamām sekām. Empīriski pārbaudīta daļa patērētāja uzvedības maiņas cēloņi un motivācija Latvijā, izvēloties pārtikas preces un ēšanas paradumus. Datu ieguvei izmantota anketēšanas metode strukturēta intervijas veidā. Dati apstrādāti ar statistikas metodēm. Rezultātā secināts, patērētāja uzvedības maiņa notiek ne vien finansiālu apstākļu dēļ, bet tā ir arī saistīta ar personiskā dzīves cikla maiņu, veselības problēmām vai dzīve uzskatu maiņu.

Atslēgvārdi. Patērētāja uzvedība, mājturība, patēriņš, krājumi

Automotive Aftersales Market in the Regions of Latvia and Factors Affecting Market Development

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Abstract. After Latvia regained the independence the automotive aftersales market has historically developed only as a support market for car sales. However, in recent years, with the economic situation changing, it plays an increasingly larger role in industry enterprises. Right now, a change of priorities and reorientation from car sales to providing aftersales services is taking place in the industry enterprises, simultaneously increasing competition among the car service companies. Characteristics of the automotive aftersales market and analyses of problems is an essential precondition for the development of an automotive aftersales market in the regions of Latvia, thereby facilitating regional development and increasing employment. Therefore, in the current situation, it is necessary to develop the automotive aftersales market and at the same time improve competitiveness and efficiency of utilisation of resources of industry enterprises.

The research has determined that the economic situation and macro economic indicators create a close correlation with the number of cars, intensity of their utilisation, and thus directly affecting the provision of aftersales services in the regions of Latvia.

Methods of description, analysis, graphic depiction, time series, and mathematical statistics have been applied for the research purpose.

Key words: regional development, aftersales services, automotive workshops, automotive aftersales.

Introduction

Car industry and its subordinated markets are considered as one of the most significant European Union industries, the moving force of the growth, export and innovation. Subordinated market of the car industry is being created by suppliers and service providers (European Economic and Social Affairs Committee, 2009).

In the European Union car industry aftersales market is developed by approximately 834 700 companies, most of them are small and medium size. Aftersales market structure varies in the EU member states. The markets of some countries, mostly the South European, are dominated by small and micro-companies (predominantly family-owned enterprises). In other countries, for example, Germany and France, the industry is characterised by larger structures. Industry turnover equals to EUR 1107 billion and it employs approximately 4.6 million people in the European Union (Wolk & Partner Car Consult).

Automotive aftersales includes:

- car servicing (technical servicing, diagnostics, repairs);
- car spare parts (original, and non-original spare parts).

At the time of a global economic crisis the profit structure of automotive aftersales enterprises has significantly changed due to the decrease of car sales and increase of competition in sales of new and used vehicles, and with the aging of vehicles. In the past the majority of car industry profit was originated by car sales, while today - by car aftersales. Competition has increased significantly among automotive

workshops. Automotive workshops and services play more and more significant role in industry companies.

The aftersales market development in the regions of Latvia will reduce the level of unemployment and it will positively affect regional development.

Several car manufacturers have researched the problems of automotive aftersales market, e.g. DaimlerChrysler *Global Training has conducted aftersales services research, it has developed aftersales processes descriptions, and various methods for planning of workshops and analyses* (Workshop Analysis, Workshop Process 2010). Several authors have studied aftersales services production and service providing processes in automotive workshops (Малкин В.С., 2007, Аринин И.Н., 2007).

The automotive aftersales market has been researched by independent expert companies, e.g., Wolk & Partner Car Consult GmbH and Wolk After Sales Experts GmbH (Parts Trade in German IAM 2008, Automotive aftermarket in Europe, Aftermarket Trends Facts History). However, the automotive aftersales services market in Latvia and the opportunities for its development in the regions of Latvia are still not adequately studied.

The research hypothesis – it is feasible to develop automotive aftersales services in the regions of Latvia considering external factors essentially affecting the aftersales market.

The research aim is to characterise the automotive aftersales market in the regions of Latvia, to study the Latvian auto park, and to determine and analyse the effect of external factors on the auto park.

The following research **tasks** were advanced to verify the research hypothesis and to achieve the research aim:

- to characterise the automotive aftersales market in the regions of Latvia;
- to characterise the auto park and its dynamics in Latvia;
- to ascertain the external factors affecting the automotive aftersales market;
- to outline automotive aftersales market development trends in the regions of Latvia;

Methods of description, analysis, graphic depiction, time series, and mathematical statistics have been applied for the research.

The data of the Road Traffic Safety Department (CSDD), the Central Statistical Bureau (CSB), special theoretical and methodical literature, and Wolk & Partner Car Consult GmbH and Wolk After Sales Experts GmbH publications were used as the basis for the research information.

Results and discussion

Characteristics of the aftersales market in Latvia

Notwithstanding the increase in a number of cars in Latvia (Table 2), in 2007 the car sales and aftersales market in Latvia was only 0.2% of total European car sales and aftersales (Wolk & Partner Car Consult).

Until 2009, the majority of Latvian car industry companies were oriented towards car sales and not the aftersales market. Global economic crisis and the rapid decrease of sales of new cars (in 2008 -40.9%, in 2009 -71.2%) as well as unconsidered investments in large car sales show rooms and real estate are currently causing financial difficulties for the majority of car industry companies. Sales of new cars has decreased from 19192 cars to 5534 cars between 2008 and 2009, the aftersales market volume has fallen by approximately 30%.

Car sales were characterised by a continuous price increase until 2008 and a sharp plummeting drop in prices in 2009. Despite a fast drop in prices, in 2009 the volumes of aftersales services continue to fall and the aftersales market is not flexible. Until 2008 the aftersales service providers had to face with a high demand; while from 2009 a rapid reduction in demand has caused active competition in the aftersales market.

Historically, the aftersales companies have been concentrated in Riga city. Insufficient attention is focused on the regions, and as result residents from regions often come to Riga for car repairs; while borderland residents use Lithuanian and Estonian service providers.

The majority of companies representing car brands have not established representation networks in the regions. Some of car manufactures do not have any authorised representative in the regions of Latvia, for example, such popular brands in Latvia as Audi, BMW, Mazda, Honda, etc.

In Latvia according to the calculations made by the authors, there were 82 workshops authorised by

car manufacturers in 2009, including 39 workshops in Riga. The research on manufacturers' authorised representatives in the regions of Latvia leads to the conclusion that many of them do not have a capacity to provide aftersales services to a client in the necessary volume and quality. Representatives located in the regions of Latvia are unable to provide more complicated work as well as solutions to ensure client's mobility. The research showed that practically all of the manufacturer's authorised workshops in the regions of Latvia perform repairs also for other brands of cars. A similar situation is also observed with the largest independent aftersales market participants, such as Grosauto, Autofarīts, etc. Grosauto has established only one service workshop outside Riga, while Autofavorīts has three workshops outside Riga. In accordance with the calculations made by Wolk & Partner Car Consult there are approximately 1400 car servicing workshops independent from the manufacturer. There is no aftersales companies' chain in Latvia to ensure the same quality service in the entire territory of Latvia.

In Latvia 70% of total aftermarket volume is covered by independent aftersales market participants, thus in 2007 generating the turnover of EUR 175 million (Wolk & Partner Car Consult).

The service work structure differs in the regions of Latvia and Riga. In the regions, vehicles need more repairs of running gear, their parts are repaired and not replaced, and clients try to choose the cheapest service and spare parts, often not considering the quality of service or the spare part.

The car exploitation conditions are heavier in the regions compared with Riga and one car needs a larger aftersales service volume.

As a result of the situation the clients' loyalty reduces, they try to choose the cheapest service provider, and repairs done by clients themselves increase. However, the repairs done by the customers themselves and the automotive workshops with cheap pricing image are limited by the complexity of cars, and the need for technology and expensive diagnostics equipment.

Analysing Latvian after sales market by brands (Table 1) the authors established that the largest share of passenger cars and also the aftermarket is covered by VW (18.2%), followed by Audi (14.6%), and Opel (8.6%).

The comparison of the aftersales market in Latvia and the advanced European countries shows that in Latvia there is a place for manufacturers' authorised small and medium companies, and also independent chains of aftersales companies with the image of cheap prices (similar to ATU in Germany).

Automotive aftersales market is directly subordinated to the dynamics of automotive park in operation. One cannot outline the development tendencies for aftersales market without the study of the automotive park in Latvia.

Automotive park in Latvia

After regaining the independence and introduction of the market principles in Latvia, the number of cars

Table 1

The number of passenger cars in technical order by brands, and their share of total passenger cars in 2008

Brand	Number of passenger cars in technical order	% of total number
VW	97056	18%
Audi	78042	15%
Opel	45653	9%
BMW	37837	7%
Ford	32305	6%
Mazda	28020	5%
Mercedes-Benz	25773	5%
Toyota	23493	4%
Mitsubishi	17956	3%
Volvo	18023	3%
Citi	130331	24%

Source: authors' calculations according to the CSDD data, 2008

Table 2

Number of passenger cars and trucks in Latvia in technical order from 1998 to 2008

Year	Number of passenger cars in technical order	Chain increase rate, %	Number of trucks in technical order	Chain increase rate, %
1998	278589	-	36123	-
1999	292748	5.1	35745	-1.0
2000	313831	7.2	38767	8.5
2001	325145	3.6	40571	4.7
2002	333134	2.5	41681	2.7
2003	358110	7.5	44171	6.0
2004	389929	8.9	46671	5.7
2005	423801	8.7	50966	9.2
2006	481975	13.7	57567	13.0
2007	539017	11.8	64467	12.0
2008	534489	-0.8	60937	-5.5

Source: authors' calculations according to the CSDD data from 2003 to 2008

drastically increased (Table 2) and subordinated to it – the volume of aftersales services.

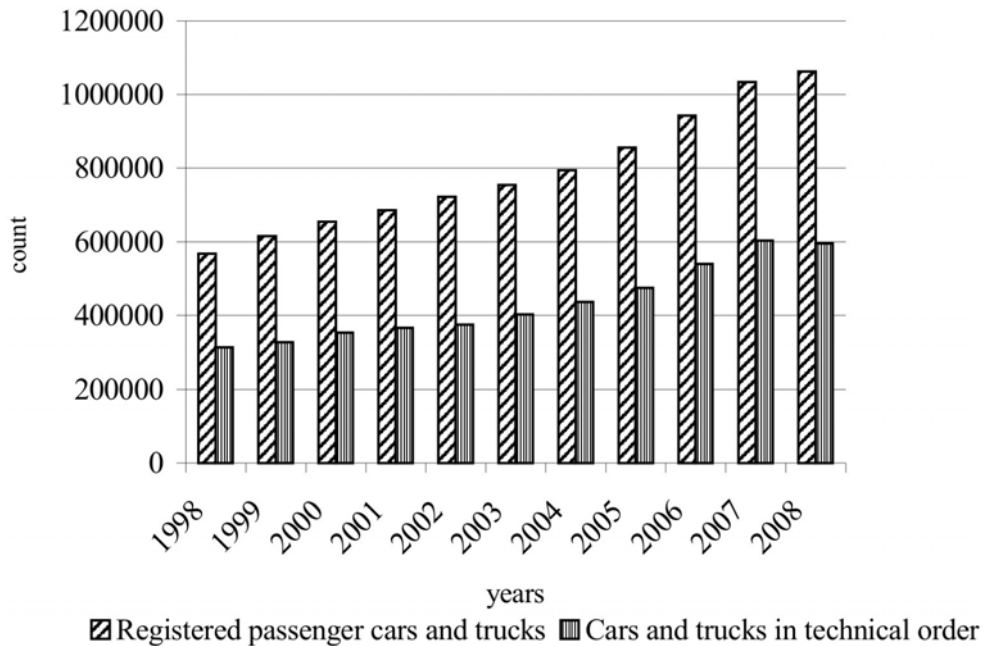
As shown in Table 2, the increase trend dynamics is observed for cars in technical order, thus the largest chain increase for trucks was observed in 2006 and 2007 by 13% and 12% respectively; however in 2008 the chain increase rate dropped sharply, and dynamics turned negative. The number of trucks in technical order decreased by 3530 units or 5.5%. For passenger cars, similar to trucks, the largest increase rate was observed in 2006 and 2007 amounting to 13.7% and 11.8% respectively, while in 2008 the number of passenger cars in technical order reduced by 0.8%.

In the authors' opinion these 11 years could be divided into two periods – the first period lasting up

to 2007, when there was a tendency for a number of cars to increase, and the second period starting from 2008, when an observed reduction in a number of cars.

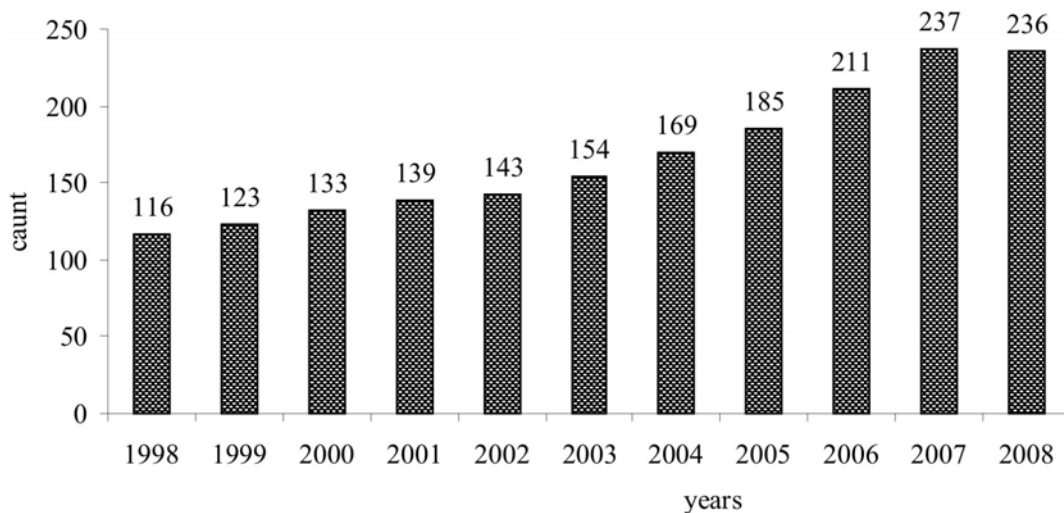
Figure No 1 summarises the data on the dynamics of registered passenger cars and trucks in technical order for the period of 1998-2008; about a half of all the registered vehicles are not operated and are not in technical order (the government-conducted technical inspection has not been passed for more than 3 years).

At the end of 2009 in Latvia a large scale write-off vehicles was observed due to the government tax policy. Starting from 2010 the government increased the annual duty for cars, and required the annual duty payment every



Source: made by authors according to CSDD data

Figure 1. Dynamics by year of registered passenger cars and trucks in technical order



Source: made by authors according to CSDD and CSB data

Figure 2. The number of passenger cars in technical order per 1000 residents

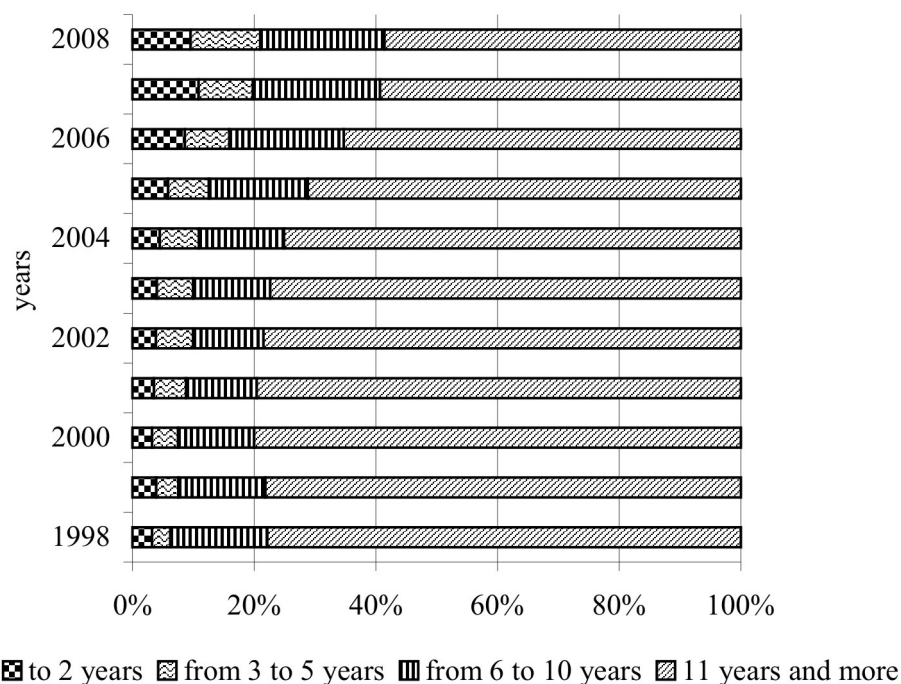
year regardless of whether the vehicle is in technical order (has passed the annual technical inspection) or not. This measure of the government will significantly reduce the number of registered vehicles which are not used, are damaged or destroyed.

The base increase rate for the number of passenger cars in technical order per 1000 residents in 2008 (compared 2008 with 1998) made 103.6%. Calculations on the number of passenger cars in technical order per 1000 residents are shown in Figure 2. In 2006 comparatively 563 passenger cars were registered per 1000 residents in Germany.

In addition to a reduction of the number of passenger cars, the changes in vehicles' age structure are observed (Figure 3), thus definitely influencing the car aftersales market.

From 1998 to 2007 the number of passenger cars per 1000 residents has gradually increased, while a reduction is observed from 2008. A smaller number of passenger cars in a household increase the intensity of vehicle use, mileage and aftersales services volume per car.

Starting from 2001 the base increase rate is negative for passenger cars in technical order in the age group of 11 years and more, reaching



Source: made by authors according to CSDD data

Figure 3. Division of passenger cars in technical order by age

the maximum in 2008 comprising 28.4%. For vehicles in technical order in the age group from 6 to 11 years the base increase rate was negative till 2002, specifically notable in 2001 and 2002, when the base increase rate was -15.3% and -13.3% respectively. The base increase rate for the entire researched period was positive for cars in the age group up to 2 years and the age group from 3 to 5 years

In 2008 the age group to 2 years shows a distinctly negative chain increase rate (-13.0%), for the age group from 3 to 5 years the chain increase rate is 28%, and for age group 6 to 11 years, and the age group 11 years and more, the chain increase rate is negative making -3.4% and -2.0% respectively.

The analysis by cities and regions of Latvia showed that in 2008 fifty per cent of total number of passenger cars in technical order was registered in the largest cities of Latvia, 34% of total number were registered in Riga City; the other 50% were registered in the districts of Latvia, including 9% in Riga district surrounding Riga City. The results summarised in Table 3 show that till 2007 there was a significant increase of cars in technical order. In 2008 the chain increase rate was negative in Riga, Vidzeme and Kurzeme planning regions, while in Zemgale and Latgale planning regions there was still an increase by 0.2% and 1.6% respectively. In 2008 Riga planning region is very distinct with the largest decrease of vehicles in technical order (chain increase rate -1.7%).

In the authors' opinion the demand for aftersales services will increase with the change in a car age structure, and the car share in the age group up to

2 years; therefore the aftersales services providers should use this time to strengthen their capacity as well as they shall be ready for the increase in demand. In the regions of Latvia, similar to other European countries, it is necessary to develop small and medium size companies, and independent chains of car aftersales companies.

Analysing the **intensity of car operation** in Latvia the authors have established that in 2008, the mileage per one passenger car in technical order was 18 608 kilometres on average, while in 2003 - 19 015 kilometres (Table 4). In comparison, in Germany the average car mileage was 12 600 kilometres (Wolk After Sales Expert). The lower mileage is explained by a larger number of cars per 1000 residents in Germany. There is a larger mileage per car in Latvia compared with Germany as well as heavier conditions for operation, thus requiring a larger volume of aftersales services per car in technical order.

Analysing the dynamics of car mileage (Table 4), the authors conclude that there are essential changes per car in technical order with the change of a number of cars in technical order. The calculation of correlation coefficient between the two showed a weak connection between these two indicators ($r = 0.464$); however, an essential correlation was determined between the GDP and mileage per car in technical order ($r = 0.984$).

Therefore, the intensity of car operation and also the automotive aftersales market is essentially affected by external factors:

- increase of unemployment;
- GDP reduction;

Table 3

The number of passenger cars in technical order in the regions of Latvia from 2003 to 2008

Indicators		2003	2004	2005	2006	2007	2008
Rīga planning region	Number of cars in technical order	198544	216138	226639	257590	287508	282694
	Chain increase rate, %	-	8.9	4.9	13.7	11.6	-1.7
Vidzeme planning region	Number of cars in technical order	36339	39764	45278	51438	56996	56194
	Chain increase rate, %	-	9.4	13.9	13.6	10.8	-1.4
Kurzeme planning region	Number of cars in technical order	43663	47612	54197	61479	68524	68431
	Chain increase rate, %	-	9.0	13.8	13.4	11.5	-0.1
Zemgale planning region	Number of cars in technical order	38058	41893	48360	55685	63145	63293
	Chain increase rate, %	-	10.1	15.4	15.1	13.4	0.2
Latgale planning region	Number of cars in technical order	41506	44522	49327	55783	62844	63877
	Chain increase rate, %	-	7.3	10.8	13.1	12.7	1.6

Source: authors' calculations according to the CSDD data from 2003 to 2008

Table 4

The number of passenger cars in technical order and the average mileage per one passenger car in technical order from 2000 to 2008

Indicators	2000	2001	2002	2003	2004	2005	2006	2007	2008
Number of cars in technical order	313831	325145	333134	358110	389929	423801	481975	539017	534489
Average mileage per car in technical order	18261	19659	18815	19015	19199	18826	19721	20659	18608

Source: the data of CSDD from 2000 to 2008

- reduction in the number of cars registered for the first time;
- changes in a car age structure;
- changes in price level (inflation);
- number of cars per 1000 residents.

Analysis of external factors, correlation rate

The correlation analysis was applied to establish a correlation rate of factors affecting the aftersales market and to achieve the research aim, thus learning the correlation of each factor on a studied indicator.

The authors selected the following resulting indicators:

- passenger cars registered for the first time;
- trucks registered for the first time;
- number of passenger cars in technical order;
- number of trucks in technical order.

The following indicators were selected as factorial indicators determining the values of resulting indicators:

- GDP in constant prices for 2000;
- GDP in current prices;
- unemployment rate;
- inflation rate.

The data of CSDD and CSB from 1998 to 2008 were applied to perform the correlation coefficient calculations.

Results for the correlation of factorial and resulting indicators are shown in Table 5.

Table 5

Correlation of external factors on the number of passenger cars and trucks registered for the first time

Indicators	Passenger cars in technical order	Trucks in technical order	First time registered passenger cars	First time registered trucks
GDP in constant prices for 2000	0.993	0.995	0.769	0.795
GDP	0.984	0.973	0.670	0.702
Unemployment rate	-0.961	-0.972	-0.815	-0.819
Inflation rate	0.863	0.835	0.509	0.511

Source: authors calculations according to the data of CSDD and CSB from 1998 to 2008

The calculations included in Table 5 may be interpreted as follows:

- **High correlation**, which essentially affects resulting indicators. The number of passenger cars and trucks in technical order are essentially affected both by the GDP for 2000 in constant prices and the GDP in current prices. The number of passenger cars in technical order has also a high correlation with the inflation rate. The growth of GDP and inflation rate essentially increases the number of passenger cars and trucks in technical order.
- **Medium correlation**, which affects resulting indicators. The number of passenger cars and trucks registered for the first time has a medium correlation with the GDP for 2000 in constant and current prices, and also the inflation rate.
- **High negative correlation** is observed for all resulting indicators related to the unemployment rate. The resulting indicator decreases with the increase of this factor. Also, the opposite interpretation is possible, i.e. an essential increase of passenger cars and trucks in technical order and the number of passenger cars and trucks registered for the first time is possible due to the decrease of this factor.

The correlation analysis shows a relation between resulting indicators and factorial indicators.

Conclusions

1. The economic situation and macroeconomic indicators have a significant effect on the number of passenger cars and trucks in technical order and the intensity of car operation.
2. Historically, the largest aftersales enterprises have been concentrated in Riga, while insufficient attention is being paid to the regions of Latvia.
3. Manufacturer authorised small and medium after-sale companies and independent chains of automotive after-sales companies need to develop in the regions of Latvia.

4. The structure of aftersales enterprises should be restructured and adjusted to the changes in car park due to the changes in the economic situation and car age.
5. Enterprises with cheap pricing image are developing as a result of the economic situation.
6. Aftersales service enterprises shall use the time of an economic downturn to strengthen their positions in the regions of Latvia and be ready for the increase in demand.

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Problems of Customer-Guided Services Quality Assurance in Rural Extension

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Abstract. The research paper provides theoretical analysis of rural and agricultural extension services' quality assurance problems. The author reflects the role of extension services in the process of rural and agricultural development, emphasising the constant necessity to monitor, control and re-engineer the services, which are customer-guided. The service quality theory and customer satisfaction base lines are analysed and attributed to Latvia Rural Advisory and Training Centre, suggesting further directions how to eliminate the present gaps in the provision of services and develop reference points for quality assurance programmes.

Key words: extension services, expectations, satisfaction, quality.

Introduction

Increasing food production, stimulating economic growth, increasing welfare of farm families and rural people, reducing poverty and social inequalities, sustainable use of national resources, and participatory development, as summarised in the Millennium Development Goals (United Nations, 2009), are all governmental goals to which agricultural and extension policies and activities can make a significant contribution. So extension and its role and function must be seen in relation to a country's overall socio-economic situation, the situation of different population groups, and the government policies adopted by a country for rural development and agriculture.

Since the access of information and advisory services is of crucial importance, the author has defined the research aim to perform the analysis of Latvia Rural Training and Advisory Centre's (hereinafter – LLKC) problems in quality assurance system. The tasks of the research were: to detect the present gaps in quality programmes, focusing on service quality management in LLKC, and suggest ways for further elimination of gaps. The research is based on the application of the descriptive method to perform a detailed research of LLKC services. Analytical method was applied to divide factors affecting service quality in individual groups and perform analysis of each group. Logical construction method was used in the conclusion part to present the author's conclusions on the research results.

Results and discussion

1. Role of extension services in rural and agricultural development

Agricultural extension in its broadest sense is considered an important instrument to support farmers' efforts in agricultural development in a changing environment (Combs, 1975, Mosher, 1978, Rolls et al. 1986, Van den Ban and Hawkins, 1996). According to the World Bank figures, worldwide agricultural extension in 1997 employed at least

800,000 extension workers and hundreds more (Feder, Willet, Zijp, 2001). It is estimated that USD 6 billion are spent every year on agricultural extension activities (Swanson et al. 1994,5-8). These figures may have decreased in the past fifteen years, but still give an impression of the enormity of this institution (Hoffmann, et al., 2009).

At all times – and even more so these days – there have always been different understanding about the objectives of extension and extension services, the roles and tasks of extension staff, and especially how these services can be organised and financed (Knorr et al. 2007).

Extension is often claimed as an accelerator for rural and agricultural development. Regarding this formulation, Mosher in 1966 has classified elements favouring rural development, distinguishing accelerator factors and essential factors of agricultural development. Essential factors include sound development policy, basic education, health services, credit availability and others. Accelerator factors are additional factors that aid and enhance the development process to anticipate and avoid problems to minimise the negative effects of development on certain categories of factors in rural development.

There are many effective methods and instruments to influence behaviour and behaviour change. Governments can provide subsidies, administer taxes and levies; they can prohibit and sanction activities. Private companies in their turn can be encouraged to contract their services. These methods should be used when behaviour change is necessary. Misuse should not damage the relationship of trust between advisers and clients, because it is necessary to influence behaviour in a voluntary way, by motivating and enabling humans to acquire new insight and a better understanding of their own situation and the options for improving it. Insight cannot be administered, transferred, or bought; it must be gained through one's efforts – by learning – and this learning process is facilitated and supported by extension work (Hoffmann et al., 2009).

2. Background of Latvia Rural Advisory and Training Centre Activities

The accession to the European Union (EU) in 2004 was an important turning point for Latvia, which resulted in adopting the EU normative acts, inter alia requirements regulating agricultural activities. At the same time and along with establishing single area payments' structural measures support mechanisms changed. One of the often claimed basic benefits before and after the EU accession was the prospect of increasing support to Latvian farmers and following growth of economics and prosperity. Consequently it was implemented according to the first programming period 2004-2006 main priorities: uptake support appropriations assigned by the EU and organise agricultural development to integrate successfully in the EU common agricultural policy.

The second programming period requires continuing facilitation of rural development according to the country's rural development strategy. Therefore, the Ministry of Agriculture has prepared a middle term political planning document "Latvia Rural Development National Strategy Plan 2007-2013". If in the period of 2004-2006 the main strategic purpose was to acquire the EU financial support, then in the second programming period 2007-2013 rural development itself takes the central role in the Rural Development Strategy; however development of agriculture, as industry of national economy, providing production of agricultural products and provision of its related service, has become less important and less prior.

Exchange of information and expertise till today has remained as a serious drawback for the sustainable development of Latvia agriculture, as is regularly complained of by different profile farmers' associations and headlined in mass media. Lack of contemporary knowledge in business area, area of agriculture, production engineering and lately area of legislation has given a push for rural entrepreneurs to start up studies at Latvia University of Agriculture, become customers of Latvia Rural Advisory and Training Centre, and attend different courses and studies available in their parishes, become members of associations representing interests of rural entrepreneurs as well as look for other opportunities where they could acquire knowledge on topical issues.

The Regulation No. 1783/2003 of Council of Europe defines that all the EU member states, including Latvia, have to establish their household advisory services system. It is necessary to help the farmers meet modern and high quality agricultural standards related to environment and animal protection, plant protection and food harmlessness, animal well-being and good agricultural and environment conditions (Regulation No. 1783/2003 of Council of Europe). Consequently, on 9 May, 2005 the European Agriculture Guidance and Guarantee Fund approved the National programme "Establishment of Rural Advisory and Farms' Extension Service" and its project "Establishment of Rural Farms Advisory System" (hereinafter -Project). Latvia Rural Advisory and Training Centre was the recipient of the project finance in Latvia. The total amount of the project was

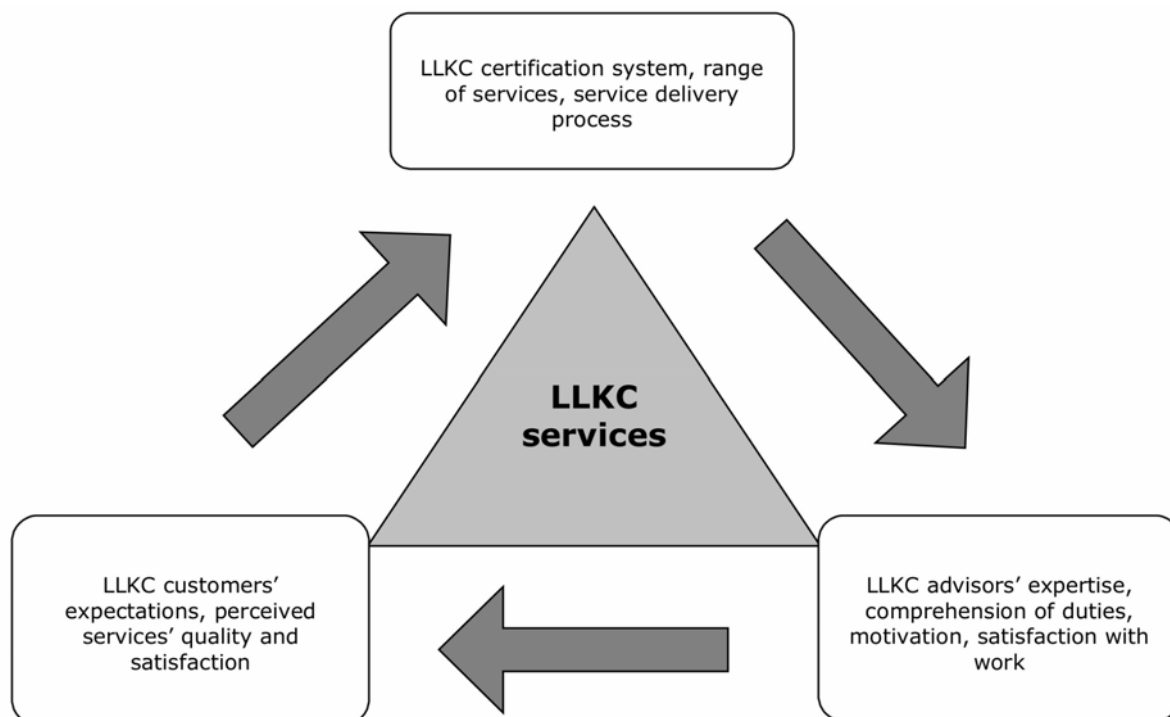
LVL 2 151 756 (Latvia Rural Development Plan for Implementation of Rural Development Programme 2004-2006).

LLKC with its 26 regional offices is the largest provider of rural advisory services in Latvia countryside. Of course this organisation was chosen for the implementation of the Project due to its durability, accumulated experience and good network of regional offices. Rural entrepreneurs can receive there help in problems connected with agricultural and non-agricultural entrepreneurship, including project development for receiving support from the EU structural funds, applications for loans to be received from banks and compiling of business plans. The direct goal of the Project was to increase the capacity of LLKC in order to adjust agricultural activities to the standards of the European Community related to environment protection, hygiene, animal well-being and good agricultural practice, to work out computer software for management of farms and agro environment planning, and to provide availability of information for farmers in order to favour the development of economically viable farms. After the implementation of the Project, the trained advisors of rural advisory offices are expected independently to provide consultations for the farmers about the standards demanded by the Council of Europe related to environment protection, hygiene and animals' well-being and good agricultural practice. Other goals of the project were to favour the development of professional skills for those rural entrepreneurs who are involved in agricultural, forestry and other activities, which are provided by memorandum of the European Parliament on the lifelong learning. The significance of preparing the farmers for qualitative reorganisation of the production was emphasised.

However, today the consequences of the Project finance allocation to LLKC has brought LLKC in a more privileged situation than other advisory services providers, and farmers often express dissatisfaction with LLKC passive service adoption to the market needs. Moreover, according to the Article 66(3) of Council Regulation (EC) No 1698 /2005, regarding the development of the National Rural Network and Latvia Rural Development Programme 2007-2013, it is planned to involve organisations, administrative bodies, ministries and their sectoral institutions in information summarisation, evaluation, coordination, and dissemination. The Ministry of Agriculture of the Republic of Latvia has chosen the LLKC as an administrative body of the National Rural Network. The agricultural associations have already claimed concern about the lack of transparency in the development process of the National Rural Network and trusting establishment of the network to organisation unable to provide competitive and market driven advisory services.

3. Service quality assurance problems at LLKC

In reality, the clients are usually not a homogeneous mass but consist of a wide variety of different groups. Clients are not only farmers, either. In agricultural extension, the one has to deal with subsistence farmers, market-oriented farmers,



Source: made by the author

Figure 1. Stakeholders of LLKC services and their interaction

professional groups (herders, seed production associations, vegetable producers), social groups (women's groups, micro credit groups), traders, and all kinds of actors in the value chains of land use products as well as employees of governmental and non-governmental organisations. These clients can be divided up according to geographical and ethnic origin, sex, age, social status, production orientation etc. In any analysis and work planning these considerations need close attention (Schmidt et al., 1998).

A company's quality assurance programme is a significant tool for enabling constant monitoring and perfection of provided services for all customer groups. The headstone of LLKC quality assurance refers to its employee's certification system. The present advisors' certification system, adopted by LLKC, provides internal certification attributing advisors to five qualification levels: junior specialist, specialist, senior specialist, consultant, and consultant-expert. Besides, skills and expertise are evaluated in the scope of particular area the advisor is intended to work (horticulture, cattle breeding, project compiling etc.). In addition to the speciality issues, an integral part of LLKC advisors' internal training programme are courses in – communication psychology, pedagogy, legal issues, public speech and presentation, information technologies. Moreover, the advisors receive regular training in seminars, demonstrations etc. Consequently, the becoming and existent advisors at their workplaces are plentifully provided with a wide range of courses, which should have been resulted in increasing quality of LLKC services. However, the author's research

data, focusing on rural advisory services in Latvia, which were obtained in the period of 2005-2008, reflect that both LLKC customers and advisors still lack confidence about the present quality of services provided by LLKC. This suggests an idea that the present way of service delivery and/or quality of services is not yet well considered. Despite allocation and use of plentiful financing there are still gaps in service provision, which should be eliminated. After researching service delivery process at LLKC in 2007, the author has reflected the stakeholders of the LLKC services and spheres of their interaction in Figure 1.

At the present situation LLKC initiates, designs and tailors services for rural entrepreneurs. However, probably due to LLKC favourable instant position of being a recipient of national scope rural development projects, its vigilance in keeping up with the advanced technologies and service delivery perfection have been disregarded. In contrast there are 26 regional LLKC offices in all Latvia, which is a positive point since every region has its own office located nearby. Besides, alongside with LLKC advisors, rural development specialists are as well hired by local authorities and can receive customers there. From this point of view farmers can regularly access advisory services close to their farm location. But the question is – whether services, provided in all these advisory centres comply with farmers' needs and requirements.

According to the service quality management guidelines, there is always a risk that when quality is defined too narrowly, quality programmes become too narrow in scope. In the company one has to define quality in the same way customers do, otherwise, in

quality programmes, wrong actions may be taken and money and time may be poorly invested. It should always be remembered that what counts is quality as it is perceived by customers (Grönroos, 1990). Consequently, all training strategies and employee certification in LLKC should be customer-guided but not imposed by the governing bodies like it is being practised at present.

4. Impact of customer satisfaction in developing customer-guided services quality

Theory development in the area of quality is an important work that still continues. Dr. Scott Sampson of Brigham Young University is a researcher who is developing theory in services management. His unified theory for services management provides interesting insights for quality management. This theory consists of several propositions. These propositions are based on the definitions of services that were introduced early in this chapter. Some of the propositions are as follows:

Proposition 1: The Unified Services Theory. With services the customer provides significant inputs into the production process. With manufacturing, groups of customers may contribute ideas to the design of the product; however, individual customers only part in the actual process is to select and consume the output. Nearly all other managerial themes unique to services are founded in this distinction.

Proposition 2: The Unreliable Supplier Dilemma. With services, the customer suppliers often provide unreliable inputs. "The Unreliable Supplier Dilemma" occurs because service customers provide themselves their belongings and/or their information as process inputs (by the Unified Services Theory). This simultaneous relationship as supplier and customer

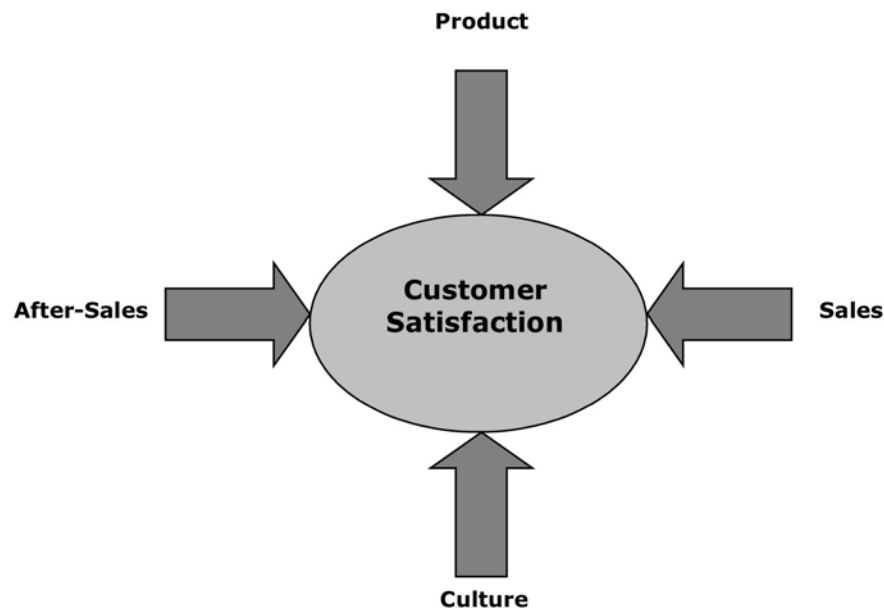
makes it difficult for the service provider to control the supplied inputs.

Proposition 3: Capricious Labour. With services customer-labour may ignore, avoid, or reject technologies or process improvements which are intended to increase quality and productivity. As a result, customer buy-in process changes must be carefully addressed. Capricious labour occurs because many services customers provide themselves as labour inputs into the production process. In manufacturing organisations labour is expected to conform to corporate policy. If the manufacturer mandates that a quality initiative be implemented, labour is expected to conform even when labour thinks the initiative is a bad idea (Sampson, 1998).

Since customers, by purchasing services, take an active part in the service delivery process, they also cause problems for service providers. For example, time provided for the service delivery process – sometimes rendering the same service to two different customers time period, necessary for the service provision, can significantly differ, which makes service time planning complicated for the service provider. Therefore, even if customer is in the central part of the company's efforts, exactly customer is the one who caused problems for the service provider to deliver services duly. In contrast customer who actively participates in the service delivery process obtains more control over it and can adopt it in the way, which is more favourable for him or her.

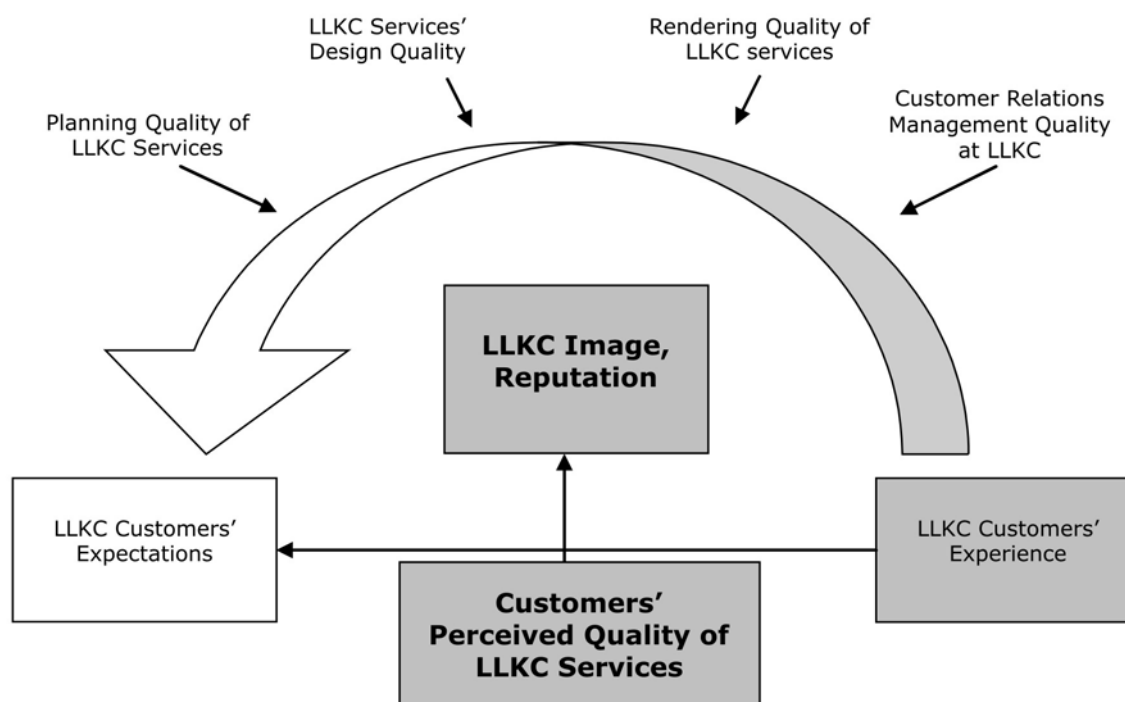
Customer satisfaction theory distinguishes four main factors influencing customer satisfaction: variables connected with the product, variables connected with sales activities, after-sales variables, and variables connected with culture.

The product factors include product planning and design fundamentals respecting customer



Source: ISO 9001:2000 prasību skaidrojums KVS 2.daja (2002)

Figure 2. Customer satisfaction factors



Source: made by the author according to Gale Bradley T. (1994)

Figure 3. 4Q model illustration in LLKC context

needs, which in turn stimulate designers, planners, producers, and quality control specialists.

A sales activities' factor includes information, which is transferred to a customer through product promotion activities. Here sales personnel selection and management as well as sales personnel implemented relations with customers are the most important elements.

Dealing with customers' requests and complains form the after-sales factor.

The culture factors include the values, which are proclaimed and accepted in the inner environment of the company – tangible and intangible symbols and systems.

Certainly the customer needs change in the long run. The level of customer satisfaction depends on interrelations between the expected quality and experienced quality as well as on company image. In Figure 3 the author has adapted 4Q Model, attributing the four quality dimensions to LLKC rendered services, reflecting how the four quality dimensions and customers' previous experience influence customers' expectations for LLKC services and how the final perceived service quality is formed, which in the long run will further form LLKC image and reputation in farmers word-of-mouth communication.

Conclusions

1. Due to the initial favourable position of LLKC being a recipient of national scale projects' finance and lack of competition in the market of

advisory services, LLKC vigilance in keeping up with perfection of its employees' expertise and improvement of services delivery have lately been disregarded.

2. At present the LLKC internal job appraisal and certification system provides a complex programme of testing, evaluation, and training of the staff. But all that effort is top-down oriented, administered by the LLKC top management, and job performance is not sufficiently defined by criteria and indicators of clients' satisfaction. The programme provides a wide range of courses both in special expertise as well as in general knowledge and skills like psychology, pedagogy, legal issues, public speech and presentation, and IT.
3. Customers provide significant inputs in the services' production process. Therefore customers who actively participate in the service rendering process obtain more control over the services' quality and consequently can help the service provider adopt it in the way, which is more favourable for customers.
4. In order to reengineer and improve the existing LLKC quality management system, LLKC customer service department has to involve customers more actively in the services quality assessment process detecting quality expectations of the existing and potential customers and subsequent satisfaction with the purchased services. The flow of information and consequent directions of activities has to be reversed, bottom up instead of top-down.

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Territory Outlook for the Expansion of Large Scale Shopping Centres in Latvia

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Abstract. The present paper has an analytical and informative character on the chosen theme. The authors clear up the meaning and importance of territory concept in large-scale shopping centres as real estate object allocation planning.

The authors have applied the theoretical and practical knowledge synthesis for the analysis. The general statistics was the basis for the macroeconomic situation overview. Market potential calculation was made based on the analytical data of the international scale. Official real estate data and publications, and Riga Real Estate Market studies served as basis for the analysis on microeconomic level in the current scientific paper. The carried research results on the level of market saturation of large scale shopping centres in Riga are compared with the situation in other European countries from 2007 to 2015.

According to the present research real estate market of large-scale shopping centres has reached the saturation phase in Riga; however for Latvia there is a certain potential to attract new markets and new opportunities. The researchers have found a surplus of large-scale shopping centres' commercial leasable area in the medium-term, and thus they suggest developing new real estate objects professionally and attracting interest of the international partners for opening business in the territory of Latvia.

Key words: spatial planning, territory, large-scale shopping mall.

Introduction

It is common for Latvian real estate market to look for the short-term or medium term perspectives. Only few years ago real estate consultants started offer professional deep analysis of a real estate object to the land owners – feasibility studies, location analyses, reviews on the strategic situation in regions, market capacity studies, and other practical analytical studies. The focus on Riga city development concept instead of the country development on the international investment arena causes a big misbalance in real estate market development by regions. The present research was carried out with a purpose to outline the current real estate market emplacement of large-scale shopping centres and mark further development trends.

The following tasks were set as a target for the research:

- 1) to provide a brief theoretical and practical survey on the meaning and importance of territory concept related to large-scale shopping centres as real estate object allocation planning;
- 2) to evaluate saturation of Latvian real estate market in the sector of large scale shopping centres;
- 3) to calculate the potential density of real estate market in the sector of large scale shopping centres in Europe;
- 4) to present the research results on real estate market expansion potential in the sector of large scale shopping centres of Latvia within the country, the Baltic States and Europe.

The authors have applied a theoretical overview of the issues on large-scale shopping centres and territory concept to the practical samples. Official statistics and real estate data served as basis for the research. The authors have analysed the official real estate data and publications to evaluate a local real estate market capacity, and to mark the current tendencies. The location research results were used to determine the development opportunities for large-scale shopping centres real estate market of Latvia.

Foreign investors and developers used to trust the opinion and research data of the international professional organisations. One of the meetings on practical exchange of experience and motivating local specialists to improve the local market knowledge was organised by the International Council of Shopping Centres (ICSC) on November 24, 2006 in Riga. The proposed discussion touched upon a subject of maximisation the yield on shopping centres in a booming market. The presentation contained practical background on retail trade and shopping centre market overview in European countries, risks and opportunities on a fast growing market.

The draft project "The Development Concept of the Spatial Planning System" and sustainable development strategy of Latvia up to 2030 was discussed in working groups by the Ministry of Regional Development and Local Government. One of such working groups was organised on June 11, 2009. All the experts underlined timely character insufficiency in the earlier existing solutions for the

Location format	1 000 — 2 000	4 000 sqm land plot size	central and/or on the edge of CA, attached to freeway, excellent access for car-drivers
Clients CA*	10 000 — 20 000	30 000 inhabitants	densely populated districts area
Building scale	1 — 2	Multi-storied	connected or erected separately buildings on one land lot
Min GLA	3 000 — 5 000	10 000 sqm	parking highly required
Anchor tenant, GLA	100 — 1 500	3 000 sqm	minimum 1 anchor tenant, compact hypermarket

Source: Kotler Ph., 1997; Lusch, Dunne and Gebhardt, 1993; Wikipedia, 2009

Figure 1. Large-scale shopping mall characteristics¹

topic of spatial planning in the country's territory development vision. There is a concrete demand on the indiscrete and balanced real estate market development of the country.

The current paper is the first part of research series planned by the authors on territory economic spatial planning and long-term development in Latvia.

Results and discussion

The essence of large-scale shopping malls

The shopping and entertainment centres are considered to be big real estate objects. Figure 1 illustrates the major guidelines in detecting the large-scale shopping centre minimum requirements in both practical and theoretical meanings.

The leaseholders of large-scale shopping malls may represent many retail profiles: grocery and non-food stores, service and entertainment objects. One of the most distinctive factors for the locations of large-scale shopping malls is to ensure the flow of potential consumers through the existing freeways and public transportation stops.

The concept of territory may be applied towards a symbol of location of any real estate object, or a land plot, or a body of land plots. In a wider sense, **a territory** is the place of the existing or potential entrepreneurship, where the interests of three population groups are met: the population (represented by the state itself from the standpoint of macroeconomics); the entrepreneur or developer

and/or investor, and the partners of potential deal (tourists, potential investors, collaboration partners etc.) (Ministry of Regional Development and Local Government, 2009). Territory plays a very important role in the spatial design planning, since a territory is an actual place, where the interaction of the external and internal aspects is really taking place. The utilisation of a territory or economically justified action to deploy there a particular real estate object of a specific kind and type promotes and provides the direction of the long-term business development in the country.

Real estate market potential of large-scale shopping centres in Latvia

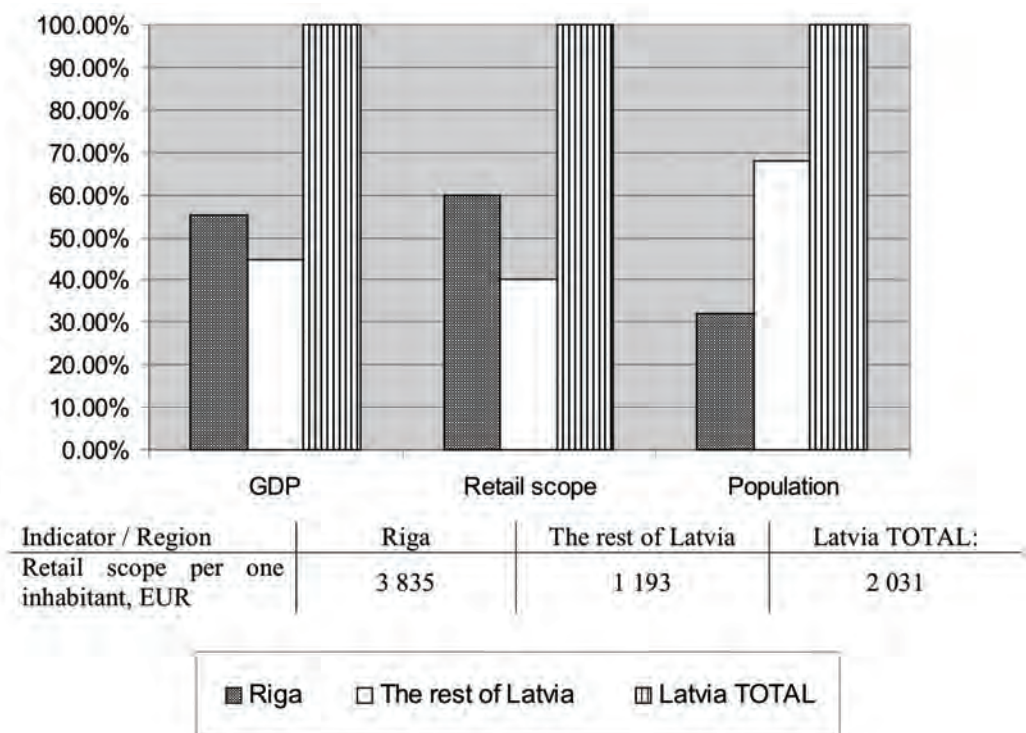
Analysing the development perspectives, the investor would be willing to examine such data as the economic situation, which, in case of Latvia, would mean the primary necessity to study the market of the capital city – Riga. Historically, Riga has played the main role in the economy of Latvia. According to the latest statistical data, about 55% of Latvia's Gross Domestic Product (GDP) and approximately 60% of Latvia's retail scope² is concentrated in Riga (Central Statistical Bureau, 2009). The retail scope per one resident in Riga is more than 3 times higher compared with the rest of the territory of Latvia (Figure 2).

There were no large-scale shopping centres in Latvia 15 years ago. Due to the favourable economic situation and the low level of real estate market development, many professional developers

¹ Legend: CA – catchment area

GLA – gross leasable area

² Retail business, except cars, motorcycles, and gasoline; repair services of the individual usage items, household equipment and installations



Source: Central Statistical Bureau of Latvia, 2009

Figure 2. The Capital city dominance in the economy of Latvia

and investors of the Baltic Sea region demonstrated great activity in the development of Latvian retail market: ICA/Ahold Ltd (net of the RIMI stores) – alliance from the Netherlands, Norway, and Sweden; Linstow Ltd (the current Galactico owned shopping centres – Mols, Alfa, Origo etc.) from Norway; Vilniaus Prekyba Ltd and Palink Ltd (consequently, net of the Maxima and IKI stores) from Lithuania. Due to the obtained experience in their countries of origin and based on the results of spatial planning, these companies have developed several shopping malls and stores in the first-priority locations, thus facilitating the establishment of high level turnover and non-stop interest of potential leaseholders and investors.

The development of large-scale shopping centres was started in the part of capital city with high concentration of economic activity and the most intensive flow of potential customers. The investors' interest to build large-scale shopping centres was attracted by the locations with the following characteristics:

- close to the historical cultural and business centre of Riga (over 120 000 permanent residents plus over 80% daily potential consumers) with intensive pedestrians and transport flow;
- residential areas of:
 - a) high employment rate (over Riga average);
 - b) high population density (highly populated residential areas);

- c) population explosion (one of the reasons for implementation of new dwelling projects);

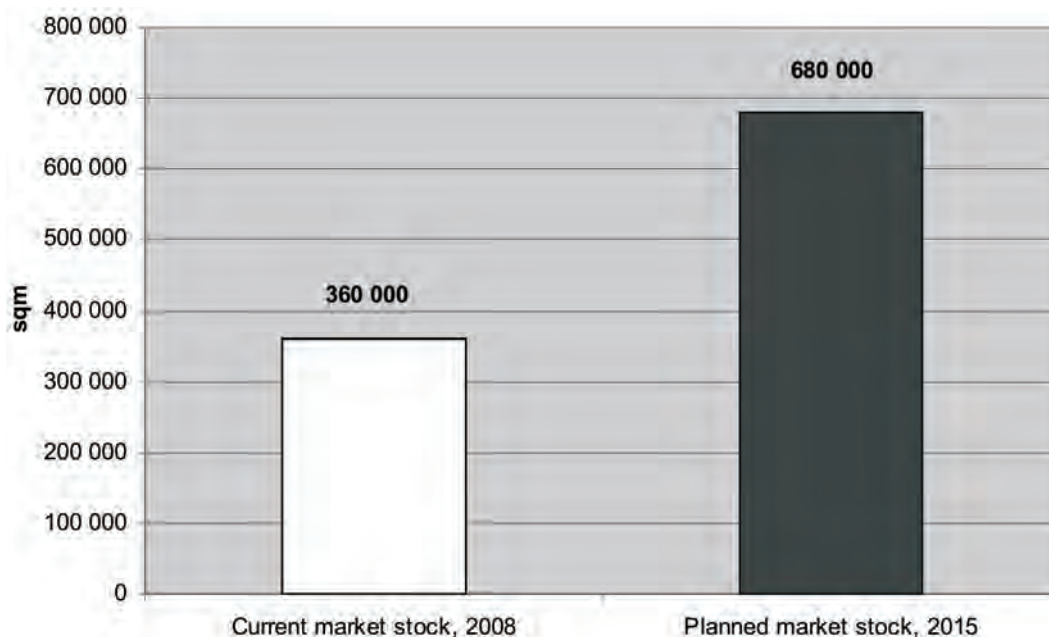
- next to transportation connection points (bus station, central railroad station);
- attached to centrally located roadways (Brīvības, Krasta and Barona streets);
- in the large-scale non-built territories on the borderline of residential areas;
- in the territories of old factories.

The statistics show the planned increase of the analysed market stock about twice as present. The current economic recession might cause longer delays in the projects implementation terms.

According to the research data based on deep outlook on the current stock of large-scale shopping centres real estate market, the saturation phase in Riga has already been reached (Table 1).

Sales deal between the biggest developer, Linstow Ltd and the investment fund ACTA (Norway) involving shopping malls Alfa, Mols, and Dole owned by Linstow Ltd, with total area over 150 thousand square meters is an evidence to the market saturation (Zvērinātu advokātu birojs *Raidla Lejiņš & Norcous*, 2006).

The market expansion opportunities are the reason of the market supply increase. Riga agglomeration causes more qualitative than quantitative market changes. The municipality of Riga is planning such projects as "Park and Ride" (which means providing special parking for out-of-town passengers at the outskirts of Riga with guaranteed downtown public transportation rides), multiple-usage real estate



Source: Kossovičs M., 2008; Riga Municipality, 2009; official review data of the shopping centres Stockmann, Riga Plaza, 2009; official review data of the shopping centre Alfa, 2008; summary data of the shopping centres projects Galleria Riga, Cube City, Riga Akropole, 2009; Linstow Ltd portfolio, 2009

Figure 3. Real estate market stock analysis of large-scale shopping centres in Riga³

Table 1

Evaluation of large-scale shopping centres market saturation in Latvia⁴

Regions	The total shopping malls commercial leasing area, sq.m per 1 000 inhabitants	
	Year 2007	Year 2015
Riga	499	931
Latvia	158	295

Source: Kossovičs M., 2008; Riga Municipality, 2009; Central Statistical Bureau of Latvia, 2009; official review data of the shopping centres Stockmann, Riga Plaza, 2009; official review data of the shopping centre Alfa, 2008; summary data of the shopping centres projects Galleria Riga, Cube City, Riga Akropole, 2009; Linstow Ltd portfolio, 2009

objects, and others (Golubevs R. Mārcis Budlevskis, 2008; Central Statistical Bureau of Latvia, 2009).

Riga suburb inhabitants are the target customers for Riga's large-scale shopping centres according to the close location and high disposable income level.

Figure 4 illustrates that large-scale shopping centres could increase their market share also in the rest of Latvia regions (except Latgale region), which demonstrated even higher rates of increase of monthly disposable income than in Riga.

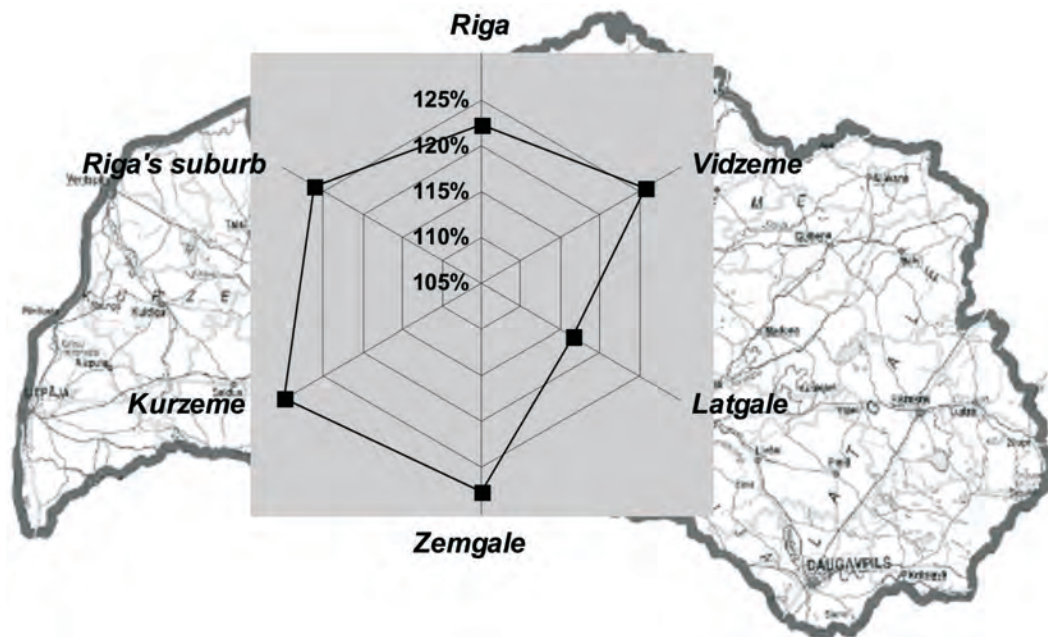
Latvia state scale is rather small in comparison with the rest of Europe. The local real estate market expansion is a pace towards the Baltic States consolidation.

A certain current demand to develop efficient economy for Latvian large-scale shopping centres market would mean to analyse the potential inland, in the neighbouring-countries and look for the expansion opportunities in a longer-term period.

Under the circumstances if Latvia economy is able to attract foreign consumers interest and integrate into the European economy development at a fast pace as capable and active state, the next phase of large-scale shopping centres' development would be the expansion of the objects which territories format allow further development, and retail park projects implementation (e.g. Linstow Retail Park project in Saliena). It would mean efficient market campaigns

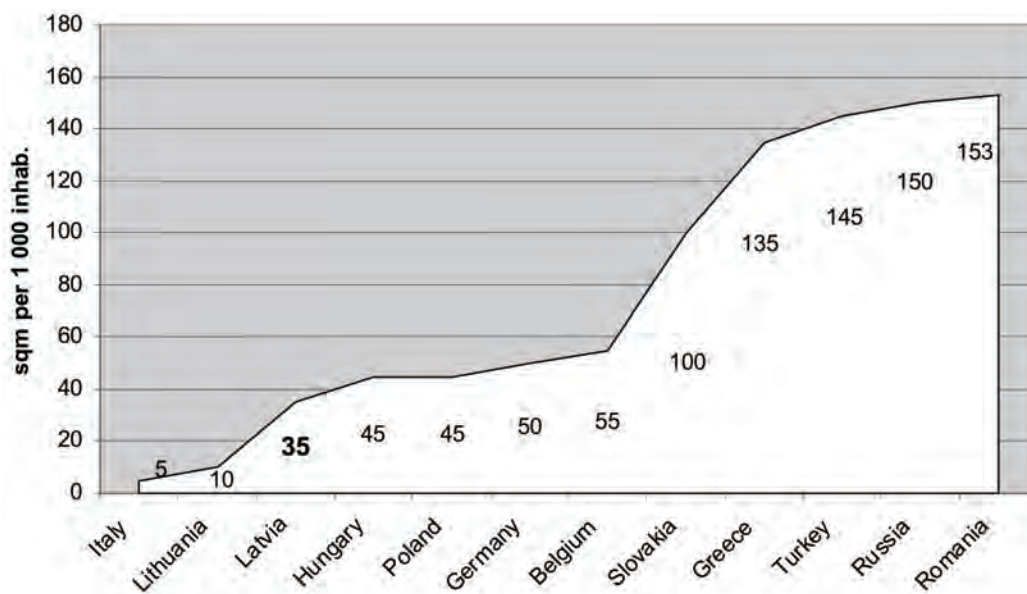
³ according to the data of 2009

⁴ Comment: A constant number has been adopted as a population number based upon the current official statistical data [21]



Source: Central Statistical Bureau of Latvia, 2009; Latvijas karte Maps, 2009

Figure 4. Monthly disposable income per household, average rate of increase by the regions in Latvia



Source: Re&Solution Ltd, 2008; Eurostat, 2007; Institute of Demography, 2007

Figure 5. Potential large-scale shopping centres real estate market density in Europe

within spatial planning, attracting clients from the distant residential areas and strengthening the loyalty in the current catchment area.

According to the results of the market analysis provided in 2007 by the worldwide real estate consultancy Company Jones Lang LaSalle, the density of the European shopping centre market is approximately 170 sq.m per 1 000 inhabitants (Re&Solution Ltd., 2008; Eurostat, 2007; Institute

of Demography, 2007). It is the leading indicator among the professional developers of the shopping centres and investors when looking for territories for new projects.

Figure 5 supplements the results of the analysis, helping conclude that the market participants from the Baltic Sea region and the Western Europe are ready to expand their knowledge towards other countries. The barometer of this activity shows

that there are almost more than 455 million people (under the provision that the population number keeps constant) at the territory of the potential development.

Under the provision that the average indicator in the territory of Europe is approximately 170 sq.m per 1 000 inhabitants, while planning big format commercial objects, their number may reach 4 400 projects. Thus Latvia would have, in addition, approximately, 80 000 sq.m of total commercial square area.

The collaboration with foreign investors has caused the improvement of professional knowledge of local market specialists. The research on the large-scale shopping centre's market density increase in Latvia results in the surplus of commercial leasable area in the medium-term, while international market becomes optional for Latvian specialists to develop new real estate objects professionally and attract interest of international partners for opening business in the territory of Latvia.

Conclusions, proposals, recommendations

The following brief retrieval is settled on the carried research results.

1. Large-scale shopping centres are one of the real estate market development level ratios. These real estate objects attract a close investors' attention.
2. Theoretically, the large-scale shopping centres may serve for both local catchment area needs and satisfy demand of larger regions, even on the macroeconomic scale.
3. Currently Riga capital dominance in Latvia's economy development is obvious.
4. Even if the large-scale shopping centre is the object of potential jobs, mainly it means consumer expenditure. Here, the region as allocation place of the large-scale shopping centre might be characterised of low unemployment rate in comparison with the average country level and quite developed transport and commercial infrastructure.
5. The closest areas to Latvia's capital city provide the official statistical growth of consumer potential.
6. However, on the European scale, Latvia is a small country. One city (Riga capital) development may not assure the entire country development.
7. Latvia's large-scale shopping centres real estate market has been developed at a very fast pace.
8. The major investors and developers of Latvia's large-scale shopping centres real estate market are natively from the Baltic Sea region. Their professional knowledge was adapted from the core Europe and own practical background.
9. Under the provision of the average European indicator, Latvia would easily adopt, in addition, approximately, 80 000 sq.m of total commercial square area.
10. Riga large-scale shopping centres real estate market has already reached the saturation, but

it is planned to double in the near 5-10 years. The projected potential 80,000sq.m would even be overbalanced.

11. The local specialists have already got out a practical professional experience and may be ready to raise the potential of local market in a long-term perspective and cultivate the other markets.

The problem of Latvia's large-scale real estate market lapsed development is posed. The major directions for the current market niche are obvious and both possible in qualitative aspect on a local scale and international level. The spatial planning is a theme, which comes in support of an efficient real estate market strategic outlook.

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Some Issues of Food Consumption Expenditure and Consumption Inequality in Latvia

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Abstract. The studies in the field of food¹ consumption are prevalent object of the research and show increasing importance or significance for developing the international and national policies and related economic instruments in relevance with the society's welfare. The qualitative and quantitative research methods are used for the studies. The paper presents main results of the studies aimed at estimation of food consumption expenditures and consumption of the staple food products (main groups) in Latvia's households, where the different income levels (quintiles) have been taken into consideration. The research covers the estimation and comparison of the trends of share of expenditures for food and differences of expenditures for food groups and different products by income level. The patterns and trends of consumption of quantity of staple food product groups have been evaluated and compared among different quintiles of the households. Special attention has been paid to the main product groups such as bread and cereals, oils and fats, sugars, meat and meat products, milk and milk products, and vegetables and fruits.

Key words: food consumption, expenditure, household, income, quintile, Latvia.

Introduction

The importance of consumption in modern societies is constantly growing and consumption processes are constantly gaining (Hansen, U., Schrader, U., 1997). On the European Union (EU) level^{an} agreement has been established that the consumption is responsible when it takes into account its impact on the quality of human life in its every dimension: health, natural resource management, the economy, spatial planning, the environment, the fight against poverty and social exclusion, social life, culture, etc. (Council of Europe, 2006).

The studies in the field of food consumption are very important for developing international and national policies and implementing policy-related economic instruments, which are oriented at assurance of food security; satisfaction of public demand for health and well being inter alia healthy diet, and elimination of the food poverty. According to the widely accepted definition of the World Food Summit (1996), food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. The World Health Organisation (2010) stresses that the food security is built on three pillars:

- Food availability: sufficient quantities of food available on a consistent basis;
- Food access: having sufficient resources to obtain appropriate foods for a nutritious diet;
- Food use: appropriate use based on knowledge of basic nutrition and care as well as adequate water and sanitation.

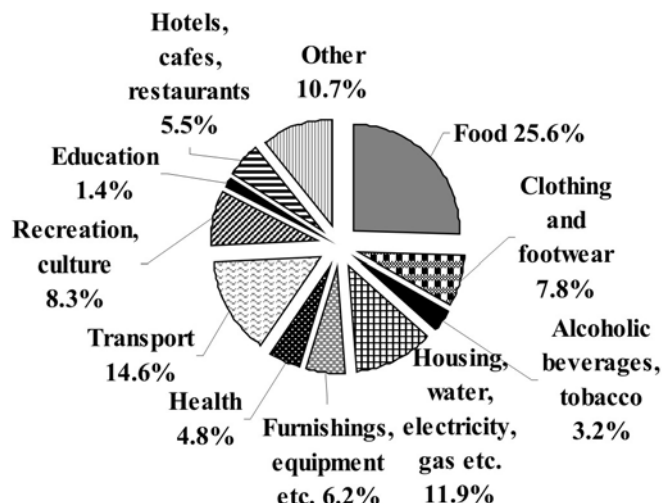
Commonly, the concept of food security is defined as including both physical and economic access to

food that meets people's dietary needs as well as their food preferences. B. Senauer and T. Roe (1997) pointed out that the food security was, therefore, ultimately a household and individual-level issue. Nutritional status is internationally recognised as an indicator of national development. The FAO (2004) recognises that healthy, well-nourished people are both the outcome of successful social and economic development, and constitute an essential input into the development process. The EU has always been in the frontline in addressing the challenges of food security and the EU has a lasting commitment to promote food security throughout the world. The European Consensus on Development (European Parliament Council Commission, 2006) affirmed that the EU would continue its work to improve food security on the international, regional and national level.

The growing awareness of food poverty² as a structural constraint on food consumption and dietary intake among low-income groups, and its multi-faceted consequences for health, education and social participation (Goodman, C., Anise, A., 2006), are outlined in the national policies of many countries inter alia developed, for instance, Ireland (Friel, S., Conlon, C., 2004). M.H. Gossard and R. York (2003) cited Stern et al. argue that consumption can only be properly understood through the analysis of multiple factors: social, economic, technological, political, and psychological. M. Gehlhar and W. Coyle (2001) argue that the consumption patterns are a function of many factors and not always directly related to income changes, and some food commodities may experience not only a decrease in the share of food expenditure but an absolute decline in per capita consumption.

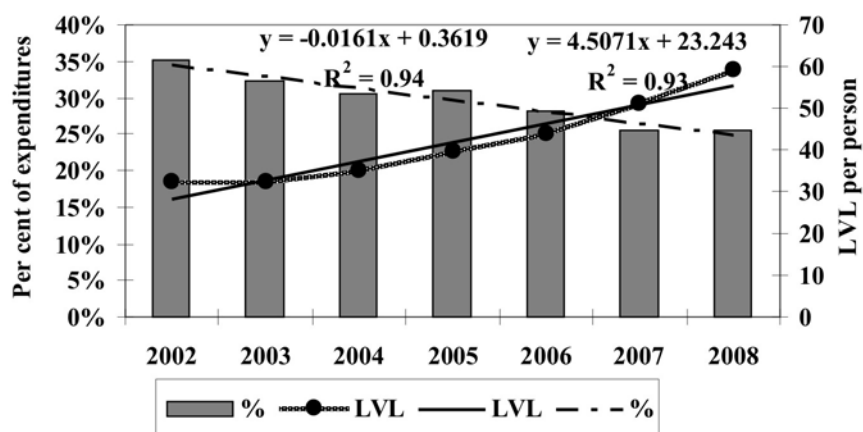
¹ Food in this paper - food and non-alcoholic drinks

² Food poverty - insecurity and inadequate diet



Source: author's calculations according to the unpublished data of the Central Statistical Bureau

Figure 1. **The composition of total nominal consumption expenditure by Latvian households, 2008**



Source: author's calculations according to the data of the Central Statistical Bureau and Spārīte, 2009

Figure 2. **The average share of food consumption expenditure (% and LVL⁵) per capita in all Latvian households, 2002-2008**

The research **aim** is to estimate the trends of food expenditures and prices in Latvian households with different income levels.

The **object** of the research is food consumption patterns and their trends; inter alia consumption of different groups of food products, including different income groups.

The study includes the following **tasks**: to estimate 1) the structure and trends of inhabitant's food expenditures and; 2) food consumption patterns and trends of the past years and their dependence on the different income level of households.

The principal **materials** used for the studies are as follows: different sources of literature, research papers, and reports of institutions, published and unpublished data of the Central Statistical Bureau of Latvia³ (CSB) as well as the database (1997-2007⁴)

of Household Budget Survey (HBS) done by the CSB. Both qualitative and quantitative research **methods** were used in this study: analysis, data grouping, reference, logical and abstract constructive methods etc. The analysis methods include: ratio analysis, historical trend analysis, and linear regression analysis by means of software tools.

Only the most important research results are set out in the paper due to the limited space.

Results and discussion

1. Food consumption expenditures

M. Gehlhar and W. Coyle (2004) believe that the share of a household's budget devoted to food generally falls as incomes rise, while the share of expenditure for services rises. However, not all

³ Centrālā Statistiskā pārvalde. Mājsaimniecību budžetu pētījuma galvenie rezultāti 1998-2007

⁴ Report of results of household's budget survey in 2008 have not been issued by CSB at the end of 2009

⁵ National currency lats, where LVL 1= EUR 0.70248

shares within the food sector fall proportionately due to the household's preference for diet upgrading. This behaviour can be empirically measured and represented in a demand system used for formal modelling applications.

In recent years, particularly after Latvia joined the EU, the share of food consumption expenditure is 25.6% (Figure 1) and has significantly declined (Figure 2) by 10% since 2002.

Even though in Latvia the share of per capita expenditures for food in Latvia's households decrease, the share still remains high, as compared with other countries, and according to some researchers' (Regmi, A. et al., 2001) rating, Latvia belongs to the group of middle income countries on the global level. Moreover, the food expenditure is considerably higher than the average share of the old EU member states, for instance, more than twice as in Austria – 13% (Friedl, B. et al., 2008; Pack, A. et al., 2006).

Latvian household's structure of consumption expenditure in 2008 compared with 2007 has almost not changed which shows that there is certain stagnation in this field. The main priority of the household consumption expenditure has been food, which is one of the internationally comparable welfare indicators. The growth of consumption expenditure on food in the total household consumption expenditure is always considered as a negative factor (Regmi, A. et al., 2001; Trichopoulou, A., Naska, A., 2003).

In Latvia the expenditure on food has increased from LVL 51 to LVL 59 on average per household member monthly (Spārīte, L., 2009). In the poorest or low-income households – Quintile 1 the average consumption expenditure constituted LVL 124 per household member monthly. These households spent 35% on food, while on housing – 14% of their consumption expenditure. The consumption expenditure of Quintile 1 households reached 53% of average household consumption expenditure level in the rural areas, where 24% of total country population lives in the poorest households. The consumption expenditure of 20% of the richest Latvian households (Quintile 5) was LVL 419 per person monthly; and it is 1.8 times above the average. Summarising the data provided above, we can conclude that the difference or inequalities between the poorest and the richest households still remain.

The results of comparing the share of food consumption expenditure in per cent and income level in lats (LVL) of different income groups – quintiles of Latvian households, show (Figure 3) that the differences between income level and share of food consumption expenditure of quintiles or income level groups are significant (income level between quintiles – $r = 0.99$, $\alpha = 0.01$; share of food consumption expenditure between quintiles – $r = 0.94$; $\alpha = 0.05$).

In the study performed by M. Gehlhar and W. Coyle (2001) the different economic factors have been identified and explained. Of these determinants, income growth and its impact on food consumption was named as the most important and it explained the changes in food consumption patterns. At the same time, these authors indicate that consumption patterns are a function of many factors and not always directly related to income changes. The authors consider that the degree to which a demand for a good changes with a change in income depends on whether the good is a necessity or a luxury. The demand for necessities will increase with the increase of income, yet at a slower rate. It is because consumers, instead of buying more than they need, will want to use their increased income to buy more of a luxury. During a period of increasing income, demand for luxury products tends to increase at a higher rate than the demand for necessities. The influence of different factors on food consumption varies and depends on the economic development and social conditions.

The findings of trends or the results of correlation and regression analysis of expenditure for food consumption by different quintiles of Latvian households in the period of 2002-2007 are presented in Table 1 and show the significant declining trends of expenditures ($\alpha = 0.01$) for all quintiles.

2. Differences between income groups or quintiles

A. Regmi et al. (2001) stresses that low-income countries spend 47% of their total budget on food on average compared with high-income countries that spend only about 13% on food on average. Staple food products account for a larger share of total food

Table 1

The significance of trends of expenditure for food by different quintiles of Latvian households in the period of 2002-2007

Quintile	R ² ⁶	r ⁷	Significance level
Quintile 1	0.99	0.99	$\alpha = 0.01$
Quintile 2	0.97	0.98	$\alpha = 0.01$
Quintile 3	0.94	0.97	$\alpha = 0.01$
Quintile 4	0.88	0.94	$\alpha = 0.01$
Quintile 5	0.93	0.96	$\alpha = 0.01$

Source: author's calculations according to the unpublished data of the Central Statistical Bureau and Spārīte, 2009

⁶ R² – coefficient of determination

⁷ r – coefficient of correlation

budget in low-income countries than in higher income countries. These conclusions can relate to Latvian household's quintiles groups, because the highest income group (Quintile 1) spent 18.2% of total expenditure for food consumption, while the lowest income group (Quintile 5) – 53.7%. Comparing the relationship of prices of all staple food products' groups, which were consumed in 2007, and income level or quintiles, we can see (Figures from 4 to 7) that higher income groups consumed more expensive products than lower income groups.

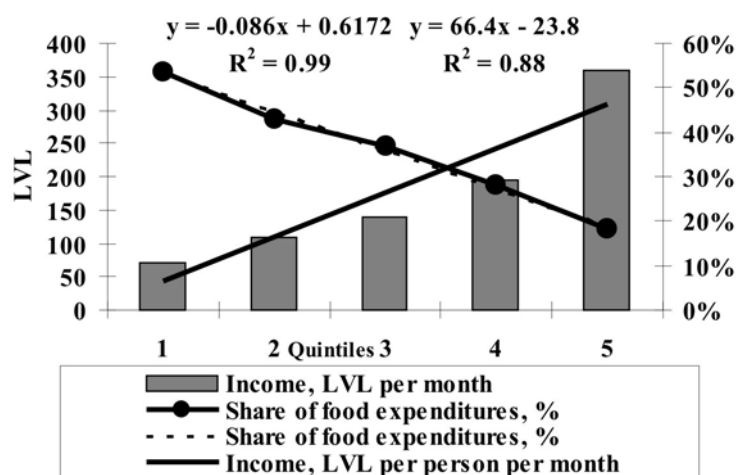
The differences between quintiles' consumption are significant ($\alpha = 0.05$ or $\alpha = 0.01$) for all staple products or product groups. For instance, the differences between the price of consumed bread and cereal products and by quintile groups or income level of Latvian households (Figure 4) are significant, where $R^2 = 0.92$; $r = 0.96$, $\alpha = 0.01$; the consumption of more expensive oils and fats significantly related to income level, where $R^2 = 0.89$; $r = 0.94$, $\alpha = 0.05$.

Summarising all findings regarding prices of staple food products bought by different quintiles, we can make conclusions that the richest households have consumed more expensive products, while the poorest families have chosen cheaper and less qualitative food.

3. Differences in consumption of staple foods by income level

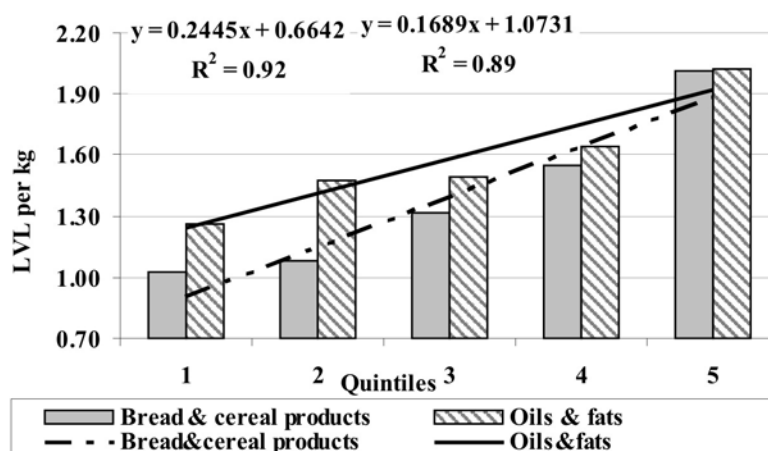
It is well documented that household's dietary intake quality and socio-economic status are interconnected, and limited income restricts access to nutrient-dense food, which puts low socio-economic status populations at risk for developing unhealthy diet patterns and chronic diet-related diseases (Ball, K. et al., 2006; Darmon, N., Drewnoski, A., 2008; Dubowitz, M. et al., 2008).

The differences and inequalities of food consumption are viewed in two aspects:



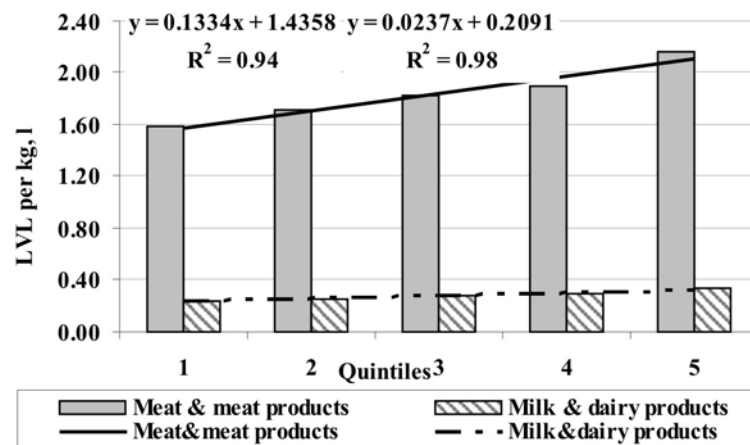
Source: author's calculations

Figure 3. The share of food consumption expenditure (%) and income level (LVL) in different Latvian household quintiles, 2007



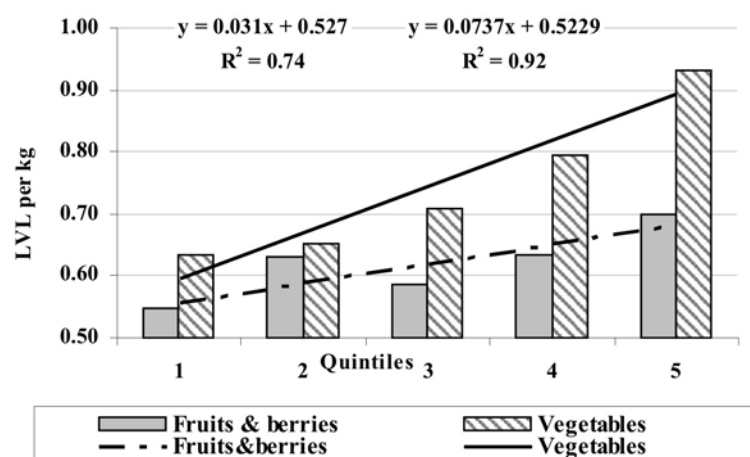
Source: author's calculations according to the unpublished data of the Central Statistical Bureau

Figure 4. The relationship of prices (LVL/kg or l) of consumed bread and cereal products and oils and fats by quintiles of Latvian households, 2007



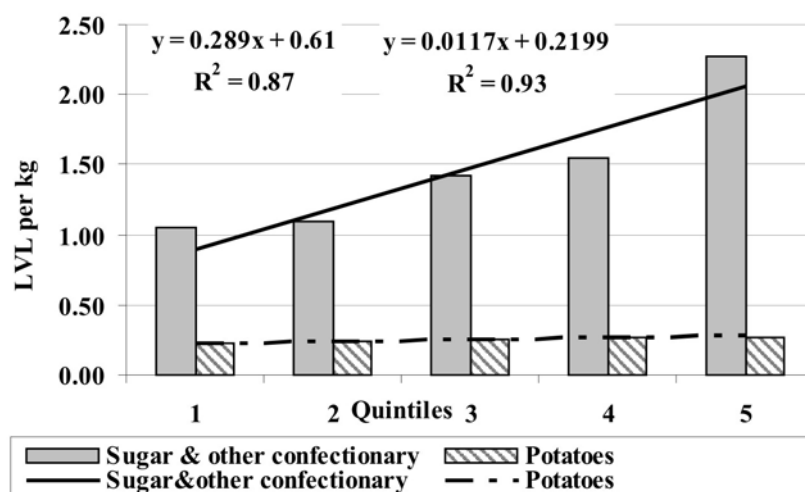
Source: author's calculations according to the unpublished data of the Central Statistical Bureau

Figure 5. The relationship of prices (LVL/ kg or l) of consumed meat, meat products and milk and milk products by quintiles of Latvian households, 2007



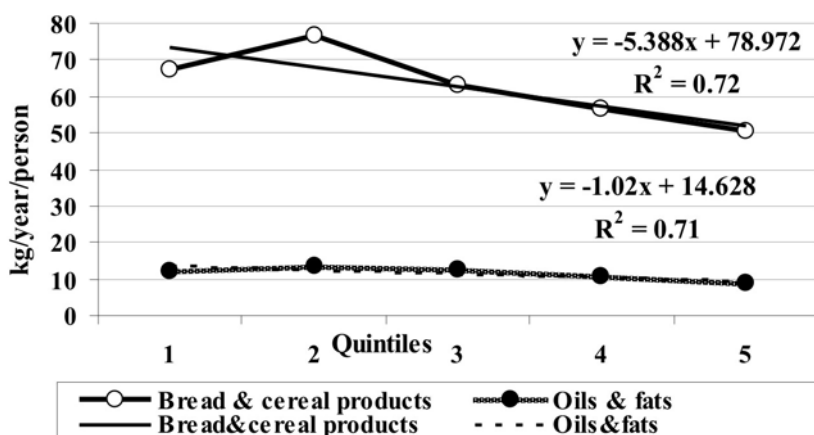
Source: author's calculations according to the unpublished data of the Central Statistical Bureau

Figure 6. The relationship of prices (LVL/ kg or l) of consumed fruits, berries and vegetables by quintiles of Latvian households, 2007



Source: author's calculations according to the unpublished data of the Central Statistical Bureau

Figure 7. The relationship of prices (LVL/ kg or l) of consumed sugar and confectionaries and potatoes by quintiles of Latvian households, 2007



Source: author's calculations according to the unpublished data of the Central Statistical Bureau

Figure 8. **The relationship of quantity (kg or l/per person) of consumed bread and cereal products and oils and fats by quintile of Latvian households, 2007**

1) the differences between income groups or quintiles; and 2) the differences between: Latvia and the old EU and other Western countries; and Latvia and other new EU member states.

Comparison of quantities of consumed staple food products by quintiles of Latvian households were performed by the correlation and regression analysis. Due to the limited space, only one figure (Figure 8) - the relationship of quantity (kg or l/per person) of consumed bread and cereal products and oils and fats by quintiles of Latvian households - is presented below as example, but the results of comparison of other food groups are summarised and presented in Table 2.

Analysing the results, we find that the characteristics and trends of relationship of consumed food product's quantity by household's quintiles group are as follows:

- significant decrease in quantities of potatoes' consumption ($r = -0.92$, $\alpha = 0.05$) by income level or quintile group;
- however, the consumption of bread and cereal products ($r = -0.85$); oils and fats ($r = -0.84$), and sugar and confectionary ($r = -0.73$) show a noticeable decrease by higher level of income, these trends are not statistically significant;
- significant increase of consumed meat and meat products, and fruits and berries by increasing income level or quintile, where $r = 0.95$, $\alpha = 0.01$ and $r = 0.99$, $\alpha = 0.01$, respectively;
- increasing trends, but not significant, of consumed milk and milk products, and vegetables in the households with higher income, where $r = 0.83$ and $r = 0.37$ respectively.

The consumption of meat and fish characterises the well-being of countries. According to R. York and M.H. Gossard (2004) the consumption of meat and fish (kg/capita) in Latvia is one of the lowest in all 57 Western Nations (Table 3), less consumption of meat is observed in the Moldova Republic, Croatia, Trinidad and Tobago, Ukraine, El Salvador and similar countries. However, fish consumption in

compliance with the authors' calculations is low in Latvia, but similar situation can be observed in some well developed countries, for instance, Austria, and the new EU member states, for instance, the Czech Republic, Slovenia, Slovakia, etc.

American researchers A. Regmi et al. (2001) describe how fluctuating incomes and prices affect changes in the food expenditure for a cross-section of countries ranging from low to middle and to high income, and conclude that Latvia is in the group of middle income countries on the whole world level. At the same time, comparing income elasticity for food, beverages and tobacco consumption for all EU countries, Latvia is in the last place with the income elasticity of 0.62, where the best results are shown by Luxemburg - 0.13 and Denmark 0.25. American authors consider that, in general, lower income countries spend a greater proportion of their budget on necessities such as food, while richer countries spend a greater proportion on luxuries. It means that not only Latvian households have spent great share of their expenditure for food, but it is especially true for the households with the lowest income level. Moreover, the diet or food consumption patterns of the main food products are essentially different for households with various income levels.

Conclusions

In recent years, particularly after Latvia joined the EU, the share of food consumption expenditure was 25.6% in 2008 and had significantly declined by 10% since 2002. Although, the share of per capita expenditures for food of Latvia's households' has decreased, it still remains high. Moreover, the difference or inequalities between the poorest and richest households still have not changed much.

The results of comparing the relationship of prices of all staple food products' groups by household's income level show that that higher income groups (quintiles) have consumed more expensive products than lower income groups, which have chosen the cheapest and less qualitative food. These differences

Table 2

The relationship and its significance of consumed staple food product's quantity (kg or l/per person) by quintiles of Latvian households, 2007

Product	R ²	r	Significance level
Bread and cereal products	0.72	-0.85	not significant
Oils and fats	0.71	-0.84	not significant
Meat and meat products	0.91	0.95	$\alpha = 0.01$
Milk and dairy products	0.69	0.83	not significant
Fruits and berries	0.99	0.99	$\alpha = 0.01$
Vegetables	0.14	0.37	not significant
Sugar and other confectionary	0.54	-0.73	not significant
Potatoes	0.85	-0.92	$\alpha = 0.05$

Source: author's calculations

Table 3

Per capita annual consumption of meat and fish (kg) in the Baltic states, 2004

Country	Meat, kg/capita	Fish, kg/capita
Estonia	59	19
Latvia	37	11
Lithuania	48	15

Source: adapted from York and Gossard, 2004

between price and quintile or income level are significant for all staple products or product groups.

Comparing the quantities of consumed staple food products by quintiles of Latvian households (relationship between food products consumption and income level), the following consequences are found: notwithstanding, the trends of consumption such products as bread, cereal products; oils and fats; sugars, confectionary, and potatoes, show decreasing quantities by income level or quintile group, statistically these trends are not significant; conversely, the increase of consumption of meat and meat products, and fruits and berries by increasing income level are statistically significant; however the trends of increasing consumption of milk and milk products, and vegetables in the households with higher income level are observed, but they also are not significant.

Latvia is put in the group of middle income countries on the global level; however at the same time, comparing income flexibility for food, beverages and tobacco consumption for all EU countries, Latvia's income elasticity of 0.62 ranks the last.

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Ecological Footprint: Sustainable Development Indicator of Consumption and Production

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Abstract. Current sustainable development and sustainable consumption and production (SCP) indicators do not cover all the aspects of SCP. There is an obvious and significant gap in the SCP indicator research which is already recognised by the EU Commission and other institutions. This paper argues for ecological footprint (EF), which is becoming a popular indicator of sustainable development, to become widely adopted as a key indicator of sustainable consumption and production. It is suggested that EF, as an aggregate indicator, provides a unique, global perspective on sustainability that is absent with the use of traditional sustainable development and SCP indicators. The EF is also screened through the prism of strong SCP principles and policy objectives. The debate, advances and implications of EF are investigated and compared with the specific SCP aspects provided. The paper outlines areas for further research in applying EF to SCP.

Key words: consumption and production patterns, ecological footprint, indicators, strong sustainable consumption and production, sustainable development.

Introduction

Sustainable consumption and production (SCP) has become an important aspect in the sustainable development political and academic discourse, and is integral part of sustainable development altogether. SCP has been on the international agenda since *Agenda 21* (UN, 1992). The current unsustainable consumption and production patterns in the developed countries are responsible for many environmental problems, like climate change, eutrophication, biodiversity loss, resource depletion and others, and recognised as one of the major cause of the continued deterioration of the global environment. The World Summit on Sustainable Development (WSSD), Johannesburg (2002) stresses that without changes in these unsustainable patterns of consumption and production sustainable development is impossible. The Johannesburg Plan of Implementation, adopted at the WSSD called upon the international community to "encourage and promote the development of a ten-year framework of programmes (10 YFP) on sustainable consumption and production in support of regional and national initiatives to accelerate the shift towards SCP (UN, 2002).

Following these guidelines from WSSD many initiatives have started both in developed and developing countries. An International Expert Meeting on SCP coordinated by UNEP and UNDESA met in Marrakech, Morocco in 2003 to begin to facilitate the so-called Marrakesh process of developing the 10 YFP. The SCP has become one of focus points of the European Union (EU) environmental and sustainable development policies. One of the aims of the 6th Environment Action Programme of the European Community (6th EAP) (EC, 2002) is "better resource efficiency and resource and waste management to bring about more sustainable production and consumption patterns, thereby decoupling the use of resources and the generation of waste from the rate of economic growth and aiming to ensure that

the consumption of renewable and non-renewable resources does not exceed the carrying capacity of the environment". SCP is part of the EU renewed Sustainable Development Strategy (EU SDS) (EC, 2006) which identifies SCP as one of 7 key challenges and aims to "prevent and reduce environmental pollution and promote sustainable consumption and production to break the link between economic growth and environmental degradation". The EU SDS sets the following SCP objectives and targets:

- promoting SCP by addressing social and economic development within the carrying capacity of ecosystems and decoupling economic growth from environmental degradation;
- improving the environmental and social performance for products and processes, and encouraging their uptake by business and consumers;
- aiming to achieve by 2010 an EU average level of Green Public Procurement equal to that currently achieved by the best performing Member States;
- increase the EU global market share in the field of environmental technologies and eco-innovations;
- improvements in resource efficiency - "improve management and avoid overexploitation of natural resources, recognising the value of ecosystem services".

To implement the SCP in practice, the EU has developed its SCP Action Plan and Sustainable Industrial Policy Action Plan (COM (2008)397/3, EC, 2008). The EU SCP Action plan aims for smarter consumption (changing behaviour) and better products (improved environmental performance of products), cleaner production (increasing efficiency) and works towards global markets for sustainable products. It is planned to reach these aims by improving eco-design of products and promoting eco-labelling, green public procurement, work

with retailers and consumers, boosting resource efficiency, supporting eco-innovation, enhancing the environmental potential of industry, promoting good practice internationally and international trade in environmentally friendly goods and services etc.

There are also many initiatives on the national level. All of them could be grouped in two categories: development of national SCP action plans (United Kingdom, Czech Republic, Sweden etc.) and integrated approach, where SCP policies and instruments are integrated in the other sectoral plans and strategies. However in the latter case strategic approach is usually missing. In Latvia there are no specific SCP aims defined. However Environmental policy guidelines for 2009-2015 (VidM, 2009) partly reflect the EU SCP aims and refer to green public procurement, energy-efficiency¹, promotion of new technologies, cleaner production and resource efficiency, minimisation of per capita water consumption and promotion of sustainable consumption patterns in the climate change context.

The present paper will analyse the concept of strong SCP, its principles and objectives, main SCP pressure areas, defined requirements for SCP indicator and argued for ecological footprint (EF) as a key indicator of SCP.

Measuring progress towards SCP

There are two main approaches to SCP. First one is more concerned with the supply side or production patterns. In this case the debate is about the degree to which aspects of sustainability are considered in the different stages of the life cycle of products and services, and focuses on increasing eco-efficiency of the main economic sectors on production of more environmentally friendly (better resource and energy efficiency and less pollution) and less socially destructive (e.g. fair trade) products and services. This is called a Weak SCP approach (Fuchs & Lorek, 2005).

However many studies show that is not possible to ensure SCP dealing only with the eco-efficiency (Rubik et al, 2009; Greening et al, 2000; Fuchs & Lorek, 2005) as there is increased evidence of rebound effects (Mazijn et al., 2004; Herring, 1998; Hertwich, 2005; Holm & Englund, 2009) in which improvements in efficiency actually become a stimulus for increased consumption, and environmental gains are offset by trends on the demand side: population growth, an increasing standards of living and individual desires to consume products and services. Therefore the second approach, called strong SCP, which focuses on reduction of consumption level (demand side) is needed (Fuchs & Lorek, 2005).

To measure the progress of SCP policies and their implementation and efficient policy communication it is important to have appropriate SCP indicators. Generally there are two types of SCP indicator sets: (a) embedded SCP indicators, which are part of a larger set of sustainable development indicators and (b) stand-alone SCP indicator sets (Watson et al., 2009). These SCP indicator sets are developed by

OECD, UN, EU and national governments (OECD, 1999; UN DESA, 1998; Bentley & de Leeuw, 2000; Watson et. al, 2009). There are also several SCP indicators integrated in the set of Latvia's sustainable development indicators (LVGMA, 2006) and National environmental protection indicators (MK, 2009). As part of the EU indicator set on sustainable development, Eurostat (EC, 2007) has developed a set of 18 SCP indicators covering resource use and waste, consumption and production patterns.

However despite many policy initiatives it is recognised that there is a lack of suitable SCP indicators which is contributing to the current lack of quantitative policy targets and goals for resource efficiency improvements or reductions of resource use (Adelle & Pallemmaerts, 2009). The existing SCP indicators primarily reflect a weak or supply-oriented approach (Watson et. al, 2009) and are not covering many important aspects of strong SCP. Key aspects such as the absolute resource use and not just resource efficiency, carrying capacity of ecosystems, the market share and uptake of environmental technologies, products and services, environmental performance of products and services, social impacts on jobs, health, distribution of wealth, participation in decision making and in products and services embodied social and environmental impacts on other countries (burden shifting) are not reflected by the existing indicators (Watson et.al, 2009; Dresner & Chassais, 2008, Mazijn et al., 2004).

There appears to be a continuing need for aggregate indicators that characterise progress towards SCP. It explains the raising popularity of the ecological footprint, carbon footprint and material flow analyses. Other more prominent indicators that had been developed and applied on various scales include the Genuine Progress Indicator (Redefining Progress), the Adjusted Net Saving (World Bank) Happy planet index and others. Development of these aggregated indicators is also linked to the raising criticism of Gross Domestic Product as development indicator and degrowth discussion (Jackson, 2009; Spangenberg, 2009).

The European Commission proposes to apply a basket of existing aggregated indicators to measure SCP. In 2007, DG Environment funded a first project, which evaluated different indicators of resource use regarding their suitability to illustrate the related negative environmental impacts. The research team suggested a basket of four indicators, which should be further improved and integrated: Ecological Footprint and Environmentally-weighted Material Consumption reflecting the different impacts of materials and products as well as Human Appropriation of Net Primary Consumption, and Land and Ecosystem Accounts reflecting the spatial impacts on land use, ecosystems and biodiversity (Dresner & Chassais, 2008). But also these proposed indicators do not reflect all aspects of SCP. Such significant principles as sufficiency, equal distribution of wealth and social aspects of consumption and production patterns are not covered. It has also to be noted, there have

¹ Also defined in the *First Energy Efficiency Action Plan 2008-2010* (approved by the Cabinet on 2008/05/20, No. 266) and in *Law on Building Energy Efficiency* (approved by the Parliament on 13.03.2008.).

been many studies carried out recently in the EU analysing sustainable development indicators (INDI-LINK; DECOIN; FORESCENE; TISSUE; STATUS, SENSOR, MEI, ACETECH and ECODRIVE). However no research project under FP6 or FP7 focused on SCP. Only certain aspects of SCP are covered in these research projects: green public procurement; construction and demolition waste; municipal waste; environmental management practices; water consumption; eco-innovation, and eco-efficiency (Adelle, C., Pallemarts, M., 2009). There is also an ongoing development of social impact assessment, and social life-cycle impact assessment guidelines are developed by the UNEP (UNEP, 2009).

Methodological approach: requirements for SCP indicators

In the chapter above, the author has looked at the previous research done in the field of SCP and SCP indicators. Now the author will discuss the requirements for appropriate strong SCP indicator.

A fundamental pre-requisite to the identification of SCP indicators is an in-depth understanding of SCP. In this study the strong SCP approach is used which is aiming at satisfaction of basic needs, ensuring social and economic security for all, including future generations, within the borders of Earth's ecological carrying capacity, therefore covering not only environmental, but also social and economic aspects and their inter-linkages.

Good indicators need to be tailored to the specific needs of the end user. In this case focus is put on two needs: information for decision making (provides feedback) and SCP communication. If decision-makers and stakeholders wish to achieve SCP then they need to have information with which they can measure the current state of play as well as progress towards SCP. Therefore for SCP indicators to be useful they have to be in a form that can easily be assimilated. It is also very important to have indicators which could be effectively used to communicate the main SCP problem areas and show the necessary steps to minimise SCP related social and environmental pressures. At the same time indicators should be in line with Bellagio principles (IISD, 1997).

As the concept of strong SCP moves from production to the consumption, so should the indicators. To ensure strong SCP policy several fundamental principles should be followed:

- **sufficiency** – instead of focussing only on the efficiency, sufficiency approach should be used, as less materialistic consumption could bring about more satisfaction and human well-being especially in industrialised countries;
- **absolute decoupling** – instead of relative decoupling, policies should focus on absolute decoupling of resource consumption and pollution from the economic growth;
- **life cycle approach** – all the social and environmental pressures from the life-cycle of products and services should be considered;
- **relevance** – main focus should be paid to the products and consumption clusters with highest environmental and social pressures;

- **polluters pay** – all the social and environmental costs should be integrated in the costs of products and services, so that unsustainable production and consumption patterns are eliminated;
- **limiting unsustainable consumption and production** – policies should be directed towards eliminating unsustainable consumption and production patterns and not only supporting SCP;
- **including non-market activities** – also non-market activities of individuals should be considered and integrated in the SCP policy framework;
- **social innovation** – not only technological solutions, but also social innovations should be considered;
- **supply side management** – policies should be targeted to behaviour change by modifying choice situations through the supply-side management - via changes in entire provisioning systems, in physical infrastructures and technology, as well as in pricing;
- **basic needs** – policies should be aimed at reallocation of resources towards basic needs rather than leave it for the market.

Taking into account the strong SCP approach and principles, the main SCP pressure areas and policy objectives the core-set of indicators for measuring changes in consumption and production patterns should:

- 1) reflect all 3 sustainable development pillars: economic, environmental, and social;
- 2) include all key consumption clusters (food, housing, and mobility) that are susceptible to policy intervention and relate to critical environmental trends;
- 3) reflect main drivers (unsustainable infrastructure, increase in income etc.) and pressures of unsustainable consumption and production patterns throughout all life-cycle of products and services;
- 4) highlight key principles of strong SCP and international or national policy goals relevant to SCP;
- 5) communicate steps needed to minimise pressures and to raise public awareness of particular actions which they need to take in order to achieve strong SCP (supports a key message for individual action).

Key consumption clusters – food, housing and mobility – are identified by results of most of the latest studies on household's environmental pressure in Europe (Noorman, Biesiot et al. 1999; Vittersø, Strandbakken et al. 1999; Gatersleben, Steg et al. 2002; Tukker, Huppes et al. 2005; Lähteenoja, Lettenmeier et al. 2007; Nissinen, Grönroos et al. 2007) which conclude that effective environmental sustainability efforts should focus on 3 main product groups: food and beverages, housing (including electricity, and fuel) and personal transport, offering frameworks to support the needed change (main actions to minimise these pressures are outlined in Table 1). Also studies in Latvia (Brizga, 2008; Brizga & Kudregickis, 2009) suggest similar trends.

Table 1

List of SCP recommendations according to the main consumption clusters

Food and beverages	Housing	Transportation
Reduce consumption of meat and dairy products	Facilitate housing insulation – energy efficiency	Model shift: from car to public transport
Support local and seasonal food	Encourage use of energy efficient electric appliances	Support walking and cycling
Promote organic and fair trade products	Use environmentally friendly construction materials	Limit aviation

Taking into account all considerations discussed above it may be proposed the application of ecological footprint (EF) as strong SCP indicator. The last chapter investigates the debate, advances and implications of the EF. Results from recent studies (Best et al., 2008; Giljum et al., 2007; Risk & Policy Analysts Ltd., 2007) done on analysing EF as sustainable development indicator and comparing it with other sustainable development and SCP indicators to present differences and overlaps have been analysed and integrated in this report.

Ecological footprint

Ecological footprint (EF) is an aggregated indicator, which integrates a large amount of environmental categories: consumption of renewable resources, energy and land as well as greenhouse gas emissions (Giljum et al., 2007). It is designed as a balance between demand (ecological footprint - human consumption of biological resources) and bio-productivity – supply of these resources.

EF shows the main environmental pressure areas and is designed to be a consumption indicator, but not an “impact indicator” (Best et al, 2008). However approach for EF aims to provide an ‘early warning’ indicator rather than a ‘current state’ indicator. EF is focusing on the present relationship between consumption and production, which can be compared with the previous EF to show overall trends. Thus, the EF is not predictive, but it will show loss of bio-capacity (e.g. that result from environmental degradation) in future accounts.

Ecological footprint calculations can be done using several different methodologies, but all of them are based on the compound method (Rees & Wackernagel, 1992; Wackernagel & Rees, 1996) which is primarily used to calculate national ecological footprints. However ecological footprint methods have been applied also to regional and local government areas, industry sectors and businesses, households and individuals. Input-output analysis is widely used for ecological footprint calculations on the sub-national level. However Latvia does not have actual input-output tables. Thus in Latvia mixed “compound + component” (component method, Simmons et al, 2000) approach can be used to do national and sub-national calculations (Brizga, 2008; Brizga & Kudreņickis, 2009).

Ecological footprint is mainly suited to measure resource consumption and aggregate land use and it reflects main environmental pressures from

unsustainable consumption and production. However the EF is not intended to be an indicator of social, economic and political aspects of sustainability. The socio-economic dimension needs to track outcome measures of human well-being (which the Footprint also does not cover) and economic production capacity (for which the Footprint only measures the input and availability of living natural capital) (GFN, 2009b).

The EF calculation methodology is covering main consumption and production clusters and international trade in products from croplands, grazing lands, forests (timber) and fishing grounds, and fossil energy consumption. However there is a methodology (input-output analysis) available to recalculate EF by household expenditure groups. In this way it is possible to collect very detailed EF distribution between different consumption clusters, covering food, housing and transportation. Footprint calculations also exist on the level of single products and services.

Inevitably, assumptions have been made in order to calculate Ecological Footprint. For example, CO₂ emissions are calculated as the amount of forest area required to sequester the same amount of carbon – clearly not a measure that represents the impact of carbon emissions. Independent reviews of the ecological footprint in Switzerland, Finland, Ireland, and Germany have highlighted data and methodology issues which have varied the national footprint from -12% to +28% (Risk & Policy Analysts Ltd., 2007). The current EF methodology would also not reflect several important elements (EEA, 2006, Giljum et al., 2007, Risk & Policy Analysts Ltd., 2007; Best et al, 2008; GFN, 2009a). One of which is non-productive ecosystems (i.e. deserts and icecaps) because they do not have anthropocentrically defined bio-capacity, and coastal estuaries and wetlands - due to the lack of data. However most important areas not covered by ecological footprint in the field of SCP are:

- toxic substances (e.g. PCBs, dioxins, etc.) – since their impact is not directly tied to a quantifiable land area and, in addition, would render the calculation meaningless if the time needed to assimilate these chemicals were incorporated on the human timescale;
- depletion of non-renewable resources, such as metal, mineral, or fossil fuel reserve;
- greenhouse gases other than carbon dioxide (may be included in future editions, or added as non-conventional elements);

- economic aspects of sustainability, but assumes that human economic activity is responsible for exceeding the world's bio-capacity;
- social aspects of sustainability such as, equal opportunities, working conditions, human rights, consumers protection, life and longevity; health; autonomy; safety, security and tranquillity; participation and influence; cultural heritage and human productivity.

Ecological footprint also does not reflect any actions taken by the country to reduce embodied impacts, impacts on consumption of non-renewable and abiotic renewable resources, ecosystems and biological diversity, specific land-use patterns, stratospheric ozone depletion, eco-toxicity, photo-oxidant formation, acidification, eutrophication, and ionising radiation (Best et al, 2008). The ecological footprint would not address this shortcoming of the set of indicators and may be inconsistent with any alternative indicator adopted to more accurately assess the impact of imported goods and services (Risk & Policy Analysts Ltd., 2007).

The EF is reflecting some of the main strong SCP principles. It clearly demonstrates the necessity for sufficiency approach, as the current unsustainable consumption patterns are over-consuming Earth's carrying capacity and efficiency alone cannot deliver the necessary change. The EF methodology is also using life cycle approach of products and services, and clearly identifies the main consumption clusters to be dealt with to minimise adverse environmental pressures. Recommendations from EF calculations usually include both supply and demand side oriented suggestions and steps needed to limit current unsustainable consumption and production patterns. At the same time EF also raises discussion on resource distribution, especially among the North and the South. However, the EF calculations do not reflect or give any recommendation regarding social innovation or non-market activities.

Results from the EF calculations are used to communicate the impacts of consumption, identify key areas of environmental pressures and, in some cases, to set targets for reducing these pressures. The ease of communicating the ecological footprint has facilitated its use with policy-makers as well as the general public. Stakeholders have identified the role of ecological footprinting in promoting the issue of sustainable consumption, highlighting the role of food in consumption impacts and creating greater joined-up thinking in policy-making (Risk & Policy Analysts Ltd., 2007). This demonstrates that EF could be an effective indicator for assessing and communicating progress toward the SCP policy objectives. The communication benefits of the ecological footprint, and its use for this purpose should not be discouraged. Nevertheless there has been limited adoption of the ecological footprint on the national and international levels.

Conclusions

There are many different approaches to SCP indicators, starting from individual to the sets of SCP indicators and aggregated indicators. However non

of the current indicators cover all of the different SCP aspects and many of them are primary focussing on environment, covering resource efficiency, environmental pressures from the main economic sectors and number of green products on the market. So most of the indicators are relevant for the weak SCP approach, but they are not adequate for assessing progress on strong SCP agenda.

The lack of accounting for the effects of consumption on other countries through imported goods and lack of integration of social aspects (positive and negative) of SCP is a shortcoming of SCP indicators. Ecological footprint successfully overcomes the first problem integrating environmental pressures from overseas embedded environmental (predominantly climate) pressures. However, the EF is not an appropriate measure for a number of important SCP elements. These include resource distribution and management (particularly non-renewable resources), specific environmental impacts of resource use as well as key aspects of other sustainability dimensions such as social equity, health and quality of life.

EF is a useful tool for SCP communication and teaching purposes, and to illustrate overall resource consumption. Since the calculation method is standardised on the global level, Ecological Footprint is useful for international comparisons between countries. By measuring "overshoot" and countries' ecological deficit as well as comparing human demand against local and global Earth's carrying capacity' the EF is a good indicator for assessing decoupling of the economic growth from demands on biosphere.

The improved integration of EF data (together with other indicators) into integrated environmental-economic models would facilitate the future use of the Ecological Footprint to analyse major sustainability issues. For example, estimating the implications of improved eco-efficiency and transformations in the energy supply mix or changes in the demand of certain traded products are caused by different lifestyles.

Nevertheless the EF should be used alongside with other environmental, economic and social indicators to provide clear messages for policy makers and society. Interplay between social indicators and ecological footprint is starting to emerge as an issue in some of the areas. The EF can be plotted over time against the UN Human Development Index (HDI), GDP, and other indicators to create a more complete assessment of our overall progress towards sustainability (EEA, 2006). Data regarding the percentage of bio-capacity consumed by certain populations can be used to provide information on social equity issues related to resource consumption. The author also proposes to use the EF in combination with environmentally-weighted indicator on material consumption indicator which covers flows of resources not reflected in the EF and human toxicity, which other aggregated resource use indicators (such as DMC or the Ecological Footprint) are lacking.

There is a need for more research to develop SCP indicators covering social aspects. It has to be taken into account that unsustainable consumption and production patterns may have strongly negative

social impacts, through infringement on the workers' rights, employment of child labour, distortion of local communities, use of bribery to create corruption, etc (Hauschild et al., 2008). So also these impacts should be considered in developing SCP policy framework in relation to such concepts as sufficiency, non-market activities, social innovation, and equal resource distribution.

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Ilgospējīgu mājokļu būvniecības iespējas Latvijā Perspectives for Building Sustainable Apartments in Latvia

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Abstract. The research dwells upon building of houses in Latvia, new building technologies, sustainable materials, and energy. Today there are approximately 5000 new apartments in Riga available for sales. The existence of such situation in real estate market was due to several factors. In the period of rapid development of construction industry in the period of 2000-2009 a low-quality mass-consumer products were offered at inflated prices. All those products got end-users when credits were available to the public. At that time a seller controlled the situation, and there were several candidates for one apartment, so nobody thought much about the quality, functionality, convenience, environmental friendliness, economy, and sustainability of housing built in Latvia. The crisis has made some corrections, which have benefited the market. There has been a catharsis: speculators left the market, suffering heavy losses, amateurs became bankrupt. Presently it is the time to build new housing, where the functionality, convenience, environmental friendliness, and operational costs are the most important factors. All these factors will affect the costs of housing, hence increasing the costs by 10-15% compared with conventional projects which are developed without the application of "green" technology and innovation. Sixty-five per cent of energy resources in Latvia are imported and only 35% of energy is generated in Latvia. Forty percent of energy balance of the country falls on housing, thus being a very high mark. Housing in Latvia consumes too much energy, and thus the goal of developers is to do the utmost to reduce the energy consumption by using more energy of the sun and wind.

Ievads

Introduction

Mājoklis ir primārais cilvēka dzīves darbībai un eksistencei nepieciešamās vides nodrošinājums un reizē arī viens no tautas labklājības līmeņa rādītājiem. Tā kā mājokļu kvalitāti kopumā nosaka vispārējais dzīves līmenis valstī, tad valsts dalība mājokļu attīstībā no makroekonomiskā viedokļa ir jāvērtē kā būtisks ieguldījums tautas attīstībā. Tirgus ekonomikas apstākļos mājoklis atbilst mājokļa īpašnieka materiālajam stāvoklim un izpratnei par patēriņa prioritātēm – cik augstu patēriņa prioritāšu skalās atrodas mājoklis un cik daudz līdzekļu persona ir gatava par to izdot. Šobrīd aktuāli, lai mājoklis būtu ērts, ekonomisks un viegli uzturams, kā arī būtu arhitektoniski izteismīgs un iekļautos apkārtējā vidē. Uz 2008. gadu Latvijā nodotas ekspluatācijā un apdzīvotas vairāk, nekā 39,3 tūkstoši daudzdzīvokļu dzīvojamās mājās, jeb pāri par 60,1 milj.m². Latvijas pilsētās dzīvo 69% no visiem valsts iedzīvotājiem un daudzi no viņiem dzīvo nepiemērotos apstākļos, radot nepārtrauktu mājokļu deficītu. Sevišķi šis deficīts izjūtams Rīgā, kur izvietota 1/3 no visiem Latvijas iedzīvotājiem. Ievērojams nolietojums un neapmierinošā kvalitāte ir mājokļu fonda lielākā problēma. Aptuveni trešā daļa ēku ir būvētas pirms Otrā Pasaules kara. Rūpnieciski būvēto daudzdzīvokļu dzīvojamo māju norobežojošo konstrukciju siltumizolācijas spēja ir zema, siltuma patēriņš – pārmērīgs, tādēļ mājokļu ekspluatācija ir ne tikai neekonomiska, bet arī videi nedraudzīga. Mājokļu labiekārtības pakāpe

valstī ir nelīdzsvarota, ja lielpilsētās tā ir laba, tad mazpilsētās un laukos mājokļu labiekārtojums ir krietni zemākā līmenī, un kopumā tas nesasniedz Eiropas attīstīto valstu līmeni. Mājokļa vidējā platība uz vienu iedzīvotāju Latvijā ir apmēram par 2-3 reizēm mazāka nekā Eiropas Savienības valstīs, kur dzīvojamo fondu pārsvarā veido 3-5 istabu mājokļi, bet Latvijā tikai 1-2 istabu mājokļi. Salīdzinot ar Eiropas Savienības valstīm, Latvijā mājokļa kvalitāte ir zemāka, dzīvojamās ēkas ir salīdzinoši vecas un nekvalitatīvas, it īpaši no siltuma patēriņa viedokļa. (Latvijas ilgtspējīgas attīstības pamatnostādnes, 2003)

Ilgospējīgs mājoklis ir viens no nozīmīgākajiem energoresursu patēriņa samazināšanas veidiem, kas sekmē zemes resursu saglabāšanu un to pastāvīgu atjaunošanos. Pēc Rīgas pilsētas energoapgādes ekspertu konsultatīvās padomes un Latvijas Republikas Vides ministrijas 2007. gadā sniegtās informācijas Rīgas dzīvojamais fonds gadā vidēji patērē 231 kWh/m² siltumenerģijas. Pārējā Latvijas teritorijā īpatnējais gada siltumenerģijas patēriņš mājokļos svārstās robežās no 220-250 kWh/m². (Energētikas attīstības pamatnostādnes, 2007)

Laika posmā līdz 2016. gadam jāsamazina vidējais īpatnējais gada siltumenerģijas patēriņš ēkās no 220-250 kWh/m² uz 195 kWh/m². Energoefektivitātes paaugstināšanas pasākumu īstenošana ēkās būs jāturpina arī pēc šo pamatnostādņu perioda un līdz 2020.gadam jāsamazina vidējais īpatnējais siltumenerģijas patēriņš 150 kWh/m² gadā. Visa energoefektivitātes potenciāla apgūšanai dzīvojamajā sektorā

nepieciešamās investīcijas ir novērtētas 1100 miljonu Ls apmērā, bet laika posmā līdz 2016. gadam – 439 miljonu Ls apmērā. (Enerģētiskas attīstības pamatnostādnes, 2007)

Jaunajās dzīvojamās mājās gada siltumenerģijas patēriņš tuvojās 150 kWh/m², bet tas nav apmierinošs rādītājs. („Labo Namu Aģentūra” SIA dati, 2009)

Energoresursu tarifi nemitīgi pieaug un fosilā kurināmā resursi izsīkst, ilgtspējīgi būvēts mājojļis ir nākotnes problēmu pārdomāts risinājums. Mājokļos, kas tiek būvēti atbilstoši ilgtspējīgas būves principiem, iespējamais kaitējums cilvēkam un apkārtējai videi tiek samazināts līdz minimumam. Ilgtspējīgām būvēm ir raksturīgs stipri mazāks CO₂ izmešu daudzums, tādējādi tās uzlabo gaisa kvalitāti un mazina globālās sasilšanas draudus. (Ilgtspējība. www.zalasmajas.lv, 2006)

Izvēle par labu ilgtspējīgiem mājojļiem būvniecībai ir izvēle par labu veselīgākai un atjaunoties spējīgai videi, tās saudzīgākai izmantošanai. Tā ir reāla iespēja māju īpašniekiem dot savu ieguldījumu vides aizsardzībā un zemes resursu saglabāšanā, to efektīvākā izmantošanā.

Ņemot vērā augstāk minēto tēmas aktualitāti saistībā ar vides ilgtspējīgas attīstības saglabāšanu, darba tiek noteikta šāda hipotēze: **paplašināta ilgtspējīga mājojļu būvniecība var dot nozīmīgu ieguldījumu ne tikai vides aizsardzības jomā, bet arī paaugstināt enerģētisko resursu izmantošanas efektivitāti un samazināt apsaimniekošanas izmaksas.**

Pētījumam tiek noteikti šādi mērķi un uzdevumi:

1. identificēt ilgtspējīga mājojļa priekšrocības salīdzinājumā ar konvencionālo mājojli;
2. analizēt Latvijas un ES normatīvo aktu atbilstību ilgtspējīgu mājojļu sekmīgai attīstībai;
3. pierādīt iespējas paaugstināt energoresursu izlietošanas efektivitāti un apsaimniekošanas izmaksu samazināšanu ilgtspējīgos mājojļos.

Darbā izstrādē tiek pielietotas dažādas ekonomiskajos pētījumos pielietotās metodes, bet, galvenokārt, indukcijas un dedukcijas metodes, analīzes un sintēzes metodes, loģiskās pieejas metode un statistiskās metodes.

Ilgtspējīga mājojļa jēdziena skaidrojums un tā ekonomiskais saturs

Concept of sustainable apartment and its economic content

Zaļā jeb ilgtspējīgā būvniecība – būvniecība, kas balstīta uz maksimāli dabu saudzējošu dzīves vides radīšanu. Tā spēj apmierināt visas prasības, bet vienlaicīgi arī respektējot nākamo paaudžu vajadzības. Ilgtspējīgā būvniecība ir veids, kā, izmantojot mūsdienu tehnoloģiskos risinājumus un celtniecības materiālus, attīstīt ilgtermiņā efektīvas būves. Tas ir veids, kā dzīvot dabiskāk, neatsakoties no mūsdienās ierastajām ērtībām un kvalitātes standartiem. Efektīvāk patērēta enerģija, gudrāk izlietoti resursi, zemāki ēku uzturēšanas izdevumi – tā ir pārdomāta šodienas izvēle drošai un labākai rītdienai. Taču tas nenozīmē, ka zaļā būvniecība rada

ekoloģiskas vai pasīvas ēkas. Lai sekmētu ilgtspējīgas attīstības principu ieviešanu ikdienas dzīvē un uzrunātu pēc iespējas vairāk pasaules iedzīvotāju, radīta kustība „One planet living”. Tās desmit pamatprincipi radot ēkas: neizmantojot oglekli, neradīt atkritumus, izmantojot nenoplicinošu transportu, izmantojot vietējos, nenoplicinošos materiālus, izmantojot vietējo, nenoplicinošo pārtiku, izmantojot nenoplicinošu ūdenssaimniecību, radīt dabisku vidi un ekosistēmas, radīt kultūras mantojumu, radīt vienlīdzīgu un godīgu tirdzniecību, nodrošinot laimi un veselību) ietver galvenās vadlīnijas ilgtspējīgas attīstības nodrošināšanai.

Šie principi ir tieši attiecināmi arī uz mājojļu būvniecību un apsaimniekošanu. (Jaunumi. www.building.lv, 2007)

Ilgtspējīgs mājojļis tiek cieši saistīts ar ilgtspējīgas attīstības koncepciju, kas sabiedriskajā aprītē un zinātniskās izpētes uzmanības lokā nonāca pagājušā gadsimta beigās. (Frej, Anne B., 2005, p.147)

ANO iesniegtajā Brundtlandes ziņojumā ilgtspējīga attīstība tiek definēta šādā redakcijā: **ilgtspējīga attīstība - attīstības veids, kura ietvaros patreizējās indivīda un sabiedrības vajadzības tiek apmierinātas, nepasliktinot nākamo paaudžu indivīdu un sabiedrības iespējas apmierināt viņu vajadzības** (autora tulkojums).

Kā redzams, Brundtlandes ziņojumā minētais ilgtspējīgas attīstības jēdziens nosaka nepieciešamību sabiedrībai noteikt un īstenot tādus ekonomiskās attīstības un labklājības līmeņa paaugstināšanas mērķus, kuru īstenošana nenotiek uz nākamo paaudžu rēķina. Ilgtspējīgas attīstības jēdzienā vajadzību apmierināšanas ierobežošana saimnieciskās darbības rezultātā saistās ar tādu blakus efektu novēršanu, kuri pasliktina apkārtējās vides stāvokli ne tikai vienā valstī, bet visā pasaulē. Tāpēc ilgtspējīgas attīstības nosacījums dažādās valstīs un kontinentos tiek saistīts ar pasaules tautu vēlmi un reālām iespējām uzlabot savas dzīves apstākļus, nevis īstermiņa, pieļaujot vides degradāciju un piesārņojumu, bet ilgtermiņā, ņemot vērā apkārtējās vides bioloģiskās atjaunošanās kapacitāti, kā arī derīgo izrakteņu un energoresursu racionālu, taupīgu un efektīvu izmantošanu.

Ilgtspējīga celtniecība zinātniskajā literatūrā netiek strikti nošķirta no ilgtspējīga būvniecības produkta, kura ekspluatācijas izmaksas tiek saistītas ar attiecīgajā būvē iestrādātajām tehnoloģijām, būves celtniecībā izmantojamajiem materiāliem un pielietotajām tehnoloģijām. Nereti „ilgtspējīga būve” tiek aizstāta ar “zaļo būvi” un šie jēdzieni tiek lietoti kā sinonīmi. Viens no pirmajiem ilgtspējīgas celtniecības un ilgtspējīgas būves jēdzienu zinātniskajā vidē sāka lietot ASV zinātnieks A. B. Frejs. Savā grāmatā „Zaļo biroju ēku būvēšana – attīstības praktiska rokasgrāmata” (angl. *Green Office Buildings: A Practical Guide to Development*) ilgtspējīgu būvi definē šādi: **ilgtspējīga būve jeb “zaļā būve” - projekta filozofijas rezultāts, kurš tiek cieši saistīts ar resursu – enerģijas, ūdens un būvmateriālu izmantošanas efektivitātes paaugstināšanu,**

būves ietekmes samazināšanu uz cilvēku veselību un apkārtējo vidi visā būves dzīves cikla laikā, pamatojoties uz piemērotas vietas izvēli, veiksmīgu projekta izstrādi un būvniecību, attiecīgās būves ekspluatāciju, uzturēšanu un nojaukšanu labākajā iespējamā veidā. (Frej, Anne B., 2005, p.366)

Kā redzams, šajā definīcijā ilgtspējīga būve tiek apvienota ar ilgtspējīga projekta izstrādi, atbilstošu būvmateriālu izvēli, piemērotu būvniecības procesu un ēkas ekspluatāciju, beidzot ar attiecīgās būves nojaukšanu. C. J. Kiberts ilgtspējīgas būves jēdzienu definē šādā formā: **ilgtspējīga būve** – visaptveroša pieeja būves radīšanas un tās ekspluatācijas procesam, kas ir apkārtējo vidi saudzējošs gan būvniecības laikā, gan visā gatavās būves ekspluatācijas periodā.

Autori definē ilgtspējīgu mājokli kā *inovatīvu būvniecības produktu, kuras ekonomiskā un vides vērtība daudzārt pārsniedz esoša dzīvojamā fonda vērtību un kura attīstība dos ievērojamo ieguvumu tautai, ekonomikai un videi.*

Mājokļiem, kuri tiek būvēti saskaņā ar ilgtspējīgas būvniecības principiem ir sekojoša klasifikācija:

- **augstas energoefektivitātes** (low-energy buildings) ar gadā siltumenerģijas patēriņu mazāk kā 50 kWh/m², parastos projektos 150-200 kWh/m²;
- **pasīvas mājas**, būvniecības procesā izmanto ģeogrāfisko novietojumu, augstas termiskās siltumnoturības materiālus, zaļās enerģijas iegūšanas avotus. Gadā siltumenerģijas patēriņš šajos projektos sasniedz 15 kWh/m²;
- **īpaši energoefektīvas** (zero-energy buildings) – izmanto tikai alternatīvos enerģijas resursus un tiek iedalītas šādi:
 - „Zero net” ēkas – gada laikā piegādā tīklā tikpat daudz enerģijas cik izmanto;
 - „Zero carbon” ēkas – neizmanto enerģiju, kuras rezultāta rodas CO₂ (oglekļa dioksīds) izmeši;
 - „Zero – stand alone” ēkas – nav nepieciešams pieslēgt tīklam, uzkrāj enerģiju naktīm un ziemai;
 - „Plus energy” ēkas – gada laikā saražo vairāk enerģijas nekā patērē. (Gēme, V., 2010)

Kopumā ilgtspējīgi būvētas ēkas rada sekojošo ekonomisko efektu: līdz 16% augstāka tirgus vērtība, 8-9% zemākas apsaimniekošanas izmaksas, 3-5% zemāks nerealizēto platību rādītājs, 3% - augstākas īres maksas, veselīga, komfortabla sadzīves vide, saauzde un taupa dabas resursus. (Sauka, Z., 2010)

Vācijas pilsētā Hannoverē pasīvu daudzdzīvokļu māju siltumenerģijas patēriņš apsildei un ūdens sildīšanai gadā sastāda 56 kWh/m², tas ir par 42% mazāk salīdzinot ar tradicionāli būvētām ēkām. (Golunovs J., 2009 A) Vācijas pilsētā Frankfurtē šobrīd attīstās daudzdzīvokļu pasīvu māju komplekss „Rotlinstrasse”, kur plānots sasniegt siltumenerģijas patēriņu karstā ūdens sagatavošanai 15 kWh/m² gadā un tik pat daudz apkurei, kas kopā sasniegtu 30 kWh/m², kas ir ļoti labs rādītājs. (Golunovs J., 2009 B)

Nemot vērā Lielbritānijas pieredzi, kur „zaļā” ciemata BedZED izbūve, salīdzinot ar parastiem projektiem, izmaksāja par 10–15% dārgāk, (Ērgle A., 2008) arī Latvijā energoefektīvas mājas būvniecības izmaksas varētu būt aptuveni 10–15% dārgākas nekā tradicionālai standarta celtni.

Vācijā publicētajos datos vidējais sadārdzinājums par pasīvajām ēkām ir 8–12%. Šos papildu izdevumus var uzskatīt par beztermiņa investīciju, kur peļņu veido ēkas ekspluatācijas izdevumos ietaupīta nauda. (Jūra L., 2009)

Energoresursu izmaksas aprēķins

Ar 2009.gada 1.novembri A/S „Rīgas Siltums” apstiprināja jaunus siltumenerģijas tarifus iedzīvotājiem, kas sasniedz LVL 32.16 par MW/h, ieskaitot PVN 10%. (Tarifi www.rs.lv, 2009) Pasīvo siltumenerģijas patēriņš gadā uz vienu kvadrātmetru sasniedz 16 kWh. Jaunajā projektā (daudzdzīvokļu nams) – vidēji 100 kWh. Izvēlēsimies par pētījuma objektu vidēju divstābu dzīvokli ar platību 70 m² un aprēķināsim, cik katrs īpašnieks samaksās par gada laikā patērēto siltumenerģiju. Pasīvas mājas dzīvokļa īpašnieks gadā samaksās A/S „Latvenergo” LVL 83.22, jo viņa mājokļa gada enerģijas patēriņš ir 1120 kWh. Šobrīd A/S „Latvenergo” elektroenerģijas tarifs sastāda 0.0743 LVL/kWh, ieskaitot PVN 10%. (Tarifi www.energo.lv, 2009) No minētas summas atņemsim to elektroenerģiju, ko saražo pati māja (apmēram 30%) un iegūsim skaitli LVL 53,02. Standarta projektā īpašnieks attiecīgi gadā patērēs 7.0 MWh siltumenerģijas un samaksās A/S „Rīgas Siltums” LVL 225.12, starpība – LVL 136,08. Vidējais hipotekārā kredīta atmaksas termiņš ir 25 gadi. Pieņemsim, ka pasīvais dzīvoklis bija nopirkts par 600 LVL/m² un dzīvokļa kopēja cena ir LVL 42000.00, bet parastā dzīvokļa īpašnieks nopirka dzīvokli pa 500 LVL/m², attiecīgi samaksājot LVL 35000.00. Kredīta atmaksas periodā pasīvā dzīvokļa īpašnieka ietaupījums par samaksāto siltumu sasniegs LVL 3402.00, pieņemot, ka energoresursu cenas nemainīsies kredīta atmaksas periodā. Rindkopā minētās aprēķina informācijas ticamība ir novērtēta kā augsta. Energoresursu izmaksas aprēķinā tiek pielietotas loģiskās pieejas un statistiskās metodes.

Pastāv maldīgs priekšstats, ka Latvijas klimatiskajos apstākļos saules enerģijas sistēmas nespēj efektīvi darboties. Būtiski ir tas, ka solārās iekārtas darbojas ne tikai tad, kas spīd spoža saule – tās uztver arī izkliedēto saules radiāciju (kad laiks ir apmācies), kas sasniedz zemākos atmosfēras slāņus nepārtraukti – neatkarīgi no laika apstākļiem. Saules enerģiju Latvijā var izmantot līdz pat 1900 stundām gadā. Visaktīvākais izmantošanas periods mūsu platuma grādos ir no maija līdz septembrim. Šajā laikā periodā viena saules baterija ar fotoelementa platību 1m² var saražot 700-740 kWh/m². Laikā periodā no oktobra līdz aprīlim saražotas enerģijas daudzums ir krietni mazāks, bet tomēr ir 200-240 kWh/m², ko var lietderīgi izmantot. Latvijā saules paneli strādā ar 80% efektivitāti, līdz ar to gadā var saražot 800 kWh/m² elektroenerģijas. Solāru enerģiju iegūšanas avotu vidējais kalpošanas laiks sasniedz 25 gadus. (Zaļās tehnoloģijas www.latsolar.lv, 2010)

Uzbūvēto mājokļu dinamika Latvijā 2003.-2008.gados
Dynamics of housing developments between 2003 and 2008 in Latvia

Rādītājs	Rādītāju izmaiņas pa gadiem						08./03.
	2003.	2004.	2005.	2006.	2007.	2008.	
Uzbūvēto mājokļu platība (<i>tkst.m²</i>)	194,2	452,3	552,2	812,6	1 188,40	1 153,20	493,82
<i>pieaugums - %</i>	<i>x</i>	<i>133</i>	<i>22</i>	<i>47</i>	<i>46</i>	<i>-3</i>	<i>x</i>
Uzbūvēto mājokļu skaits (<i>vienības</i>)	830	2 821	3 807	5 865	9 319	8 084	20,3
<i>pieaugums - %</i>	<i>x</i>	<i>631,41</i>	<i>28,7</i>	<i>101,72</i>	<i>24,95</i>	<i>-14,43</i>	<i>x</i>
Uzbūvētā mājokļa vidējā platība (<i>m²</i>)	234	160	145	139	128	143	0,61
<i>pieaugums - %</i>	<i>x</i>	<i>-31,5</i>	<i>-9,5</i>	<i>-4,5</i>	<i>-8,0</i>	<i>11,9</i>	<i>x</i>

Avots LR Centrālais statistikas pārvalde

Mājokļu būvniecības raksturojums Latvijā

Characteristics of apartment building in Latvia

Mājokļu būvniecības kapacitāte Latvijā strauji pieauga pēc 2004.gadā. Latvijas iestāšanās Eiropas Savienībā izraisīja ārvalstu lielu finanšu investīciju pieplūdumu Latvijas ekonomikā. Liels apjoms šo investīciju tika ieguldīts būvniecības nozarē, veicinot pieprasījumu un tam sekojošu piedāvājuma palielināšanos. Turklāt šajā laikā periodā Latvijas iedzīvotājiem pavērās jaunas iespējas saņemt hipotekāros kredītus par salīdzinoši izdevīgiem noteikumiem. Tas viss veicināja strauju mājokļu būvniecības pieaugumu, it īpaši daudzdzīvokļu māju sektorā. Latvijā uzbūvēto mājokļu dinamika skaidri liecina par šā veida būvniecības produkcijas milzīgo pieprasījumu analizētajā laikā periodā.

Apkopojot 1. tabulas datus var secināt, kā laika perioda no 2003. līdz 2009. gadam izbūvēto mājokļu platības lielums ir pieaudzis gandrīz 6 reizes. Individuālo māju skaits par šo laika periodu ir pieaudzis gandrīz 10 reizes. Liela starpība starp izbūvēto platību un mājokļu skaitu ir skaidrojama ar straujo privātmāju būvniecības pieaugumu, un sevišķi savrupmāju un rindu māju ciematu segmentā. Šobrīd šie projekti praktiski nav pieprasīti tirgū. Attīstītāji nevar pabeigt iesāktus ciematus finansējuma trūkuma dēļ, kredītiestādes pārtrauca finansēt projektus, kuri nav pieprasīti tirgū. Savukārt patērētāji nav gatavi pirkt mājokļus ciematos, kur nav izbūvēta nepieciešama infrastruktūra un kuri nav apdzīvoti, bet vel neilgu laiku pirms, kad banku kredīšanas politika bija ļoti elastīga, patērētājs bija gatavs maksāt aizņemtus līdzekļus projekta prezentācijas laikā, kad vel nebija uzsākti celtniecības darbi. No tabulas datiem var secināt, ka mājokļa vidēja platība samazinājās par 80 m², tas nozīmē, ka nekustamā īpašuma pircējs nav gatavs apmaksāt komunālus un apsaimniekošanas izmaksas par liekiem metriem, lielā mājokļa realizācijas termiņš tirgū arī ir garāks. Var secināt, ka tirgus pats neregulēja viss pieprasītāko mājokļa platību, kas šobrīd ir 158m².

Dzīvojamo projektu attīstīšana Latvijā ir gatava atjaunoties un šobrīd, kad projektu realizācijas izmaksas atrodas visizdevīgākajā līmenī, ir īstais brīdis būvēt jaunas paaudzes mājokļus, pielietojot inovatīvas idejas un tehnoloģijas. Šīs būvniecības inovācijas iespējas jau ilgu gadus izmanto Dānijas, Zviedrijas, Norvēģijas, Austrijas, Vācijas un Lielbritānijas būvnieki, arhitekti un nekustamo īpašumu projektu attīstītāji. Dzīvojamā fonda attīstīšanas un realizācijas izmaksas sevī ietver: zemes iegādi, banku finansējumu, projektēšanu, celtniecību, projektu vadību.

Šobrīd viens svarīgākiem nelabvēlīgiem faktoriem, kas kavē kvalitatīvu, inovatīvu un videi draudzīgu mājokļa attīstību Latvijā – banku neelastīgā kredīšanas politika. Un tam ir izskaidrojums, bet ne attaisnojums. Visa 2009. gada garumā lielākās Latvijas kredītiestādes pārņēma savā bilancē kredītņēmējiem atsavinātos īpašumus. Lai sakārtotu šo procesu, bankas ir spiestas dibināt meitas uzņēmumus, kuri faktiski arī pārņem šos nekustamos īpašumus.

2009. gada pavasarī Rīgā netika pārdoti aptuveni 5000 tūkstoši dzīvokļu jaunajos projektos. (Drazdovska, I., 2009)

Gada laikā situācija nav uzlabojusies un bankas gaida labvēlīgu momentu, kad šos īpašumus būs iespējams realizēt bez lieliem zaudējumiem. Uzbūvēto īpašumu celtniecības izmaksas ir lielas, veikto celtniecības darbu kvalitāte ir apmierinoša vai slikta, energoefektivitātes līmenis nav pietiekoši augsts. Secinājums – šie mājokļi pie šī brīža ekonomiskās situācijas un patērētāju zemas pirktspējas nav pieprasīti tirgū, ikdienā prasa uzturēšanas izmaksas (maksā par apsaimniekošanas un komunālajiem pakalpojumiem), projektus ir nepieciešams apsildot, lai nepasliktinātos mājokļu tehniskais stāvoklis. Līdz ar to lielākie Latvijas banku tirgus spēlētāji nav ieinteresēti šobrīd finansēt jaunu un perspektīvu mājokļu būvniecību, jo tad nāksies nojaukt esošos projektus tāpēc vien, ka tie vairs nebūs konkurentsipējīgi ar namiem, kuri tiks būvēti saskaņā ar ilgtspējīgas būvniecības principiem un standartiem.

Latvijas pieredze ilgtspējīgu mājokļu būvniecība ir minimāla. 2009. gada oktobrī ir nodota ekspluatācijā pirmā pasīvā būve – tas ir dzīvojamā māja „Lielkalni”, kuru nevar attiecināt uz daudzdzīvokļu dzīvojamo fondu. 2009. gada nogalē Ērģļu pašvaldība pieņēma lēmumu renovēt arrodvidusskolas dienesta viesnīcu ar pasīvas mājas komponentiem, ko visticamāk, pēc projekta realizācijas var nosaukt par pirmo ilgtspējīgu daudzdzīvokļu namu Latvijā. Finanšu atbalstu šim projektam sniegs LR Vides ministrija Klimata pārmaiņu finanšu instrumenta finansēto projektu ietvaros, finansējuma atbalsts var sasniegt 85% no kopējiem izdevumiem.

Latvijas nekustamo īpašumu projektu attīstītāju problēmas Difficulties of Latvian real estate project developers

Piecu gadu laikā, kopš Latvija ir pilntiesīga ES dalībvalsts, Latvijā nav izveidojusies profesionālu nekustamā īpašuma attīstītāju slānis. Zināmā mērā pie tā ir vainīga pati valsts un tās pārvaldītāji, kuri nepietiekoši rūpējas par to, lai tiktu būvēti kvalitatīvi, ērti un ekspluatācijā lēti mājokļi ar augstu energoefektivitāti. Latvijas normatīvie akti nereglamentē nekustamā īpašuma attīstītāja profesijas prasības un Profesiju klasifikatorā šāda profesija nav iekļauta. Praktiski tas nozīmē, ka valsts distancējas no šīs nozares un neveicina to attīstību un sakārtošanu. Kā liecina autoru praktiskie novērojumi un uzkrātā pieredze, jauna dzīvojamā fonda projektēšanas un būvniecības līmenis jāvērtē kā zems salīdzinājumā ar ES attīstīto valstīs sasniegto līmeni. Attīstītājiem trūkst – pieredzes un izglītības, viņi neprot pieņemt reālajai situācijai atbilstošus un uz nākotni vērstus lēmumus, pietrūkst elementāru zināšanu un nepieciešamās izpratnes arhitektūras un ainavu veidošanas jautājumos, daudzi no viņiem nepazīna būvniecības tehnoloģijas, neorientējas būvniecības materiālu klāstā. Realizējot projektus Latvijas attīstītāji līdz šim nav veikuši pētījumus par patērētāju vajadzībām un vēlmēm, pateicoties ekonomiskajai recesijai jauniem tirgus dalībniekiem nāksies par to domāt.

Valsts institūciju ietekme uz mājokļu būvniecību Impact of public institutions on the housing construction

Ekonomikas recesija ir īstais brīdis sākt apzināti celt nekustamo īpašumu attīstības līmeni un veidot nekustamo īpašumu attīstītāju kultūru. Latvijas dzīvojamā fonda attīstīšanai ir nepieciešamas jaunas idejas un tehnoloģijas. Attiecīgie politiskie lēmumi jau ir pieņemti, bet diemžēl nedarbojas.

2002. gada 30. augustā ar MK rīkojumu Nr.478 pieņemta „Būvniecības nacionālā programma 2002.-2012. gadam”. Šis politiskais dokuments uzliek par pienākumu valdībai realizēt sekojošus pasākumus: mājokļu aģentūras kā valsts politikas īstenošanas izveidošana, efektīvu finanšu instrumentu

ieviešana mājokļu būvniecībai (subsīdijas un dotācijas sociālajam mājoklim, garantijas – atbilstoša mājokļa būvniecībai, mērķkredīti un atbalsta programmas – mērķauditorijai), fiskālās politikas realizēšana mājokļu būvniecības un atjaunošanas veicināšanai, mājokļu sektora padziļinātas izpētes veikšana, ar mājokļiem saistītās normatīvās bāzes pilnveidošana, konsultatīvās palīdzības un apmācību atbalstīšana mājokļu attīstības dalībnieku grupām, konsultatīvo centru izveides veicināšana, informācijas aprites, mājokļu apsekošanas un tehniskās kontroles pilnveide. (Būvniecības nacionālā programma, 2002)

Būvniecības nacionālā programma uzlika par pienākumu valdībai izveidot Mājokļu aģentūru, kas 2003. gadā tika arī izdarīts, bet 2009. gada 1. jūlijā šo struktūru Ministru kabinets pašrocīgi veiksmīgi likvidēja.

2002. gada 15. augustā ar MK rīkojumu Nr.436 pieņemts politiskais dokuments „Latvijas ilgtspējīgas attīstības pamatnostādnes”. Šis dokuments nosaka mājokļu politikas mērķus valstī: taupīt un efektīvi izmantot enerģiju, orientējoties uz atjaunojamās enerģijas avotiem, nodrošināt visus iedzīvotājus ar labu, veselīgu un drošu mājokli efektīvā un elastīgā mājokļu tirgū ar pienācīgu patērētāja tiesību aizsardzību. (Latvijas ilgtspējīgas attīstības pamatnostādnes, 2003)

Kārtējais politiskais dokuments, kas pieņemts pirms septiņiem gadiem, nosaka spēles noteikumus nekustamo īpašumu projektu attīstītājiem. Neraugoties uz to, nevienā daudzdzīvokļu dzīvojamā namā, kuri izbūvēti laikā periodā no 2004.-2009. gadam, nav izmantoti atjaunojamās enerģijas avoti, tādi kā vēja enerģija, saules kolektori vai gaisa rekuperācija. Politiskā dokumenta mērķus vajadzēja iestrādāt būvnormatīvos, kas netika izdarīts līdz šim.

2006. gada 1. augusta Ministru kabinets ar savu rīkojumu Nr.571 pieņēma „Enerģētikas attīstības pamatnostādnes 2007.-2016. gadam”. Šajā politiskajā dokumentā ir teikts, ka Latvija tikai par 36% nodrošina sevi ar energoresursiem, pārējo daļu mēs importējam. Tāpēc nepieciešama „zaļo” energoresursu ražošanas tehnoloģiju ieviešana un attīstīšana. (Enerģētikas attīstības pamatnostādnes, 2007)

Enerģija, ko patērē ēkas, veido vairāk nekā 40% no Eiropas valstu primārā enerģijas patēriņa, bet Latvijā pat 60%. Lai samazinātu šo patēriņu un veicinātu dzīvojamā fonda ilgtspējīgu attīstību, ES jau ir pieņemti un top vairāki šā sektora energoefektivitātes paaugstināšanas normatīvie akti. Pašreiz ir aktuāla direktīva 2002/91/EC „Par enerģētiskajiem ēkas parametriem”. Direktīva ir Eiropas Savienības politiskais dokuments, kuru obligāti jāieestrādā nacionālajā likumdošanā. (Krēsliņš, A., Borodiņecs, A., 2009)

Saskaņā ar Eiropas ekspertu novērtējumu, ieviešot direktīvu 2002/91/EC, līdz 2020.gadam iespējams panākt enerģijas ekonomiju ēkās līdz pat 22%. Viens no svarīgākajiem un atbilstošākajiem mehānismiem ēku energoefektivitātes paaugstināšanā ES ir ēku enerģētisko parametru novērtēšana, kuras galvenais

mērķis ir veicināt galapatērētāju interesi, aicinot iedzīvotājus efektīvāk izmantot enerģijas resursus. (Krēsliņš, A., Borodņecs, A., 2009)

„Ēku energoefektivitātes” likums, kas ir spēkā ar 2008. gada 16. aprīli nereglamentē ilgtspējīgu būvniecību, neskatoties uz to, ka likuma mērķis ir energoresursu racionāla izmantošana un ēku energoefektivitātes uzlabošana. Šobrīd Latvijas Republikas Ekonomikas ministrija izstrādā „Atjaunojamo energoresursu” likumu, kuru mērķis veicināt enerģijas, kas iegūta no atjaunojamiem energoresursiem, izmantošanu. Šie mērķi sakrīt ar ilgtspējīgas būvniecības principiem. Ekonomikas ministrs sola pieņemt šo normatīvu aktu vēl šīs Saeimas pilnvaras laikā. Veicinot „zaļās” enerģijas ražošanu, politiķiem ir jāievieš subsidiijas ne tikai komersantiem, un kuriem plānots veikt obligātas enerģijas iepirkumus, bet arī mājsaimniecībām, kuri vēlas izmantot saules kolektorus vai vēja ģeneratorus, bet nevar tos iegādāties lielas pārdošanas cenas dēļ.

Eiropas Savienības ietekme uz Latvijas dzīvojamā fonda attīstīšanu

Impact of the European Union on housing development in Latvia

2008. gada 17. decembrī Eiropas Parlaments pieņēma „Atjaunojamo enerģijas avotu izmantošanas” direktīvu kā klimata pārmaiņu novēršanas plāna sastāvdaļu. Šajā direktīvā noteikti visu Savienības dalībvalstu mērķi attiecībā uz atjaunojamo energoresursu procentuālo palielinājumu valsts kopējā energobilancē, un būvniecības sektoram šo plānu realizācijā ir ļoti būtiska, pat izšķiroša nozīme. Atjaunojamo enerģijas avotu aktīvāka izmantošana ēkās ir iekļauta kopējā „zaļās enerģijas” procentuālā palielinājuma aprēķinā. Tas nozīmē, ka ēku un būvniecības sektorā visās ES valstīs tika aktīvāk izmantota saules, vēja, ģeotermālā un no biomasas iegūstamā enerģija, kā arī citas – uz atjaunojamo energoresursu apgūšanu bāzētas, inovatīvas tehnoloģijas. Būtisks jauninājums, kas iestrādāts direktīvas tekstā, ir atziņa par nepieciešamību izmantot arī āra gaisa, ūdens un zemes siltumu, ja reģiona vai valsts sezonālie klimatiskie apstākļi tam ir piemēroti. Papildus Eiropas Parlaments gatavo jauno ēku energoefektivitātes direktīvu, kurā tiks iestrādāts noteikums, ka sākot ar 2019. gadu visām jaunajām ēkām jāsarāž tikpat daudz enerģijas (piemēram, ar saules paneļiem un siltuma sūkņiem), cik tās patērē. Deputātu grozījumi ievieš direktīvā saistošus mērķus attiecībā uz nulles enerģijas ēkām, ko neparedzēja Eiropas Komisijas sagatavotais priekšlikums. Grozījumi tālāk tiks iesniegti izskatīšanai dalībvalstu ministriem ES Padomē, ar kuru Parlaments par likumprojektu lemj ar vienādām tiesībām. (Sepänen, O. 2009)

Eiropas Savienība piešķir Latvijas Republikas Ekonomikas ministrijai finansējumu daudzdzīvokļu dzīvojamā fonda energoefektivitātes celšanai, kas būvēts laikā perioda no 1945. līdz 1993. gadiem. Ekonomikas ministrija attiecīgi izstrādāja finansējuma apgūšanas programmu, kura darbojas kopš 2009. gada aprīļa. Daļu no piešķirta finansējuma,

var novirzīt ilgtspējīgu mājokļu attīstībai. Savukārt Latvijas Republikas Vides ministrija rīkojas ar CO₂ izmēšu kvotām, kuru pārpalikumu realizē pasaules tirgū, daļu no iegūtiem līdzekļiem ministrija var novirzīt ilgtspējīgai būvniecībai. Autori uzskata, ka Ekonomikas un Vides ministrijām ir nepieciešams kopīgi izstrādāt ilgtspējīgu mājokļu finanšu atbalsta instrumentus, lai attīstītu ilgtspējīgu būvniecību Latvijā. Šobrīd Ekonomikas ministrija atbild par mājokļu un būvniecības politiku valstī, bet Vides ministrija par vides jautājumiem. Abas ministrijas savā starpā politiski konkurē, kas neļauj tiem apvienot savu zinātnisku un finanšu potenciālu ilgtspējīgas būvniecības attīstīšanai. Par abu ministriju nesaskaņu liecina atšķirīgs viedoklis par biogāzi, kura ir iegūta no atkritumiem. Ekonomikas ministrija to pieskaita pie „zaļās” enerģijas avotiem, Vides ministrija šādai nostājai nepiekrīt. Autori uzskata, līdzīgi, kā tiek atbalstīta dzīvojamā fonda renovācija, valsts ir spējīgs atbalstīt nekustāmo īpašumu projektu attīstītājus, kuri gatavi realizēt jaunas paaudzes mājokļus, sedzot tiem būvzmaksu sadārdzinājumu, salīdzinot ar konvenciālo būvniecību. Tādejādi patērētājam nevajadzēs pārmaksāt par ilgtspējīgo dzīvokli un tas tiek finansiāli motivēts iegādāties ilgtspējīgu mājokli. Šo atbalsta instrumentu var realizēt „Publiskās un privātas partnerības” likuma ietvaros.

Ilgospējīgas būvniecības vērtēšanas metodoloģijas, pieejas un vērtēšanas instrumenti

Sustainable construction valuation methodologies, approaches and tools for assessment

Daudzu valstu būvniecības pētniecības institūti šobrīd ir pievērsušies detalizētai ilgtspējīgas būvniecības parametru noteikšanai un lokālajai videi piemērojamu sistēmu izstrādei. Šādu pētniecisko aktivitāšu mērķis ir vērst uz to, lai definētu būvniecības vai būvju ekspluatācijas parametrus, kas varētu raksturot to kvalitāti gan kāda konkrēta uzdevuma kontekstā, gan kopumā. Pētniecisko institūciju īstenoto projektu rezultātā ir tapušas vērtēšanas metodoloģijas, standarti, mērījumu instrumenti un reitinga sistēmas, kuras ir klasificējamās kā: vides novērtēšanas instrumenti, izmaksu novērtēšanas instrumenti (piemēram, dzīves cikla izmaksu instrumenti, enerģijas patēriņa aprēķinu instrumentu EN13790 un arī ilgtspējīgas būvniecības reitinga sistēmas BREEAM, LEED, Green Star). (Nātriņš, A., 2010)

Savukārt, Eiropas pētniecības projekta LEnSE (Label for Environmental, Social and Economic Buildings – apkārtējās vides un sociāli-ekonomiskās būves standarts – autoru tulkojums) izstrādes rezultātā, ir izveidota ilgtspējīgas būvniecības metodoloģija. Tās mērķis ir, balstoties uz Eiropā pieejamām zināšanām par būvniecības vērtēšanas metodoloģijām, piedāvāt metodoloģiju ilgtspējīgas būvniecības vērtēšanai. Šo projektu finansiāli atbalsta Eiropas Komisija. (Nātriņš, A., 2010)

Šobrīd pasaulē ir izstrādāti sekojoši ilgtspējīgas būvniecības reitinga instrumenti: BREEM (Lielbritānija), LEED (ASV), Green Star (Austrālija), HQE (Francija), Protocolo Itaca (Itālija), CASBEE (Japāna).

Globālā mērogā tie ir vispopulārākie ilgtspējīgas būvniecības reitinga instrumenti. Šie instrumenti paredz augstāku standartu, nekā tas noteikts valstu likumdošanā un to izmantošana ir brīvprātīga, taču valstu valdības pēdējo gadu laikā arvien biežāk apņemas noteiktu procentu no publiskā iepirkuma apjoma īstenot, piemērojot paaugstinātu ilgtspējīgas būvniecības standartu. Divdesmita gadsimta 90. gadu sākumā Lielbritānijā BRE institūts izstrādāja *Building research establishment's environmental assessment method* – BREEAM (būves iespauda novērtējuma metode uz apkārtējo vidi – autoru tulkojums), kas ir uzskatams par pirmo šāda tipa ilgtspējīgas būvniecības reitingu metodi, kura ir ietekmējusi arī daudzas no pieminētajām citu valstu metodēm. Savukārt daudzu valstu ilgtspējīgas būvniecības pētniecības institūti ir adaptējuši BREEAM platformu atbilstoši lokāliem nosacījumiem. Šī novērtēšanas metodes vērtējumā iekļauj šādas jomas: enerģija (enerģijas patēriņš un CO₂ izmeši), pārvaldība (menedžmenta politika, nodošana ekspluatācijā, projekta vadība, iepirkums), veselība un labklājība telpās un ārējā vidē, transports (saistībā ar tā radīto piesārņojumu), ūdens (patēriņš un efektivitāte), materiāli (ietekme uz vidi, dažādu celtniecības materiālu izmantošana to dzīves cikla garumā), atkritumu utilizācija, zemes izmantošana, piesārņojums, ekoloģija.

Katrā no šīm jomām projektam vai būvei piešķirti punkti, kas tiek apkopoti vienā vērtējumā, izmantojot reitinga skalu: apmierinošs, labs, ļoti labs, izcils.

Novērtējot BREEAM, OECD (Organisation for economic co-operation and development. Starptautiska organizācija ekonomiskajai sadarbībai un attīstībai dibināta 1961.gadā, Latvija nav šīs organizācijas dalībvalsts) publicētajā pētījumā ir atzīmēts tas, ka būvēm, kuras ir saņēmušas BREEAM reitingus, ir zemāks CO₂ emisijas apjoms, zemākas ekspluatācijas izmaksas. Tās ir saistītas ar zemāku enerģijas patēriņu un rada iespēju noteikt augstākas īres maksas. (Nātriņš, A., 2010)

Analizējot šo informāciju autori secina, ka Latvija nav gatava ilgtspējīgas būvniecības ieviešanai, jo nav izstrādāti attiecīgi kritēriji. Latvijai nekavējoties jāuzsāk šo obligāto standartu izstrādi un ieviešanu būvnormatīvos. Attīstītajos valstīs valdības un ieinteresētie uzņēmēji strādā pie brīvprātīgo ilgtspējīgas būvniecības standartu paaugstināšanu. Latvijā ilgtspējīgas būvniecības novērtēšanas un sertifikācijas brīvprātīga instrumenta (IBNI) izstrādi ir uzskāusi biedrība „Zaļās mājas”, par pamatu tiek ņemta BREEAM metodoloģija.

Ilgtspējīgu mājokļu tehniskais raksturojums

Technical characteristics of sustainable housing

„Zaļās” un pasīvas enerģijas dzīvojamās mājas būvniecības un ekspluatācijas koncepcijā

tiek iekļautas šādas pamatnostādnes un objekta būvniecībai jāsaucas ar:

- pareizas izvietojuma attiecība pret debespusēm, lai māja varētu maksimāli izmantot saules starojumu un attiecīgi mazāk izmantot energoresursus. Lielākie logi pret dienvidiem, pietiekams noēnojums vasarā. (Jūra L., 2009) Mājokļu pareiza izvietojuma samazina arī siltuma izplūšanu un izvēdināšanu no tiem. Obligāti ir jāņem vērā klimatiskie apstākļi. Latvijas klimats ir mērens, pārejošs uz kontinentālo. Kopumā laika apstākļus ietekmē atlantiskās gaisa masas, bet uz Latvijas teritorijas iekšzemes pusi tās kļūst kontinentālākas. Vidējais nokrišņu daudzums ir 500-800 mm gadā. Gada vidējā gaisa temperatūra sasniedz +5.6°C, ziemā -5.0°C, vasarā +16.0°C. Valdošie ir rietumu virzieni vēji. Visintensīvāk vēja ietekme izpaužas Baltijas jūras un Rīgas jūras līča piekrastē, Rietumkurzemes, Vidzemes centrālajā un Alūksnes augstienēs. Stipri vēji visbiežāk atkārtojas ziemas mēnešos, notiek spēcīga augsnes erozija (augšnes daļiņu pārvešana vēja darbības rezultātā), sevišķi, ja zemi neklāj sniegs. Labiekārtojot mājas teritoriju, attīstītajiem ir jāveido „zaļās” fasādes – šķēršļi, kas vēju nevis novirza, bet „nobremzē”, laižot cauri lapām, zariem, šķiedrām, tādējādi atņemot tam daļu enerģijas. Visoptimālākā ir 40-50% caurlaidība, turklāt tai būtu jāpalielinās virzienā no apakšas uz augšu, pretējā gadījumā veidojas spraugas, kas vēja ātrumu pastiprina. (Zigmunde D., 2009)
- Solārās (saules) enerģijas aktīva izmantošana. Saules enerģiju var aktīvi pielietot, izmantojot saules fotoelementus, siltumu un gaismu caur pareizi izvietotiem logiem. Lielbritānijā, Vācijā un Čehijā saules kolektoru ierīkošanas izmaksas samazina valsts. (Ērgle A., 2008) Latvijā tāda programma vēl nav ieviesta. Neskatoties uz to, Latvijai ir liels potenciāls solārās enerģijas ražošanā. Salīdzinot Rīgu ar citām Ziemeļu Eiropas galvaspilsētām, var secināt, ka gada vidējais saules starojuma daudzums uz vienu kvadrātmetru Rīgā ir viens no vislielākajiem – 1109 kWh/m², Helsinkos arī 1109 kWh/m², Stokholmā – 1026 kWh/m², Berlīnē – 1031 kWh/m², Kopenhāgenā tikai 1013 kWh/m². (Fedotovs, A. 2009) Šo enerģētiskās potenciālu mums ir jāizmanto. Solārās enerģijas iegūšanas avoti dalās divās grupās – saules fotoelementi un kolektori. Fotoelementi uzkrāj saules enerģiju un padod tīkla kad ir nepieciešams, bet kolektori kalpo tikai, kā karstā ūdens sildīšanas avots. Lai efektīvi izmantot saules starojumu abas ierīces jāizmanto kopā.
- Mājas būvniecībā otrreiz izmanto celtniecības materiālus (ķieģeļi, koka dēļi un citi). Tā rezultātā nav nepieciešams ražot jaunus ķieģeļus, koka apdares materiālus.
- Logi ir ļoti svarīgs elements, un tiem jābūt ar trīskāršu stiklojumu un papildus izolētiem rāmjiem. Pakešu pildījums ir argona gāze. Stiklojuma saules starojuma caurlaidībai jābūt lielākai par 50%. (Jūra L., 2009)

- Speciālās tvertnēs tiek savākts lietus ūdens, kas tālāk tiek izmantots klozetpodos un stādu laistīšanai. Tas dod iespēju dzīvokļu īpašniekiem nemaksāt par šādu ūdens izmantošanu un taupīt līdz pat 15% no ikmēneša ūdens patēriņa.
- Sadzīves atkritumu rūpīga šķirošana un komposta ražošana mājas teritorijā dod iespēju izmantot kompostu augu un stādu piebarošanai, tāpēc reāli saražoto atkritumu daudzums, par kuru ir jāmaksā naudu, ir minimāls. (Ērgle A., 2008)
- Pasīvas enerģijas mājojļos siltumapgādes sistēma parastajā izpratnē (radiatori, katli, caurules) neeksistē, apsildes un atdzesēšanas lomu šeit spēlē rekuperācijas tipa mehāniskā gaisa ventilācijas sistēma, kurā paredzēts, ka no dzīvokļa gaisa izejošais sasilta ienākošo. Lietderības koeficientam jābūt ne mazāk par 80%. (Jūra L., 2009)
- Karstā ūdens cirkulācijas kontūram jābūt ar minimāliem siltuma zudumiem, un karstā ūdens sagatavošanai jāizmanto atjaunojamie energoresursi – saules kolektori un siltumsūkņi kopā, jo tikai ar saules enerģiju uzsildīt ūdeni Latvijā nav iespējams. Siltumsūkņiem jābūt ekonomiskiem un efektīviem – tikai tad tos var nosaukt par nopietnu „zaļās enerģijas” tehnoloģiju. (Sepänen, O. 2009)
- Komunālo pakalpojumu skaitītāji atrodas dzīvoklī redzamā vietā un ar sarkanām lampiņām vai skaņas signālu informē iemītnieku par pakalpojuma pārtēriņu. Mājā ir jāizveido centralizēta digitālu komunālo pakalpojumu uzskaites sistēma, kad rādījumus var nolasīt, neapmeklējot dzīvokli.

Zviedru vai vācu „zaļo jumtu” tehnoloģija Latvijā arī netiek pielietota. Mājas jumta segums ir noklāts ar zālīti, kur aug nelieli koki un krūmi. Šis ilgtspējīgas būvniecības elements dod lielisku efektu putekļu mazināšanai dzīvokļos, jo visi ventilācijas kanāli atrodas uz jumta. Zāle un augi absorbē putekļus un ventilācijas sistēma nogādā uz dzīvokli tīro gaisu.

Secinājumi Conclusions

Latvijā joprojām saglabājas dzīvojamā fonda deficīts vidējā mājojļa platība uz vienu iedzīvotāju ir apmēram par 2-3 reizēm mazāka nekā Eiropas Savienības valstīs. Ņemot vērā šo faktu valsti ir nepieciešams finansiāli atbalstīt ilgtspējīgu mājojļu intensīvu būvniecību. Šobrīd Vides ministrijas mājas lapā ver redzēt nākošo projektu ieceres, kur arī minēti siltumenerģijas zema patēriņa ēku pilotprojekti. Tas liecina par to, ka valsts ir gatava atbalstīt uzņēmēju iniciatīvas ilgtspējīgu mājojļu būvniecībā. Protams, šim procesam nebūs masveida raksturs, bet tie uzņēmēji, kuri ir spējīgi iekārot mājojļu tirgu ar jaunu produktu var saņemt finanšu atbalstu. Cik liels būs tas atbalsts grūti prognozēt, bet analizējot esošas programmas var pieņemt, ka atbalsts var sasniegt 35-50% no kopējiem izdevumiem. Šajā procesā var iesaistīt

Latvijas pašvaldības, kurām ir aktuāla dzīvokļu palīdzības problēma. Pašvaldības var sadarboties ar attīstītājiem, izmantojot PPP modeli un ieguldot projektos zemi. Attiecīgi pēc projekta realizācijas proporcionāli ieguldītas zemes vērtības pašvaldības iegūs īpašuma tiesības uz ilgtspējīgiem dzīvokļiem. Tas ir ļoti svarīgi, jo pārsvara ar sociāliem mājojļiem nodrošina iedzīvotājus ar zemiem ienākumiem, kuri nespēj regulāri veikt komunālo pakalpojumu apmaksu un šie parādi papildus balstās uz pašvaldību budžetiem.

Ir piešķirts valsts finansējums ilgtspējīgas būvniecības kritēriju izstrādei, darbu plānots pabeigt 2010.gadā. Šos kritērijus būs jāiestrādā Latvijas būvnormatīvus, lai tiem būtu obligāts raksturs.

Pētījuma rezultāti:

1. ir identificēts ilgtspējīgs mājojklis, kā arī ir definētas priekšrocības salīdzinājumā ar konvenciālo mājojkli;
2. ir definēti ilgtspējīga mājojļa tehniskie un ekonomiskie rādītāji;
3. ir veikta Latvijas un ES normatīvo aktu analīze atbilstībai ilgtspējīgu mājojļu sekmīgai attīstībai;
4. ir atspoguļotas iespējas paaugstināt energoresursu izlietošanas efektivitāti un apsaimniekošanas izmaksu samazināšanu ilgtspējīgos mājojļos.

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